

January 2012

Kentucky Speech-Language Pathologists' Confidence And Education In Providing Services To Spanish-English Bilingual Children In The Public Schools

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KENTUCKY SPEECH-LANGUAGE PATHOLOGISTS' CONFIDENCE AND
EDUCATION IN PROVIDING SERVICES TO SPANISH-ENGLISH BILINGUAL
CHILDREN IN THE PUBLIC SCHOOLS

By

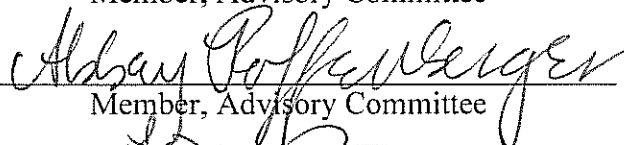
LEAH COOLEY

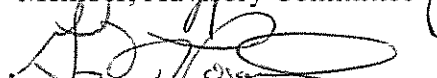
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CHILDREN IN THE PUBLIC SCHOOLS

By

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Bachelor of Science
Eastern Kentucky University
Richmond, Kentucky
2010

Submitted to the Faculty of the Graduate School of
Eastern Kentucky University
in partial fulfillment of the requirements
for the degree of
MASTERS OF ARTS IN EDUCATION
August, 2012

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DEDICATION

This thesis is dedicated to my parents who have supported, encouraged, and inspired me to live a life that gives glory to God and to always help others.

ACKNOWLEDGMENTS

I am very appreciative of my thesis committee members. Without their guidance, this thesis would not have been completed. I would like to thank Dr. Tamara Cranfill for taking on the task of being my thesis advisor. She is a very wise and patient professor. I have appreciated all the advice, motivation, and encouragement she has given me. Also, I would like to thank my statistician, Dr. Michelle Smith, for her willingness to meet with me outside of office hours on many occasions. Without her assistance, my thesis would not be as statistically sound. She has been a great support over the past two years, and I greatly appreciate her insight. I would like to thank Dr. Sue Mahanna-Boden, who gave me guidance from the early stages of my research, and Professor Abbey Poffenberger, who provided her expertise on Hispanic/Latino culture. Finally, I am appreciative of the time Dr. Stephanie Adamovich spent as my former thesis advisor. She provided emotional support and encouragement while on my committee.

ABSTRACT

The American Speech-Language-Hearing Association (ASHA) has mandated that all speech-language pathologists (SLPs) competently assess and serve children from diverse cultural backgrounds (ASHA, 2010). In Kentucky, there has been a 121% increase in the Hispanic population in the last ten years (O'Neill, 2011). As the population of Kentucky becomes more diverse, it is essential that SLPs have cultural competence and confidence in serving clients with culturally-linguistically diverse backgrounds. The purpose of this study was to compare the amount of multicultural pre-service training and continuing education Kentucky SLPs have received to the amount received by the SLPs surveyed in the larger studies by Hammer, Detwiler, Detwiler, Blood, and Qualls (2004) and Roseberry-McKibbin, Brice, and O'Hanlon (2005). Ninety SLPs employed by public schools in Kentucky were selected using a stratified random sample with proportional allocations. Forty-six SLPs responded to a questionnaire that examined their competence and confidence serving Spanish-English bilingual students. Questionnaire items were selected from previous research studies by Hammer et al. (2004) and Roseberry-McKibbin et al. (2005). Results from this study suggested more pre-service training and continuing education are warranted when serving Spanish-English bilingual students. Additional research was suggested to determine the manner in which pre-service training should be provided and what competencies should be addressed.

TABLE OF CONTENTS

CHAPTER	Page
I. INTRODUCTION	1
II. LITERATURE REVIEW	3
Roles and Responsibilities	4
Difference versus Disorder	5
Pre-service Training to Serve ELL Students	7
Perceived Confidence and Competence.....	9
Purpose.....	12
III. METHODOLOGY	13
IV. RESULTS	17
Participant Data.....	17
Questionnaire Responses	17
V. DISCUSSION.....	23
Review and Discussion of Results.....	23
Pre-service Training.....	23
Competency	24
Perceived Confidence	27
Correlation between Pre-service Training and Confidence.....	28
Strengths and Limitations	29
Implications.....	30
Conclusions.....	31
LIST OF REFERENCES	33
APPENDICES	36
A. Questionnaire	36
B. Email Cover Letter to SLPs	45
C. Email Cover Letter to DOSE or Senior SLP.....	47
D. Tables	50

LIST OF TABLES

TABLE	PAGE
3.1 Participants.....	51
4.1 Demographic Information.....	51
4.2 Amount of Pre-service Training Concerning Multicultural Issues-Hammer et al. (2004).....	52
4.3 Amount of Pre-service Training Concerning Multicultural Issues-Roseberry-McKibbin et al. (2005).....	52
4.4 Cultural Topics Covered in Undergraduate or Graduate Courses	53
4.5 Service Delivery Covered in Undergraduate or Graduate Courses	53
4.6 Number of Topics Covered in Undergraduate or Graduate Courses.....	54
4.7 “Very Frequent” (1) or “Frequent” (2) Problems Serving Spanish-English Bilingual Students.....	54
4.8 Confidence Serving Spanish-English Students.....	55
4.9 Correlation of Pre-service Training and Confidence Levels of Participants	55
4.10 Types of Continuing Education Received	56
4.11 Topics Covered at In-services and Workshops.....	56
4.12 “Extremely Interesting” (1) or “Quite Interesting” (2) Topics for Future Continuing Education	57

LIST OF ABBREVIATIONS

AS	Academic Study
ASHA.....	American Speech-Language-Hearing Association
CD.....	Communication Disorders
CE	Cultural Experience
DOSE	Director of Special Education
ELL	English Language Learner
PI.....	Primary Investigator
<i>M</i>	Mean
M.....	Monolingual
SLP	Speech-Language Pathologist

CHAPTER 1

INTRODUCTION

The American Speech-Language-Hearing Association (ASHA) has mandated that all speech-language pathologists (SLPs) competently assess and serve children from diverse cultural backgrounds (ASHA, 2010). ASHA (2004) defines cultural competence for SLPs as “sensitivity to cultural and linguistic differences that affect the identification, assessment, treatment, and management of communication disorders/ differences in persons” (pg.2). As the population of Kentucky becomes more diverse, it is essential that SLPs have cultural competence and confidence in serving clients with culturally-linguistically diverse backgrounds. The number of children in Kentucky who have limited proficiency in English has increased from 1,300 students in 1990 to over 11,000 students in 2005 (Childress, 2006). Fifty-nine percent of these students speak Spanish as their primary language. Furthermore, 49% of these students were not born in the United States (Childress, 2006). The Kentucky Department of Education (2010) reported that there were 20,376 Hispanic students in Kentucky during the 2009-2010 academic year. Hispanic students make up approximately 3% of the total student population (Kentucky Department of Education, 2010). This expanding diversity increases the likelihood that SLPs will have clients with culturally-linguistically diverse backgrounds on their caseloads (Hammond, Mitchell, & Johnson, 2009). Academic program reports include the extent of culturally-linguistically diverse preparation provided for graduate students in speech-language pathology (Hammond, Mitchell, & Johnson 2009). These reports support the need for additional preparation at the graduate school level. The amount of instruction SLPs receive to provide services to culturally and linguistically diverse

students affects SLPs' perceptions of their capability to serve this population (Hammond et al., 2009). Roseberry-McKibbin, Brice, and O'Hanlon (2005) found that SLPs who worked in the school system and had completed an entire course in preparation to serve bilingual students encountered fewer challenges than those who had not. This evidence supports a pattern that SLPs who have taken courses regarding service delivery to culturally-linguistically diverse students are more confident in their abilities to serve this population, or perhaps that they may encounter fewer problems resulting from their acquired knowledge.

Hammer et al. (2004) surveyed 213 SLPs from 41 states and found that one-third of the sample had not received multicultural training as undergraduate or graduate students. These SLPs demonstrated confidence when assessing and serving bilingual students whose primary language was English, but they had less confidence when assessing and serving students whose primary language was Spanish. When SLPs had not received sufficient training to serve English language learners, there was a substantial risk of providing inadequate services (Roseberry-McKibbin et al., 2005).

CHAPTER 2

LITERATURE REVIEW

In the last decade, the Hispanic population in the United States has grown by 43% to exceed 50 million people. Currently, one out of six Americans is Hispanic (Caesar, 2011). By 2050, it is estimated that Hispanics could make up a third of the population. Arizona, California, Colorado, Florida, Illinois, New Mexico, New Jersey, New York, and Texas have had the largest consistent number of Hispanics. However, the Hispanic population has begun to disperse (Caesar, 2011). According to the 2010 census (as cited in Caesar, 2011), the Hispanic population has more than doubled in Alabama, Mississippi, Arkansas, South Carolina, North Carolina, and Kentucky (Caesar, 2011).

According to the 2000 census (as cited in O'Neill, 2011), there were 59,939 Hispanics living in Kentucky. In the 2010 census (as cited in O'Neill, 2011), it was determined that there were 132,836 Hispanics living in Kentucky. This equates to a 121% increase in the Hispanic population over the last ten years (O'Neill, 2011). Specifically, the Hispanic populations within Fayette and Jefferson counties have more than doubled. The Hispanic population in Fayette County reached 20,000. This increase makes up almost 7% of the county's total population of 295,803. Local analysts have determined that the Hispanic immigration to Kentucky has stabilized recently (Hjalmarson, 2011). A more permanent Hispanic population means more children will likely be enrolled in public schools. Consequently, these schools will need appropriate resources to provide adequate services to Hispanic children (Hjalmarson, 2011).

Roles and Responsibilities

The 2006 Individuals with Disabilities Education Act (IDEA, 2006) addresses regulations about serving culturally-linguistically diverse students with disabilities. For example, speech-language pathologists (SLPs) must give assessments in a child's native language without cultural bias. Non-standardized assessment procedures can be used to provide qualitative data on the child's communication skills. IDEA also recommends an interpreter be present for Individualized Education Plan (IEP) meetings in order to interpret for the academic guardians if they do not speak English. Additionally, the child's lack of proficiency in English should be taken into account in developing the IEP (ASHA, 2006).

The American Speech-Language-Hearing Association (ASHA) has mandated that all speech-language pathologists (SLPs) competently assess and serve children from culturally-linguistically diverse backgrounds (ASHA, 2010). In the article "Cultural Competence in Professional Service Delivery" (ASHA, 2011b), culture was defined as "the integrated pattern of learned behavior, including thoughts, communications, knowledge, beliefs, and values of a group, that is passed down from one generation to the next" (Definition of the Topic section, para. 1). ASHA (2004) defined cultural competence for SLPs as "sensitivity to cultural and linguistic differences that affect the identification, assessment, treatment, and management of communication disorders/ differences in persons" (p.2). ASHA Principle of Ethics I, Rule C states that, "individuals shall not discriminate in the delivery of professional services" (ASHA, 2011a, p.3).

SLPs are encouraged to develop skills throughout their careers in order to be competent and to provide culturally and linguistically appropriate services to English Language Learners (ELL) on their caseloads (ASHA, 2011b).

According to the National Center for Cultural Competence (2011b), some reasons SLPs should be culturally competent include: (a) to respond to the changing demographics in the United States, (b) to stop the continued inequality of health status of people from different cultural backgrounds, (c) to provide better services and health outcomes, (d) to meet required mandates, (e) to obtain a competitive advantage in the marketplace, and (f) to decrease likelihood of being sued for malpractice. Cultural competence requires standards, characteristics, awareness, and skills to work successfully with cross-cultural individuals (ASHA, 2011b). A culturally competent person recognizes the significance of culture, evaluation of cross-cultural associations, dynamics resulting from cultural variations, the increase of cultural knowledge, and the modification of services to meet cultural needs (ASHA, 2011b).

Difference versus Disorder

Knowledge and understanding of assessment for culturally-linguistically diverse students greatly affects how SLPs interpret data and which students receive services (Kritkos, 2003). Bilingual students do not qualify for special education services, specifically speech-language pathology services, if assessments indicate that they have a language difference rather than a disorder. Language difference means the student's first language is developing normally, but there is a noticeable difference in the second language, typical for normal acquisition of that language.

Students will qualify for speech-language services if they have a language disorder where there are comprehension and/or production impairments in both of the student's spoken languages (Sietel & Garcia, 2009).

The Kentucky Department of Education (2012) defines English language learners (ELL) as students who enter school with a primary language other than English. These children receive English as a second language services (ESL) because of their language difference as standard practice in the public schools. It is necessary that the SLP understand first and second language acquisition to determine whether or not the ELL student will need speech and language services in addition to ESL services. The SLP must understand the rules of different dialects and languages, recognize patterns of typical use and communication breakdown in languages, recognize dialects of children on their caseloads, and understand the impact of the English language on the development and use of other languages in typical and atypical communicators (Kohnert, Kennedy, Glaze, Kan, & Carney, 2003). Additionally, SLPs must be skilled at choosing appropriate assessment materials and intervention techniques while working with culturally-linguistically diverse families and other professionals who serve ELL students (American Speech-Language-Hearing Association Multicultural Issues Board, 1998). Knowledge of placement procedures is necessary to serve the identified ELL students with communication disorders (Kritikos, 2003). The skill set for an SLP is very different than that of an ESL teacher. ESL instructors are knowledgeable in second language acquisition theory, ESL methodologies, assessment, and practicum. SLPs who have not been specifically trained in ESL and who are not competent to serve ELL students should not provide direct ESL instruction. However, they can provide indirect instruction and

collaborate with the ESL teacher during pre-assessment, assessment, and intervention and vice versa. It is not mandatory that the SLP and ESL instructors collaborate, but it is an option that would likely benefit the child (ASHA Multicultural Issues Board, 1998).

Pre-service Training to Serve ELL Students

The ASHA Council on Academic Accreditation (CAA) has established standards to clarify what is expected to provide services for English language learners. In 1994, ASHA required that undergraduate and graduate level communication disorders (CD) and audiology programs include multicultural issues as a part of their academic course work. Additional requirements were added in 2005 that required programs to give students opportunities to have practicum experiences working with multicultural clients (Hammond, Mitchell, & Johnson, 2009). Academic programs have faced many challenges meeting these standards. Many faculty members do not have an educational background on multicultural content because most completed their education before this curriculum was taught (Stockman, Boulton, & Robinson, 2004). According to Stockman and colleagues (2004), “The knowledge base on multicultural issues was not clearly defined for our professions early on, although it has evolved rapidly over the past decade” (p.1). Stockman, Boulton, and Robinson surveyed 731 faculty and clinical supervisors at programs that had been accredited by the ASHA Council of Academic Accreditation in Audiology and Speech-Language Pathology (CAA) in the United States and Puerto Rico. They found that many professors report difficulties teaching multicultural content. The survey respondents requested better guidelines for including multicultural content in classes and clinical settings and access to instructional resources (Stockman, Boulton, & Robinson, 2008).

A study by Hammond, Mitchell, and Johnson (2009) surveyed 235 communication disorders graduate program directors from across the United States. The directors were asked to rate their perceptions of how their programs prepared students to work with clients from culturally-linguistically diverse backgrounds. One hundred and thirteen surveys from 36 states were returned and analyzed. On a 1-7 scale (1 *as not prepared* and 7 *as extremely prepared*), the median response from program directors was 5. The majority of the program directors (59.4%) reported multicultural issues were addressed through integration of the topic into other program courses. With regard to the topics students studied relating to multicultural issues in graduate programs, 89.4% indicated that students had course work in assessment of culturally-linguistically diverse clients. Nearly 87% (86.7%) indicated students had course work in bilingualism or multilingualism. Students had studied cultural differences in beliefs about communication in 83.2% of the programs. Approximately 79% (78.8%) indicated students had studied social dialects, and 75.2% had studied second language acquisition. A small percentage (3.5%) denied knowing what topics relating to diversity were studied by students enrolled in their graduate programs.

Rosen and Weiss (2007) surveyed 65 SLPs working in the school districts of Clarke County in Las Vegas, Nevada. Only one ELL student was on each SLP's caseload. Of the 65 SLPs, 21 reported receiving academic training from practicum experience or academic course work. Sixty-three percent reported they had received training from local or district level in-services or state and national conferences.

Kritikos (2003) surveyed SLPs considered monolingual (M; $N=365$), SLPs who had learned a second language through academic study (AS; $N=185$), and SLPs who had

learned a second language through cultural experience (CE; $N=261$). Kritikos examined their beliefs about the language assessment of bilingual/ bicultural individuals.

Participants from the three groups reported that 64% received training in identifying difference versus disorder, 47% reported pre-service training in communication patterns, and 44% reported pre-service training in a second language. Thirty-six percent reported pre-service training in differential assessment, 32% in assessment tools, 22% in laws concerning assessment, and 20% in working with interpreters. Eighty-five percent of the total SLPs surveyed indicated that it was “important” or “very important” to have more pre-service academic course work related to assessing bilingual clients. Eighty-four percent of the total SLPs surveyed reported that it was “important” or “very important” to have more practicum experience with bilingual clients. Kritikos (2003) reported 85% of the M SLPs, 75% of the AS SLPs, and 72% of the CE SLPs responded they were “not competent” or “somewhat competent” even with the aid of an interpreter to assess an individual’s language development when the client did not speak a language the SLP understood. Ninety-three percent of M SLPs, 92% of AS SLPs, and 96% of CE SLPs felt that most SLPs were “not competent” or “somewhat competent” even with the aid of an interpreter to assess an individual’s language development when the client did not speak a language the SLP understood.

Perceived Confidence and Competence

Kamhi (1995) conducted a study involving 12 graduate clinicians and 46 practicing clinicians who had an average of seven years of experience. Kamhi (1995) found that clinicians valued qualities like rapport, confidence, and interest as more significant than technical factors such as diagnosis and treatment. Rosen and Weiss

(2007) examined perceptions of 65 SLPs with regard to their skill levels for providing speech and language services to ELL students. Results indicated that 18.5% felt their skill level was proficient while 81.5% responded that their skill level was not proficient enough to provide adequate services to ELL students.

Hammer, Detwiler, Detwiler, Blood, and Qualls (2004) surveyed SLPs to determine the amount of training and confidence SLPs have when serving Spanish-English bilingual students. Two-hundred and thirteen SLPs from 41 different states responded to the survey. The sample was divided into three groups: non-diverse rural, non-diverse urban, and diverse urban areas. A third (33%) of the total sample reported having no academic course work dealing with multicultural or multilingual issues as undergraduate or graduate students. Approximately a quarter (18-25%) of participants received information about these issues in one or more courses. SLPs reported a lack of confidence in assessing Spanish-English bilingual students who primarily spoke Spanish and whose parents did not speak English.

Roseberry-McKibbin, Brice, and O'Halon (2005) surveyed SLPs with regard to service delivery to ELL students in public school settings. The researchers examined the relationship between the backgrounds of the participants and the perceived problems they encountered working with ELL students. Demographic variables examined included the region of the United States employed, the university pre-service course work obtained relating to serving ELL students, years of working experience, and caseload percentage of ELL students. Nine perceived problems were reported by respondents. They included (a) lack of appropriate assessment materials, (b) inability to speak the language of the ELL student, (c) lack of knowledge about the student's culture, (d) lack of knowledge of

second language acquisition, (e) lack of knowledge about bilingualism, (f) lack of professionals who speak the student's language, (g) distinguishing between a language difference and a language disorder, (h) lack of interpreters who speak the student's language, and (i) lack of knowledge of developmental norms in the student's first language. The researchers compared data from this study to a similar study conducted by the same researchers in 1994 in which 1,736 respondents were included representing all 50 states. Roseberry-McKibbin, Brice, and O'Halon found that the respondents in the 2005 survey had better preparation to serve ELL students than the participants surveyed in 1994. Overall, SLPs who had obtained more university coursework and had more ELL students on their caseloads perceived fewer problems serving ELL students than SLPs who did not have the preparation or experience. It was noted that school-based SLPs who had not taken an entire course on bilingualism had more challenges working with linguistically diverse students than those SLPs who had taken an entire course on bilingualism. Roseberry-McKibbin and colleagues (2005) found that SLPs who had more course work serving ELL students also had more ELL students on their caseloads. The researchers concluded that since these SLPs had more coursework, they were likely more aware of communication disorders in ELL students than SLPs that did not have this academic background. The researchers reported the amount of content and course work concerning service to diverse clients varied depending on the university's program requirements. It was recommended that communication disorders programs across the United States examine the amount of course work they required for serving ELLs to help better prepare future SLPs for providing services to this population.

Purpose

The purpose of this study was to compare the amount of multicultural pre-service training and continuing education Kentucky SLPs have received to the amount received by the SLPs surveyed in the larger studies by Hammer, Detwiler, Detwiler, Blood, and Qualls (2004) and Roseberry-McKibbin, Brice, and O’Hanlon (2005). The research questions for the study were:

1. How would the amount of multicultural pre-service training reported by Kentucky SLPs serving Spanish-English bilingual students compare to the amount of pre-service training reported in previous studies (Hammer, Detwiler, Detwiler, Blood, & Qualls, 2004; Roseberry-McKibbin, Brice, & O’Halon, 2005)?
2. What were the areas of multicultural pre-service training in which SLPs felt they needed more competence?
3. How did the confidence level of Kentucky SLPs for serving Spanish-English bilingual students compare to the SLPs surveyed in previous studies (Hammer, Detwiler, Detwiler, Blood, & Qualls, 2004; Roseberry-McKibbin, Brice, and O’Halon, 2005)?
4. Would the amount of multicultural pre-service training correlate with the confidence levels of SLPs in Kentucky serving Spanish-English bilingual students?

CHAPTER 3

METHODOLOGY

This chapter will describe the participants, procedures, and data analyses comprising the methodology. The study compared the amount of multicultural pre-service training and continuing education Kentucky speech-language pathologists (SLPs) have received to the amount received by the SLPs surveyed in the larger studies by Hammer et al. (2004) and Roseberry-McKibbin et al. (2005). Data collected will be used to inform university CD programs, state, and local school districts regarding future training and continuing education for multicultural issues. The study was approved through the Eastern Kentucky University Institutional Review Board.

Inclusion criteria for participants in this study were (a) speech-language pathologists (SLPs) with their master's degree, (b) state licensure, (c) Kentucky school certification, (d) the American Speech-Language-Hearing Association (ASHA) Certificate of Clinical Competence (CCC-SLP), and (e) current employment by a Kentucky school system. A list that included the number of SLPs who met these criteria and the counties in which they were employed was generated from an Excel spreadsheet sent from the Kentucky Department of Education. There were 1092 SLPs who met inclusion criteria. Ninety SLPs were randomly selected to participate in this study. The counties where the SLPs were employed were classified based on the percentage of Hispanic/Latino students compared to the total students in the county and also the region of state where the county was located. The counties were classified as: East/low percentage, East/medium percentage, Central/low percentage, Central/medium percentage, Central/high percentage, West/low percentage, West/medium percentage, and

West/high percentage. The criteria for a low percentage of Hispanic/Latino students was 0-2%, medium was 2-4%, and high percentage was >4% of the total student population in Kentucky. By using a stratified random sample with proportional allocation, the number of SLPs to be surveyed from each region was determined. There were 18 SLPs selected in the East/low percentage category, 2 SLPs selected in the East/medium percentage category, 11 SLPs selected in the Central/low percentage category, 18 SLPs selected in the Central/medium percentage category, 17 SLPs selected in the Central/high percentage category, 12 SLPs selected in the West/low percentage category, 6 SLPs selected in the West/medium percentage category, and 6 SLPs selected in the West/high percentage category. An East/ high percentage category was not included because there were a lack of SLPs who met the criteria. The SLPs from these county categories were randomly selected from a list. This list was generated through contact information provided by directors of special education (DOSE), school websites, and other SLPs that worked in the county.

A survey was developed to investigate Kentucky SLPs' education and confidence in providing services to Hispanic/Latino children in public schools. Data were collected using an electronic survey format using software from SurveyMonkey.com. The survey contained questions concerning consent, certification, the SLPs' demographics and caseload, the topics and amount of pre-service training they obtained, topics of interest, the types of continuing education SLPs received, and their confidence levels when providing services to Spanish-English bilingual families and their children.

Of the 13 questions asked, two questions determined eligibility to participate in the survey, three were fill-in-the-blank, three used Likert-type scales, one was multiple choice with one answer, and four were multiple choice with multiple answers (See Appendix A for a complete list of questions).

The cover letter, containing the link from the survey, was sent via email by the primary investigator (PI) either directly to the survey participants or first to the DOSE or senior SLP in the county, who then forwarded the email on to the survey participants (See Appendix B). In some counties, the DOSE or senior SLP decided that it would breach confidentiality for the PI to email the survey directly to the participants (See Appendix C). All participants were informed in the cover letter of the voluntary and confidential nature of the research study. Information regarding the refusal and withdrawal from the study was also provided. Consent was obtained in the first question of the survey.

The software from SurveyMonkey.com removed all identifying information from the survey when it was returned. However, in SurveyMonkey, there were different collectors for the eight groups of interest. This allowed the PI to know which respondents were in which geographic region and the proportion of Hispanic/Latino population they were serving. If the selected SLPs filled out a survey and sent the PI an email stating they had responded, the participants were placed in a drawing for a free \$25 gift card. Data were received on a password-protected computer. The emails were deleted after a hard copy of the email was printed. The hard copy of the email was kept in a locked filing cabinet in the faculty adviser's office.

Of the 90 possible respondents, 48 SLPs returned the survey. Initially 28 participants returned the survey. Due to low response rates, after three weeks a second

email was sent with the survey attached. Twenty additional participants responded to the survey after the second email request. Two of the participants started the survey, but did not finish, due to the lack ¹of Hispanic/Latino students on their caseload. These participants emailed the PI to inform of their incompletions. The PI requested they continue to complete the survey even though they currently lacked Hispanic/Latino students on their caseloads. Surveys were returned in each of the eight collectors; (a) 7 surveys were returned in the East/low percentage collector, (b) 1 survey was returned in the East/medium percentage collector, (c) 5 surveys were returned in the Central/low percentage collector, (d) 11 surveys were returned in the Central/medium percentage collector, (e) 10 surveys were returned in the Central/high percentage collector, (f) 7 surveys were returned in the West/low percentage collector, (g) 3 surveys were returned in the West/medium percentage collector, and (h) 2 surveys were returned in the West/high percentage collector (Table 3.1) .

Data were returned to the PI from SurveyMonkey.com and imported into an Excel spreadsheet. A statistician from the EKV Mathematics and Statistics Department assisted in analyzing the data using Minitab 16.1.0 software. Descriptive and inferential statistical analyses were used to analyze the results of Kentucky participants and compare Kentucky participants to the overall results of participants surveyed in the larger studies by Hammer et al. (2004) and Roseberry-McKibbin et al. (2005).

¹ For a complete list of tables see Appendix D.

CHAPTER 4

RESULTS

This section presents the analyses of the results from participant responses. Information was collected concerning the competence and confidence of Kentucky public school SLPs working with Spanish-English bilingual students. Survey questions contained items regarding pre-service training, frequent problems in service delivery, skill confidence, in-services, and workshops.

Participant Data

Participants were female, $N=46$, and fully certified SLPs. Approximately a third (36.96%) had 11-20 years of experience (Table 4.1). Participants reported 21-64 total students on their caseloads with a range of 0-11 of the total being identified as Hispanic/Latino students.

Questionnaire Responses

Pre-service training with regard to multicultural issues was denied by 23.91% of participants. Nearly half of participants (41.30%) reported “one” to “several lectures” in one course. Approximately 22% (21.74%) reported “many lectures in many courses,” and 6.52% reported having “one course on multicultural issues.” A small percentage (2.17%) had taken “more than one course on multicultural issues.” Approximately 4% (4.35%) of the participants were considered “other or unable to recall.”

In order to make direct comparisons between the participants in this study and the participants in the study by Hammer, Detwiler, Detwiler, Blood, and Qualls (2004), overall percentages were computed (Table 4.2). Overall mean percentages were weighted by the number of participants in non-diverse rural, non-diverse urban regions, and

diverse-urban regions. A chi-square test for homogeneity indicated that proportions from this survey were significantly different from proportions given in the Hammer and colleagues survey for at least one of the answer options ($\chi^2=23.4$; $p=0.000$). Two-proportion z tests were used to determine which types of training had significant differences in the proportion of SLPs for the two studies. With 95% confidence, it was shown that the percentage of Kentucky SLPs with pre-service training being provided through “one to several lectures in one course” were at least 5% higher and at most 36% higher than the percentage found in the study by Hammer and colleagues ($p=0.002$). The remaining answer options relating to the amounts of pre-service training found between this study and the study by Hammer and colleagues did not have significantly different percentages. A chi-square test for homogeneity to compare the category proportions for pre-service training between the current study and the study by Roseberry-McKibbin, Brice, and O’Halon (2005) was not statistically significant at the 5% significant level ($\chi^2=4.98$; $p=0.083$).

Participants were asked to indicate which of the cultural topics were covered in undergraduate or graduate courses in speech-language pathology (Table 4.3). Approximately 41% (41.30%) of participants indicated “studying customs and beliefs of other cultures.” Around 13% (13.04%) studied “religions of diverse culture groups.” Nearly 74% (73.91%) responded they learned about “communication styles of diverse cultures.” Around 32% (32.61%) reported that “cultural views of education” were covered in undergraduate or graduate courses. “Cultural views of disabilities and illness” were studied by 36.70% of participants. Only 4.35% of the participants studied “medical practices of diverse culture groups” in pre-service training.

When asked to select the different service delivery (technical) topics covered in undergraduate or graduate courses in speech-language pathology, 78.26% reported learning about defining “differences versus disorders,” and 41.30% had covered “bilingualism.” Nearly half (47.83%) studied “code switching.” During pre-service training, 36.96% studied “normal processes of second language acquisition” and “approaches to assessing bilingual children;” 34.78% reported they were instructed in “strategies for working with multicultural families.” Roughly 39% (39.13%) indicated instruction on “use of standardized tests with bilingual children,” while only 15.22% reported learning “dynamic assessment” in undergraduate and graduate courses. Around 13% (13.04%) indicated they learned how to “work with interpreters” during pre-service training.

The percentage of cultural and service delivery topics selected by participants in this study was compared to the percentage found in the study by Hammer and colleagues (Table 4.4). The percentage of Kentucky SLPs with pre-service training covering “communication styles of diverse cultures” (73.91%) was significantly higher than the 24.30% found by Hammer and colleagues (95% CI [0.5, 0.36], $p < 0.001$). Additionally, it was determined that the percentage of SLPs in the study by Hammer and colleagues who had studied “religions of diverse culture groups” (33.03%) was significantly higher than the 13.04% percent in the current study ($p = 0.008$). No other significant differences between the percentages of cultural and technical competencies covered during pre-service training were found (Tables 4.3 and 4.4).

In this study, the average number of cultural and service delivery competencies covered during undergraduate or graduate courses in speech-language pathology was

analyzed. In the study by Hammer et al. (2004), participants indicated studying an average of 4.47 total cultural and technical competencies compared to a mean of 5.46 reported in the current study. When data were analyzed using two-sample *t*-tests, there was no significant difference ($p=0.128$) between the mean of cultural and technical competencies in this study and the study by Hammer and colleagues (Table 4.5).

“Very frequent” or “frequent” problems resulting from a lack of appropriate, less biased assessment materials were reported by 53.85% of respondents. A larger percentage (66.67%) responded “very frequent” or “frequent” problems when the language of the student being assessed was not known by the SLP. Not being familiar with the culture of the students being assessed caused “very frequent” or “frequent” challenges for 35% of participants. Lack of knowledge about “the nature of second language acquisition” was reported to cause “very frequent” or “frequent” challenges for 25.64% of participants. The lack of knowledge about the “phenomenon of bilingualism” was reported as a “very frequent” or “frequent” problem by 27.50% of participants. A large percentage (61.54%) of the participants reported “very frequent” or “frequent” challenges from the “lack of availability of professionals who can speak the students’ languages.” “Difficulty distinguishing a language difference from a language disorder” caused “very frequent” or “frequent” problems for 28.21% of participants. This corresponds with the data identifying the approximately 78% who reported training in this area. Forty percent of SLPs reported that “the lack of interpreters who speak the necessary languages to provide services” caused “very frequent” or “frequent” problems. “The lack of knowledge of developmental norms in the students’ primary languages” caused “very frequent” or “frequent” problems for around 60% of SLPs (Table 4.6).

Participants were asked how confident they feel when assessing and working with bilingual children and their families. They were asked to rate their confidence on a scale from 1 (*not confident*) to 5 (*very confident*). When asked to report confidence levels for assessing bilingual children whose primary language is Spanish, the mean response was 2.33. The mean response was 3.83 when asked to indicate confidence levels for assessing bilingual children whose primary language is English. A mean response of 3.0 suggested that participants felt “somewhat confident” working with bilingual parents, but “somewhat unconfident” ($M=2.10$) working with parents who do not speak English. When asked how confident participants felt when working with interpreters, the mean response was 3.36.

Confidence responses in this study were compared to the responses from participants in the study by Hammer and colleagues (2004) using two-sample *t*-tests. No significant differences between the perceived confidence levels when assessing bilingual children whose primary language is Spanish ($p=0.421$) or when assessing bilingual children whose primary language is English ($p=0.352$) were found. However, SLPs in this study had significantly less confidence working with bilingual parents ($p=0.003$), working with parents who do not speak any English ($p=0.003$), and working with interpreters ($p=0.041$) (Table 4.7). Spearman’s rank correlation coefficient was used to determine if the amount of multicultural pre-service training correlated with the confidence levels of the participants (Table 4.8). There was insufficient evidence to conclude that any of the confidence levels correlated with the amount of pre-service training the participants had obtained.

Less than half (39.13%) of participants reported reading book chapters or articles focusing on multicultural/bilingual issues in the past year. Only 4.35% of the participants had attended conferences that focused solely on multicultural/bilingual issues or had attended sessions at national/international conferences in the past year. A majority 56.52% had attended workshops offered by the district, state conferences, or local conferences in the past year (Table 4.9).

Table 4.10 presents data on training topics reported by participants. Participants were asked what topics were covered during in-services or workshops attended. About one-third (34.78%) had topics examining “language disorders versus language differences.” Smaller percentages of participants had attended sessions about “how to utilize an interpreter” (17.39%) and “laws involved in the assessment and treatment of bilingual clients” (13.04%). Topics in which the participants were “extremely interested” or “quite interested” in receiving continuing education training were training paraprofessionals to serve ELL students (64.29%) and the effects of bilingualism on language learning (56.1%).

CHAPTER 5

DISCUSSION

The current study examined the pre-service training and perceived confidence of Kentucky speech-language pathologists (SLPs) working with Spanish-English bilingual students in public schools. This chapter includes a discussion of the results compared to studies by Hammer, Detwiler, Detwiler, Blood, and Qualls (2004) and Roseberry-McKibbin, Brice, and O'Hanlon (2005). Strengths, limitations, and implications for further research are presented following the discussion.

Review and Discussion of Results

SLPs employed by public schools in Kentucky were selected using a stratified random sample with proportional allocations. SLPs responded to a questionnaire that examined their competence and confidence serving Spanish-English bilingual students. Questionnaire items were selected from previous research studies by Hammer et al. (2004) and Roseberry-McKibbin et al. (2005). Responses to the questionnaire were used to answer four research questions.

Pre-service Training

The first research question investigated how the amount of multicultural pre-service training reported by Kentucky SLPs serving Spanish-English bilingual students compared to the amount of pre-service training reported in previous studies (Hammer et al., 2004; Roseberry-McKibbin, et al., 2005). There was a significant difference compared to the percentage found in the study by Hammer and colleagues (2004).

However, no significant differences were found in the amount of pre-service training in this study compared to the study by Roseberry-McKibbin et al. (2005).

It appears that the majority of CD programs in Kentucky are making an effort to meet ASHA recommendations through providing “one to several lectures in one course” on multicultural issues. These findings correlate with Hammond, Mitchell, and Johnson (2009) and Stockman, Boulton, and Robinson (2008) who found a majority of CD program directors reported multicultural issues were addressed through integration of the topic into other program courses. Roseberry-McKibbin et al. (2005) noted that school-based SLPs, who had not taken a full course on multicultural issues, reported more challenges working with linguistically diverse students compared to those SLPs who had taken a full course on multicultural issues. Stockman et al. (2008) found that when communication disorders faculty infuses multicultural/multilingual instruction into existing courses, it is probable that very little time is dedicated for this instruction. In the current study, it was found that a small percentage of SLPs (9.09%) had an entire course on multicultural issues during pre-service training. Similar to the national study, this finding would suggest that Kentucky SLPs serving ELL students have received dispersed instruction relating to serving ELL students and perceive themselves as less competent to serve this population.

Competency

The second research question examined the areas of multicultural pre-service training in which participants identified a need for more competence. It was encouraging to note that the percentage of Kentucky SLPs with pre-service training covering

“communication styles of diverse cultures” was significantly higher than the 24.30% found by Hammer and colleagues (2004). A service delivery topic learned by most participants in the Hammer et al. (2004) study and the current study during pre-service training was recognition of “differences versus disorders.” The smallest percentage of participants in both studies reported having pre-service training with regard to collaborating with interpreters. Working with interpreters is a critical component of the assessment process for ELL service provision. Students qualify for speech-language pathology services if they have a language disorder where there are comprehension and/or production impairments in both of the student’s spoken languages (Sietel & Gracia, 2009). Idea 2006 Part B states, “Assessment and other evaluation materials are to be provided in the child’s native language or other mode of communication unless it is clearly not feasible to do so” (as cited in ASHA, 2006, p.1). If the language is unknown by the SLP, the interpreter assists in the assessment process to determine if the child has a language difference or a language disorder. There were few reported bilingual SLPs working in Kentucky at the time of the study. If services are provided as mandated, most Kentucky SLPs are largely dependent on interpreter participation to accurately identify ELL students. Though they have received pre-service training with regard to acknowledging a difference versus disorder in ELL students, their ability to apply that knowledge would be limited without an interpreter. Data continue to support that education for SLPs should include how to effectively work with interpreters to determine whether or not Spanish-English bilingual students receive speech-language services.

No significant difference was found between the current study and the Hammer et al. (2004) study with regard to the total cultural and service delivery competencies studied. Hammer et al. (2004) commented that SLPs had received training on less than half of the topics listed on the questionnaire. These topics represented critical knowledge SLPs need for assessing and treating English language learners with communication disorders. If less than half of the competencies are being studied, SLPs' knowledge base for serving Hispanic/Latino students is lacking. Data suggest this outcome to be consistent for participants in this study.

The most frequent problems experienced while serving ELL students reportedly were “not knowing the language of the child being assessed” (66.7%), “lack of ability of other professionals to speak the language” (61.54%), and “lack of knowledge of developmental norms in the students' primary languages” (60.0%). Kohert et al. (2003), Kritikos (2003), and Roseberry-McKibbin et al. (2005) found participants that received more pre-service training seemed to view less knowledge of developmental norms in the students' primary languages as less of a problem. They suspected that participants with less pre-service training depended on more traditional methods of assessment, such as comparing the student's performance against a developmental norm in English. Similar conclusions can be made about the current study. If the majority of SLPs in this study identified “less knowledge of developmental norms in the students' primary languages” as a problem, they may have limited knowledge of creative non-standardized assessments that informally assess bilingual students' language. Authentic assessments can give more information about the ELL students' language skills preventing arbitrary assignment of norms standardized on children whose primary language is not the same as that of ELL

students (Roseberry McKibbin et al., 2005). Results suggest participants attempt to apply the same assessments and normative markers to ELL students as first language English speakers.

Perceived Confidence

The third question examined the confidence level of participants for serving Spanish-English bilingual students compared to the SLPs surveyed in previous studies (Hammer, Detwiler, Detwiler, Blood, & Qualls, 2004). Participants generally felt “somewhat unconfident” assessing bilingual children whose primary language was Spanish as well as working with parents who did not speak English. No significant differences were found between the perceived confidence levels of SLPs in the study by Hammer et al. (2004) and the current study, when assessing bilingual children whose primary language was Spanish or bilingual children whose primary language was English. Hammer et al. (2004) concluded that it was not surprising that the respondents indicated a lack of confidence assessing and serving bilingual students, whose primary language was Spanish and their Spanish-speaking parents, due to the amount of pre-service training the participants had obtained. The most frequent challenge reported in this study was “not knowing the language of the student being assessed.” However, according to Roseberry-McKibbin et al. (2005), “having more university coursework made respondents less likely to view various situations (e.g., don’t speak the language assessed) as problems” (p.56). Kritikos (2003) found that SLPs with more cultural experiences had more bilingual/bicultural students on their caseloads, even when the SLP could not speak the language of the student.

It would seem that if SLPs had more pre-service training and experience working with ELL students, they would feel more confident about serving students and parents that did not speak their language.

Participants in this study had significantly less confidence working with bilingual parents, working with parents who did not speak any English, and working with interpreters as compared to the participants in the study by Hammer et al. (2004). Surprisingly, when asked what continuing education topics the participants would be “extremely interested” or “quite interested” in participating, the smallest percentage of respondents indicated use of interpreters. Interpreters bridge the communication gap and allow the SLP to assess children in other languages and converse with parents, who do not speak English. Since SLPs lacked confidence working with interpreters, it is unexpected that SLPs are the least interested in gaining more information on learning how to successfully work with interpreters. Bridging the gap between reported lack of confidence in working with interpreters and practice would be perplexing given these data. Perhaps, the data are indicators that other topics ranked with more importance when participants were selecting from a list.

Correlation between Pre-service Training and Confidence

The fourth research question examined the correlation between multi-cultural pre-service training and the confidence levels reported by SLPs in Kentucky serving Spanish-English bilingual students. Interestingly, there was insufficient evidence to conclude that any of the confidence levels correlated with the amount of pre-service training participants had obtained. One would think that a participant with more pre-service

training would be more confident than a participant with less pre-service training. However, Roseberry-McKibbin et al. (2005) found that participants with more pre-service training were more aware of the difficulty of implementing less-biased assessment with ELL students. Adequate pre-service training also includes experience with clients from culturally-linguistically diverse backgrounds. Kritikos (2003) noted that SLPs with more cultural experience were more likely to mention a concern about overreferring students for services and the need for bilingual SLPs. Participants with more pre-service training may be more aware of the difficulties that come with providing appropriate services to ELL students and report lower confidence levels than those with less pre-service training whose awareness of the complexities in service provision is lacking.

Strengths and Limitations

A stratified random sample with proportional allocations was used to increase the likelihood of a representative sample. SLPs were randomly targeted to answer the survey depending on the percentage of Hispanic/Latino students on their caseloads and region in which they were employed. Of the 90 SLPs selected, 51.11% participated in the study. This exceeds the common return rate of 10-20%. Caution is needed in generalizing the results. Results suggest the need for further research with a more representative sample.

In some counties, the Director of Special Education (DOSE) and senior SLP considered direct contact from the PI to be a breach in confidentiality. In other counties, the SLPs' contact information was available online or given to the PI by the DOSE. Because the emails were returned to the DOSE prior to the PI, participants may have

been reluctant to report areas of incompetence. Clarification that the DOSE would not have access to participant responses was needed. Different methods for contacting participants could have compromised the reliability results.

Two participants started, but did not finish the survey due to not having any Hispanic/Latino students on their caseloads. These participants emailed the PI to inform of their incompletions. The PI requested they continue the survey despite the lack of Hispanic/Latino students on their caseloads. It is possible that other SLPs who did not complete the survey may have done so without informing the PI. Lack of clarity with regard to participation criteria may have negatively influenced the response rate. The wording related to participation should have clarified that SLPs met inclusion criteria even if they did not currently serve Hispanic/Latino students.

Implications

Further research is needed to examine the relationship between pre-service training and confidence levels. An additional component of that research must be consideration of types of clinical learning experiences that were provided in addition to academics. Replication of this study with a more representative size is recommended to clarify perceptions of confidence and competence. Factors influencing reported confidence levels could be examined using qualitative methods. Additional research could study the relationship between assessment practices of SLPs serving Spanish-English bilingual students and the amount of multicultural pre-service training they had obtained. Research examining how multicultural issues are specifically incorporated into university program curriculums could be warranted. This might include whether or not

SLPs received more pre-service training by reviewing multicultural issues through several lectures, throughout several courses, or through one course. Researchers could examine how multicultural issues are covered within other courses, if a whole course is not devoted to this topic.

Another implication for future research is whether more pre-service training and experience working with ELL students encourages SLPs to be interested in working with this population. Kritikos (2003) suggested that SLPs with cultural experiences may feel more comfortable and be more positive in regard to working with ELL students. It was interesting to note that the majority of participants (64.29%) were “extremely interested” or “quite interested” in learning how to train paraprofessionals to serve ELL students. If more pre-service training and positive experiences were provided, it is possible that SLPs may be more interested in working with this population themselves, instead of being interested in training paraprofessionals to serve them. Additional research could investigate what roles paraprofessionals have when serving ELL students.

Conclusions

Results from this study suggest that Kentucky CD programs are making an effort to meet ASHA’s recommendations. However, more pre-service training and continuing education are warranted when serving Spanish-English bilingual students. Most of the participants had received pre-service training on less than half the cultural and service delivery topics listed on the survey. For the majority of participants, those topics were incorporated into multiple lectures embedded in one course whose main focus was not multicultural issues. It is clear that most participants had a lack of confidence serving this

population and may lack interest in working with ELL students. Limited training and experience appear to influence their perceptions. The Hispanic/Latino population in Kentucky has rapidly increased over the past ten years and continues to grow.

Assessment and service delivery challenges concerning ELL students are less likely to be resolved unless additional multicultural education and experiences are provided.

Additional research is warranted to determine the manner in which pre-service training should be provided and what competencies should be addressed.

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APPENDIX A:
Questionnaire

1. Consent

1. I consent to taking this survey.

Yes

2.

1. Are you a fully certified SLP?

- Yes
- No

3.

*** 1. How many total years have you been working as a speech-language pathologist?**

*** 2. How many students are on your caseload?**

*** 3. What is the number of Hispanic/Latino students on your caseload?**

4.

1. What kind of pre-service training did you receive on multicultural issues? Select one answer that best describes your pre-service training.

- None
- One or two lectures
- Several lectures in one course
- Many lectures included throughout many courses
- One course devoted to these issues
- More than one course that focused on these issues

2. Indicate which of the following cultural topics were covered in undergraduate or graduate courses in speech-language pathology. Select as many options as apply.

- Customs/beliefs of other cultures
- Religions of diverse cultural groups
- Communication styles of diverse cultures
- Cultural views of education
- Cultural views of disabilities/illness
- Medical practices of diverse cultural groups

3. Indicate which of the following service delivery topics were covered in undergraduate or graduate courses in speech-language pathology. Select as many options as apply.

- Defining differences verses disorders
- Bilingualism
- Code Switching
- Normal processes of second language acquisition
- Approaches to assessing bilingual children
- Strategies of working with multicultural families
- Use of standardized tests with bilingual children
- Dynamic Assessment
- How to work with interpreters

5.

1. What specific problems do you encounter most frequently in serving and treating English Language Learners (ELL)/ English as a Second Language (ESL) students with communication disorders? Please indicate according to the following format:

	1= Very Frequent	2=Frequent	3=Somewhat Frequent	4=Somewhat Infrequent	5=Infrequent
a. Lack of appropriate less biased assessment instruments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Don't speak the language of the student being assessed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Lack of knowledge about the culture of the student being assessed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Lack of knowledge about the nature of second language acquisition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Lack of knowledge about the phenomenon of bilingualism.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Lack of availability of other professionals who speak the students' languages.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Difficulty distinguishing a language difference from a language disorder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Lack of interpreters who speak the necessary languages to provide services.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Lack of knowledge of developmental norms in students' primary languages.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6.

1. How confident do you feel when:

	1=Not Confident	2=Somewhat Unconfident	3=Somewhat Confident	4=Confident,	5. Very Confident
a. Assessing bilingual children whose primary language is Spanish?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Assessing bilingual children whose primary language is English?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Working with bilingual parents?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Working with parents who do not speak any English?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Working with interpreters?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Which of the following activities that focused on multicultural issues were you involved with in the past year? Select as many options as apply.

- Read book chapters/articles focusing on multicultural/bilingual issues
- Attended workshops offered by your district
- Attended conferences that focused solely on multicultural/bilingual issues
- Attended sessions at national/international conferences
- State conferences
- Local conferences

3. Have you attended any inservices or workshops that addressed the following? Select as many options as apply.

- Second language acquisition
- Communication patterns in cultures where a language other than English is spoken
- Differential assessment of bilingual vs. monolingual individuals
- Assessment tools for bilingual individuals
- Language disorder vs. language difference
- Laws involved in the assessment and treatment of bilingual clients
- How to utilize a language interpreter

4. Given the opportunity to participate in continuing education training that addresses services to ELL/ ESL students with communication disorders, please rate the following items in terms of your interest according to the following format.

	1=Extremely Interested	2=Quite Interested	3=Moderately Interested	4=Mildly Interested	5=Not Interested at all
a. First/ primary language developmental norms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Cultural practices of diverse groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Code switching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Effects of bilingualism on language learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Second language acquisition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Appropriate assessment procedures and materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Treatment/ therapy procedure materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Training paraprofessionals to serve ELL/ESL students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Use of interpreters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. ELL/ ESL English proficiency testing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Accent reduction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Less biased methods and materials for distinguishing language differences from language disorders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Thank you

Thank you for completing my survey! Please send an email stating that you completed this survey to leah_cooley5@eku.edu in order to be entered to win a \$25 gift card of your choice. By sending this email, you will also be removed from the follow-up list and will not be contacted again. Your response email will not be connected in any way to your responses on the survey.

APPENDIX B:
Email Cover Letter to SLPs

Dear SLP,

My name is Leah Cooley. I am a graduate student at Eastern Kentucky University in the communication disorders program. For my thesis, I am trying to find out if SLPs who work with Hispanic students feel competence and confidence when serving them in the schools. When I asked my classmates if they felt comfortable serving clients from multicultural backgrounds, many said they did not. I chose Hispanic students because they are the second largest minority group in Kentucky schools. It is important for me to have a representative sample for my thesis.

You and 99 other SLPs have been randomly chosen out of 1,092 possible participants from different regions of the state.

The online questionnaire will take approximately **10 minutes**. At completion, you will become eligible to win **a \$25 gift card**.

Your participation is greatly appreciated and necessary for our study to be successful.

You may find our questionnaire at the following web address (click or copy/paste into your web browser):<http://www.surveymonkey.com/s/Y7NKNTL>

You will have until 11/18/11 to complete the survey and become eligible for the gift card. Your participation is voluntary and you may choose to stop the survey at any time but unless you fully complete the survey you will not be eligible for the prize.

This study has been reviewed and approved by ECU's Institutional Review Board. If you have any additional questions regarding this study, please do not hesitate to contact me or my graduate thesis advisor, Dr. Stephanie Adamovich at 622-2115 or stephanie.adamovich@eku.edu.

Sincerely,

Leah Cooley
leah_cooley5@eku.edu
leah_cooley5@madison.kyschools.us

APPENDIX C:
Email Cover Letter to DOSE or Senior SLP

Dear special education director or head SLP,

I have recently revised my methodology for the randomization of the selection of the SLPs for my thesis. Now, according to the methodology, the special education director or the head SLP is to randomly select SLPs from their county to complete the survey. Could you please randomly select **4** SLPs to send the email cover letter with the attached survey? It would be very helpful if you could send me a reply email when you send the survey to the randomly selected SLPs. I really appreciate your help. I am trying to make the data I receive as valid and representative as possible to help meet the needs of the Hispanic students in Kentucky. This is why I am asking you to only randomly select a certain number of SLPs from your county.

Thank you so much for your time,

Leah Cooley

Dear school based SLP,

My name is Leah Cooley. I am a graduate student at Eastern Kentucky University in the communication disorders program. For my thesis, I am trying to find out if SLPs who work with Hispanic students feel competence and confidence when serving them in the schools. When I asked my classmates if they felt comfortable serving clients from multicultural backgrounds, many said they did not. I chose Hispanic students because they are the second largest minority group in Kentucky schools. It is important for me to have a representative sample for my thesis.

You and 99 other SLPs have been randomly chosen out of 1,092 possible participants from different regions of the state. The online questionnaire will take approximately **10 minutes**. At completion, you will become eligible to win **a \$25 gift card**.

Your participation is greatly appreciated and necessary for our study to be successful. You may find our questionnaire at the following web address (click or copy/paste into your web browser):<http://www.surveymonkey.com/s/MPTPWFH>

You will have until 11/18/11 to complete the survey and become eligible for the gift card. Your participation is voluntary and you may choose to stop the survey at any time but unless you fully complete the survey you will not be eligible for the prize.

This study has been reviewed and approved by ECU's Institutional Review Board. If you have any additional questions regarding this study, please do not hesitate to contact me or my graduate thesis advisor, Dr. Stephanie Adamovich at 622-2115 or stephanie.adamovich@ecu.edu.

Sincerely,

Leah Cooley

leah_cooley5@ecu.edu

leah_cooley5@madison.kyschools.us

APPENDIX D:
Tables

Table 3.1
Participants (N=46)

Participant Category	<i>n</i>	Percentage
East/low percentage	7	15.21
East/medium percentage	1	2.17
Central/low percentage	5	10.87
Central/medium percentage	11	23.91
Central/high percentage	10	21.73
West/ low percentage	7	15.21
West/medium percentage	3	6.52
West/high percentage	2	4.34

Table 4.1
Demographic Information (N=46)

Demographic Category	<i>n</i>	Percentage
<u>Years of Practice in Speech Pathology (N=46)</u>		
0-5	9	19.57
6-10	8	17.39
11-20	17	36.96
21-30	9	19.57
>30	2	4.35

Table 4.2
Amount of Pre-service Training Concerning Multicultural Issues-Hammer et al. (2004)

Pre-service Training	Cooley Percentage N=46	Hammer Percentage N=182,	P-value
No training	23.91	35.25	0.139
One to several lectures in one course	41.30	20.02	0.002
Many lectures in many courses	21.74	11.04	0.058
One course on multicultural issues	6.52	9.02	0.847*
More than one course	2.17	10.04	0.190*
Other/ unable to recall	4.35	14.60	0.107*

*+4 confidence intervals were used for these comparisons due to small sample size

Table 4.3
Amount of Pre-service Training Concerning Multicultural Issues- Roseberry-McKibbin et al. (2005)

Pre-service Training	Cooley N=44	Roseberry-McKibbin N=1736
No Course	25.0	38.36
Part of a Course	65.91	48.91
Whole Course	9.09	12.73

Table 4.4
Cultural Topics Covered in Undergraduate or Graduate Courses

Culture Topics	Cooley Percentage N=46	Hammer Percentage N=182	P-Value
Studying customs and beliefs of other culture	41.30	33.76	0.323
Religions of diverse culture groups	13.04	33.03	0.008
Communication styles of diverse cultures	73.91	24.30	<0.0001
Cultural views of education	32.61	23.22	0.182
Cultural views of disabilities and illnesses	36.70	30.28	0.380
Medical Practices of Diverse Culture Groups	4.35	11.25	0.173

Table 4.5
Service Delivery Topics Covered in Undergraduate or Graduate Courses

Service Delivery Topics	Cooley Percentage N=46	Hammer Percentage N=182	P-Value
Defining differences versus disorders	78.26	65.48	0.094
Bilingualism	41.30	30.79	0.174
Code switching	47.83	34.21	0.084
Normal processes of second language acquisition	36.96	35.14	0.821
Approaches to assessing bilingual children	36.96	26.62	0.156
Strategies of working with multicultural families	34.78	28.60	0.411
Use of standardized tests with bilingual children	39.13	25.57	0.074
Dynamic assessment	15.22	23.09	0.246
How to work with interpreters	13.04	16.25	0.568

Table 4.6
Number of Topics Covered in Undergraduate or Graduate Courses

Numbers of Topics	Cooley <i>N=46, M (SD)</i>	Hammer <i>N=182, M (SD)</i>	<i>P-value</i>
All topics (15 possible)	5.46 (3.74)	4.47 (4.48)	0.128
Cultural Competencies	2.02 (1.63)	2.18 (2.43)	0.591
Technical Competencies	3.44 (2.58)	2.85 (2.72)	0.179

Table 4.7
“Very Frequent” (1) or “Frequent” (2) Problems Serving Spanish-English Bilingual Students
 (N=46)

Problems	<i>n</i>	Percent indicating 1 or 2
a. Lack of appropriate less biased assessment materials	21	53.85
b. Not knowing the language of the student being assessed	26	66.67
c. Not knowing the culture of the students being assessed	14	35.0
d. Lack of knowledge about the nature second language acquisition	10	25.64
e. Lack of knowledge about the phenomenon of bilingualism	11	27.50
f. Lack of ability of other professionals who speak the students’ languages	24	61.54
g. Difficulty distinguishing a language difference from a language disorder	11	28.21
h. Lack of interpreters who speak the necessary languages to provide services	16	40.0
i. The lack of knowledge of developmental norms in the students’ primary languages	24	60.0

Table 4.8
Confidence Serving Spanish-English Students

Numbers of Topics	Cooley <i>N</i> =46, <i>M</i> (<i>SD</i>)	Hammer <i>N</i> =182, <i>M</i> (<i>SD</i>)	<i>P</i> -value
Assessing bilingual children whose primary language is Spanish	2.33 (1.22)	2.51 (1.33)	.421
Assessing bilingual children whose primary language is English	3.83 (1.01)	4.0 (0.96)	.352
Working with bilingual parents	3.0 (1.04)	3.54 (1.10)	.003
Working with parents who do not speak English.	2.10 (1.06)	2.69 (1.39)	.003
Working with interpreters	3.36 (1.14)	3.76 (1.01)	.041

Table 4.9
Correlation of Pre-service Training with Confidence Levels of Participants (*N*=46)

Numbers of Topics	Spearman's rho
Assessing bilingual children whose primary language is Spanish	0.04
Assessing bilingual children whose primary language is English	-0.25
Working with bilingual parents	0.12
Working with parents who do not speak English.	0.13
Working with interpreters	-0.19

Table 4.10
Types of Continuing Education Received (N=46)

Topics	<i>n</i>	Percentage
a. Read books chapters/articles focusing on multicultural issues	18	39.13
b. Attended workshops offered by district	6	13.04
c. Attended conferences that focused solely on multicultural issues/bilingual issues	2	4.35
d. Attended sessions local conferences	5	10.87
e. Attended sessions at state conferences	15	32.61
f. National/ international conferences	2	4.35

Table 4.11
Topics Covered at In-services and Workshops (N=46)

Topics	<i>n</i>	Percentage
Second language acquisition	11	23.91
Communication patterns in cultures where a language other than English is spoken.	9	19.57
Differential assessment of bilingual versus monolingual individuals	13	28.26
Assessment tools for bilingual individuals	12	26.09
Language disorder versus language difference	16	34.78
Laws involved in the assessment and treatment of bilingual clients	6	13.04
How to utilize a language interpreter	8	17.39

Table 4.12
“Extremely Interesting” (1) or “Quite Interesting” (2) Topics for Future Continuing Education
 (N=46)

Topics	<i>n</i>	Percentage indicating 1 or 2
First/primary language developmental norms	17	40.48
Cultural practices of diverse groups	12	28.57
Code switching	13	31.71
Effects of bilingualism on language learning	23	56.10
Second language acquisition	20	47.62
Appropriate assessment procedures and materials	23	54.76
Treatment/therapy procedures and materials	23	54.76
Training paraprofessionals to serve ELL students	27	64.29
Use of interpreters	9	21.43
ESL/English proficiency testing	11	26.19
Accent reduction	17	40.48
Less biased methods and materials for distinguishing language differences from language disorders	20	50.0