Communication Barriers between Speech-Language Pathologists and Interpreters that Impact Service Delivery

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Abstract

Communication Barriers between Speech-Language Pathologists and Interpreters that Influence Service Delivery

Allison Mettey

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This study identifies communication barriers between speech-language pathologists and interpreters in a speech therapy setting that influence service delivery to Spanish-speaking clients and their families in the state of Kentucky. Current research is summarized regarding best practices between speech-language pathologists and interpreters. Objectives of the study were to identify how often Kentucky SLPs utilize interpreters, what is current practice during collaboration, what barriers are faced by interpreters when interpreting within a speech therapy setting, and what the overall level of satisfaction is of SLPs and interpreters regarding the collaboration experience, is future specialized training necessary, and if so which topics should be included in that training. Results of the study indicate that best practices are not being followed inconsistently and that SLPs inconsistently train interpreters on how to administer an assessment. Therefore, there is a high incidence of interpreters invalidating assessments due to lack of training from SLPs. As a result, Spanish-speaking clients are not being properly identified for the
services that could be of benefit to them. The majority of SLPs and interpreters surveyed indicated that future specialized training is necessary to enhance service delivery to all culturally and linguistically diverse clients. Seven potential topics were identified for future training and areas of future research are discussed.

Keywords and phrases: speech-language pathologists; SLPs, interpreters; collaboration; assessment; Spanish-speaking; speech therapy; barriers; undergraduate research; thesis
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Introduction

The United States is becoming an ever-increasing linguistically diverse nation (Langdon, 2002b, p. 30). According to the last Census, over 55 million people speak a language other than English at home in the United States, and nearly 35 million speak Spanish at home (Shin and Kominski, 2010, p. 2). This creates a challenge for speech-language pathologists to meet the needs of speakers of languages whose first language is not English in the delivery of services. Nationally, only 6,282 (4%) of speech-language pathologists consider themselves bilingual, and only 3,790 (2.5%) consider themselves to be bilingual in the English and Spanish languages (ASHA, 2012a). In Kentucky, 84,000 people speak English less than very well; of those 86,000, 40,000 are Hispanic (Pew Hispanic Center, 2011). The American Speech-Language-Hearing Association (ASHA) mandates that speech therapy services be provided in the primary language of the client (IDEA, 2006). As of August 2012, 14 speech-language pathologists in Kentucky identify themselves as bilingual; of those 14, nine of those SLPs are Spanish service providers (ASHA, 2012a). Since there are clearly not enough bilingual Spanish/English speech-
language pathologists in the state of Kentucky to provide services to Spanish-speakers who qualify for services, another professional must be brought in. To accommodate for this language barrier, “working with an interpreter is necessary to evaluate a client’s primary language in the absence of a bilingual clinician who speaks the client’s language” (Langdon, 2002b). While the American Speech-Language-Hearing Association (ASHA) recommends when an interpreter should be used and has set forth a procedure for how this collaboration should be done, there is currently little documentation of what is actually practiced when an interpreter is utilized and the overall satisfaction level of both speech-language pathologists and interpreters. Therefore, the main objectives of this study were to document current practices in the state of Kentucky and to evaluate satisfaction levels in an attempt to identify topics for future training to enhance service delivery to culturally and linguistically diverse clients.

**Literature Review**

When assessing culturally and linguistically diverse clients, to ensure that the data gathered provides a holistic and accurate representation of the client’s communication abilities, the 2006 Individuals and Disabilities Education Act (IDEA, 2006) mandates that assessment materials should be both culturally relevant and sensitive to the client. Moreover, any form of assessment or evaluation should be conducted in the child’s native language (IDEA, 2006). Shipley and McAfee (2009) also recommend that assessment be both “dynamic and flexible,” meaning that if standardized or formal assessment is used, it is supplemented by some form of informal assessment, such as a language sample, narrative assessment, or observation (Shipley & McAfee, 2009, p. 32). In addition,
Shipley and McAfee (2009) also recommend that speech language pathologists collaborate with an interpreter throughout the diagnostic process, especially to aid in collecting case history information from the client’s family or caregivers (Shipley & McAfee, 2009, p. 32).

The American Speech-Language-Hearing Association (ASHA) recommends that an interpreter be used when the speech-language pathologist cannot competently deliver services in the client’s native language, when the client speaks a language other than the vernacular of the area, or when there is not another professional available who is proficient enough in the client’s native language to competently deliver services (ASHA, 1985). When selecting an interpreter, Shipley & McAfee (2009) recommend selecting an interpreter who is proficient in both the primary language of the client as well as Standard American English, knowledgeable of or has received training regarding the cultural norms of both parties, and if possible “has received training and knowledge of issues relevant to speech-language pathology” (p. 34).

The use of family members, friends, or children in place of a qualified interpreter should be avoided (NCIHC 2005, p. 6), for several reasons. One reason not to use a child in place of a qualified interpreter is because it may go against cultural norms (Shipley & McAfee, 2009, p. 34), or they may feel obligated to omit or change parts of the message to prevent embarrassment of an elder or because they are uncomfortable interpreting what is said (Wirthlin Worldwide, 2001). Moreover, family members or friends of the client do not follow a set of standards nor have the training or experience of a qualified medical interpreter (Wirthlin Worldwide, 2001), which could decrease the reliability of the assessment results. During an assessment, a family member or friend may interpret or
report correct or desired responses because they want the client to do well. However, this is problematic, as it does not allow the data to truly reflect a client’s speech and language capabilities.

Langdon and Cheng (2002) recommend that speech-language pathologists should follow a three-step process when working with interpreters to allow for the collaboration process to go as smoothly as possible. This is known as the BID process, which consists of a Briefing phase, an Interaction phase, and a Debriefing phase. The Briefing phase occurs when the SLP and the interpreter meet prior to the session in which the interpreting will occur (Langdon and Cheng, 2002). The Briefing phase has three objectives: first, the SLP will go over the session’s scheduled activities, discuss the expectations of the interpreter, and will identify any culturally sensitive issues that could come up (Langdon and Cheng, 2002). Next, the SLP will explain any professional terminology or technical jargon that may be unfamiliar to the interpreter and will be covered in the session, allowing for the interpreter to adequately prepare to interpret unfamiliar words or concepts (Langdon and Cheng, 2002). Lastly, when using an interpreter for a diagnostic, the most crucial part of the Briefing phase is when the SLP instructs the interpreter on how to administer any assessment tests that will be used, since the interpreter will be the one administering the diagnostic (Langdon and Cheng, 2002). It is preferable that the interpreter has an opportunity to practice giving an assessment, so that the SLP can explain directions as well as instruct the interpreter on which invalidating behaviors to avoid that could prompt or cue the client towards the correct response (Langdon and Cheng, 2002).
While it is critical that the speech-language pathologist train an interpreter on how to administer any form of assessment, it is especially imperative that an interpreter is trained by the SLP on how to administer any norm-referenced or criterion-referenced tests, as they must be administered exactly as instructed per the testing manual (Shipley & McAfee, 2009, p. 9). The American Speech-Language-Hearing Association (ASHA) states that “test scores would be invalid for testing a client who is not reflected in the normative group for the test's standardization sample, even if the test were administered as instructed” (ASHA, 2012b). Moreover, providing any additional cueing (such as body language, directionality of eye gaze, or gestures) or translation of English version of assessments also renders the results invalid (ASHA, 2012b). These are all reasons why it is critical that SLPs take the time to properly train interpreters on how to administer assessments so that the results are as valid and reliable as possible, and the SLP can gain an accurate representation of a client’s speech and language abilities.

The Interaction phase occurs when the SLP, interpreter, and client are all present (Langdon and Cheng, 2002). The SLP should introduce themselves and the client to the interpreter, and briefly explain what will occur in the session and describe how the interpreter will be involved (Langdon and Cheng, 2002). The SLP should speak directly to the client instead of the interpreter, and make normal eye contact with the client (Langdon and Cheng, 2002). The SLPs is to speak in short sentences with a speech rate that allows the interpreter time to process what is said; frequent pauses in speaking also give the interpreter time to convey the message to the client (Langdon and Cheng, 2002).

The final Debriefing phase of the BID process occurs between the SLP and the interpreter just like in the briefing phase, only after the session has ended (Langdon and
Cheng, 2002). The Debriefing phase should not be skipped, as it provides an opportunity for both the SLP and the interpreter to discuss any obstacles or challenges that arose, so that they can be remediated for future sessions (Langdon and Cheng, 2002). The Debriefing phase also allows for the opportunity for the SLP to provide any instruction or training that can improve and fine tune the interpreter’s skills for future diagnostic sessions (Langdon and Cheng, 2002).

Just as speech-language pathologists have a proposed protocol (the BID process) that they are expected to follow when working with interpreters, interpreters have a standardized interpreting protocol of their own to follow that somewhat mirrors the BID process, only their terminology is “pre-session,” “interaction” and “post-session” (California Healthcare Interpreters Association, 2002). This allows for interpreters to have a set of guidelines to follow before, during, and after each session (California Healthcare Interpreters Association, 2002). During the pre-session, the interpreter should introduce themselves, the languages they will be interpreting, and explain that everything said will be kept confidential. The interpreter will interpret everything that is said by all individuals present in the session exactly as they say it. It is crucial at this time that the interpreter instructs both the client and the healthcare provider to speak directly to each other, and to speak slowly and clearly with pauses to allow for adequate time for the message to be interpreted (California Healthcare Interpreters Association, 2002 pg. 35). The interpreter is to inform both the client and the provider that they will intervene at any time if clarification is necessary. At this time, prior to the session, is when the interpreter is to check if the provider needs to brief the interpreter on anything regarding the session
(such as how a diagnostic is to be administered) and to answer any questions either professional may have (California Healthcare Interpreters Association, 2002 pg. 35).

During the interaction, the interpreter interprets using the first person, as this is the standard accepted within the field of interpreting; however, it is acceptable and encouraged to switch to interpreting in the third person if the first person creates confusion or is not culturally appropriate (California Healthcare Interpreters Association, 2002 pg. 36). It is also crucial that the interpreter does not involve personal opinions and remains impartial. According to the California Healthcare Interpreters Association, interpreters are to “refrain from interjecting personal opinions, beliefs or biases into the patient/provider exchange” (California Healthcare Interpreters Association, 2002 pg. 26).

The final phase of the interpreting sequence is the post-session. It occurs between the interpreter and speech-language pathologist after the session has ended. The two objectives of the post-session on the interpreter’s end are to “inquire about any questions or concerns the parties may have for each other, and to ensure that the encounter has indeed ended” and to “debrief providers or the interpreter’s supervisor, when appropriate, about concerns of interpreters or providers arising from the session” (California Healthcare Interpreters Association, 2002, p. 37). This phase is critical and should not be skipped, as it allows both the interpreter and SLP to discuss any issues that arose as well as what went well so that successful collaboration can occur for future sessions.

There are three considerations that need to be made to standard interpreting protocol when interpreting within a speech therapy setting that do not usually occur in other interpreting settings. It was mentioned earlier that interpreting in first person is the standard among professional interpreters (Long and Roy, 2012, p. 65). The first
consideration is that interpreting in first person can create confusion for a young client. For example, if during an assessment the speech-language pathologist instructs the child to “roll the ball to me,” and the interpreter interprets “roll the ball to me” in the first person per standard interpreting protocol, a young child may be confused and roll the ball to the interpreter. Therefore, it would be appropriate and almost necessary in this situation to interpret in third person, such as “roll the ball to her.”

The second consideration to be made is in regards to the importance of words as opposed to the importance of meaning when interpreting. Interpreters who have received Cross Cultural Health Care Program’s Bridging The Gap 40 hour Medical Interpreter Training are instructed that interpreters do no interpret individual words of a message, but rather the overall meaning of the message (Long and Roy, 2012, p. 64). However, due to the fact that assessment of speech and language of a client is a metalinguistic process, meaning that the actual words and language used are the focus of the assessment, the actual words spoken by a client are of the utmost importance. For example, a client saying “him did it” as opposed to “he did it” would be noteworthy and should not be overlooked or ignored by the interpreter, as the speech-language pathologist would need to know this information when scoring the assessment.

There are four roles of the medical interpreter (California Healthcare Interpreters Association, 2002). The first role is that of the Conduit. As a conduit, the interpreter’s role is to convert the message from one party to the other without omissions, additions, or changing the meaning in any way (Long and Roy, p. 64). The second role is that of the Clarifier. If the interpreter suspects confusion or misunderstanding from either party, the interpreter will intervene to check for understanding/clarify any misunderstood
information (California Healthcare Interpreters Association, 2002, p. 42). The third role is that of Cultural Broker. Here, the interpreter goes beyond word clarification to include a range of actions that typically relate to an interpreter’s ultimate purpose of facilitating communication between parties not sharing a common culture. This role is necessary when the interpreter must inform either the patient or the provider of a certain cultural difference that is relevant to whatever is going on in the session. For example, the interpreter would intervene and say, “The interpreter would like to clarify that in the patient’s culture, this is a common belief, or you would not ask a child this because of this reason.” Long and Roy caution that the interpreter must “make no assumptions” regarding the client’s culture (p. 213). The fourth role of the interpreter is that of the Advocate (California Healthcare Interpreters Association, 2002, p. 42). Individuals with limited English proficiency may have difficulty advocating for themselves to the extent that English-speaking patients do. Culturally and linguistically diverse patients may not be familiar with U.S. healthcare system services available and their healthcare rights. As a result of this cultural and linguistic barrier, interpreters are often the only individuals in a position to recognize a problem and advocate on behalf of the patient as a result of having the awareness of both cultures of the patient and provider.

The third consideration that needs to be made to interpreting protocol is in regards to assisting a speech-language pathologist in the analysis of client responses from a diagnostic. Shipley and McAfee (2009) instruct SLPs to “consult with an interpreter. An interpreter can provide insight into a client’s speech, language, and cognitive behaviors in comparison to what may be considered normal in the culture” (p. 32). This analysis of a client’s speech that the interpreter assists with is an extension of the Cultural Broker role,
as the interpreter helps the SLP to understand certain aspects of a client’s culture or language relevant to the assessment. However, interpreters cannot ethically participate in such an analysis. The Bridging The Gap Medical Interpreter Training warns interpreters to “make no assumptions,” especially since culture and language can vary from person to person (Long and Roy, p. 213). The National Council on Interpreting in Health Care (2002) advises interpreters to refrain from “projecting personal biases or beliefs” when interpreting (p. 6). Ethically, medical interpreters are to remain impartial when interpreting (California Healthcare Interpreters Association, 2002 and National Council on Interpreting in Health Care, 2005).

Part of the reason why this study was conducted is because there is limited documented research of collaboration between speech-language pathologists and interpreters within the United States. While best practices of service delivery to culturally and linguistically diverse populations is an emergent area in the field of speech-language pathology (Langdon, 2002a, p. 30), part of the reason for this lack of research on collaboration between SLPs and interpreters is due to the fact that there is currently no national certification for medical interpreters within the United States (Avery, 2007). Speech-language pathologists in the United States are certified with a Certificate of Clinical Competence (CCC) through the American Speech and Hearing Association (ASHA) and must have at least a master’s degree in communication sciences and disorders (ASHA, 2013). However, right now all that distinguishes a qualified medical interpreter from an interpreter is the fact that they follow a set of ethics and standards (NCIHC, 2005). There are several sets of standards that exist that all touch on the same topics, though it is the sole responsibility of the interpreter to abide by these ethical
standards, as there is no national board in place to monitor such practices. While there is discussion of the establishment of national certification for medical interpreters, no such certification exists at the time that this study was conducted (Avery, 2007).

Though current research and documentation is limited, there are two main studies that have focused on collaboration between speech-language pathologists and interpreters. One study is a masters research thesis done by Elizabeth Clark out of Australia (Clark 1998). This study indicated that 100% of SLPs and interpreters interviewed indicated some level of frustration when working with one another (Clark 1998, p. 3). One of the findings of this study focused on the use of interpreters during the analysis of a client’s speech. The chief complaint of SLPs when working with interpreters was that the interpreters often were not able to adequately assist in the analysis of a client’s speech because they were not able to tell the SLP the type of information that they needed to analyze the responses from an assessment (Clark, 1998, p.8). Similarly, the main complaint of interpreters interviewed was that providing an analysis of a client’s speech was the same as offering their opinion, something that the interpreting code of ethics urges strongly against (National Council on Interpreting in Health Care, 2005, p. 6). “Interpreters seem to take the term more literally, focusing on connotations of ‘opinion’ within the broader spectrum of ‘analysis’…and most interpreters rightly refuse to enter into such dangerous ethical areas” (Clark, 2008, p. 8).

The only study that seems to have occurred in the United States was done by Henriette Langdon out of San Jose State University in California. This study surveyed speech-language pathologists, interpreters, and clients. There were several main findings of this study. Survey responses indicated that speech-language pathologists followed BID
process inconsistently, between 40%-80% of the time (Langdon, 2002a, p. 28). While best practices are being followed, they are followed inconsistently; clinicians with more experience seemed to follow best practices more consistently than younger clinicians with less experience (Langdon, 2002a, p. 29). The main complaint from both interpreters and SLPs surveyed was that more time is needed for the interpreting process to enable the flow of the session to occur smoothly (Langdon, 2002a, p. 25). SLPs reported that more time is needed before and after sessions to meet with the interpreter, while interpreters reported that they needed more time during the session itself to accurately interpret everything that is said (Langdon, 2002a, p. 25). Langdon concluded that “continuing education opportunities are lacking for all groups” (2002a, p. 29).

The common theme among many research articles existing on the topic of speech-language pathologists and interpreters working together is that specialized training is necessary for both professional parties. Shipley & McAfee (2009) propose “clinicians and the interpreters may benefit from special training to develop the skills necessary to work effectively together. The integrity of the assessment may depend upon it, so that false diagnoses are not made (p. 35). Langdon (2002) also states that “although clinicians have been working with interpreters for quite some time, neither party has been consistently prepared to work with the other.” Clark (1998) argues that “training of both professions (interpreting and speech pathology) is one means of improving the outcomes of interpreted speech pathology assessments” and “future education programs [should] address the complexity of roles and expectations more directly” (Clark, 1998, p. 9). However, no such training currently exists.
Purpose

The purpose of this study was to identify communication barriers between speech-language pathologists and interpreters during a diagnostic that influence service delivery when serving Spanish-speaking clients and their families in the state of Kentucky. There are recommendations and an advised protocol that the American Speech-Language-Hearing Association (ASHA) has set forth for SLPs to abide by when involving an interpreter, and there is a very rigid protocol that medical interpreters are expected to follow when interpreting across all settings. However, there is little documentation of current practices of this within the United States. In order to figure out what can be improved, there must first be knowledge of what is currently being done in the field in this area in the state of Kentucky. Therefore, this study was guided by five main research questions:

1. Are Kentucky speech-language pathologists involving interpreters during a diagnostic when appropriate when serving Spanish-speaking clients and their families?
2. What is the current practice during a diagnostic on both the SLP end and on the interpreter end in that collaboration process?
3. What barriers do interpreters encounter when interpreting in a speech therapy setting, and what is the overall level of satisfaction of SLPs and interpreters about their collaboration experience during a diagnostic?
4. What can be done to improve the collaboration process of SLPs and interpreters during a diagnostic?
5. Is future training necessary, and if so, which topics would be beneficial to cover?

**Methodology**

Data was collected through two online surveys using KwikSurveys.com. One survey was sent to speech-language pathologists through the KSHA (Kentucky Speech and Hearing Association) email database, which has about approximately 1800 members and is composed of speech-language pathologists, audiologists, and students. The second survey was sent out to Kentucky interpreters through the SEMIA (South Eastern Medical Interpreters Association) listserv, which has 179 members. Both surveys mirrored each other and contained similar questions, but were directed toward their respective profession to which they were sent. Both surveys received approval from Eastern Kentucky University’s Institutional Review Board.

A cover letter that listed specific inclusion criteria was included in the email that was sent out to the participants containing the survey link. The inclusion criteria for the speech-language pathologists to participate in the survey were that they had to be an ASHA-certified speech-language pathologist (CCC-SLP) and they must have had experience involving an interpreter when working with a Spanish-speaking client and/or their family. The inclusion criterion for interpreters was that they must have had experience interpreting in the English and Spanish languages within a speech therapy setting.
Results

This section presents an analysis of the data collected from both the survey completed by Kentucky speech language pathologists and the survey completed by Kentucky interpreters. Only the most significant findings from the data are discussed in this section. For a complete listing of data collected, see tables listed in Appendixes. Data was collected regarding demographic information of the respondents, scheduling and time constraints placed on sessions, how diagnostics were administered through the use of an interpreter, how BID (Briefing-Interaction-Debriefing) procedure and interpreting protocol was followed within a diagnostic, how diagnostic results were analyzed with the help of an interpreter, ethics of interpreting within a speech therapy setting, overall level of satisfaction of SLPs and interpreters working with each other, and topics for future training. All survey questions were based off of the five main research questions discussed in the purpose of the study. Participants were not forced to answer every question on the surveys; therefore, N varies slightly from question to question.

Participants consisted of ASHA-certified speech-language pathologists in the state of Kentucky, N=67 (Table 1.1). Approximately 84% (83.6%) indicated a school as their primary place of employment. Approximately 61% (60.6%) of SLPs surveyed have had Spanish-speakers as part of their caseload for less than five years.

Of the interpreters surveyed, N=19 (Table 1.2). All but three of the interpreters received Bridging The Gap training due to the fact that at completion of the training the option is given to be placed on the SEMIA listserv through which the survey was sent. Ten participants had received some form of cultural sensitivity training, 14 had another form of training or certification that was not listed, and one participant had no form of
training or certification. Nearly half of interpreters surveyed (47.4%) have interpreted for less than five years, and approximately three fourths of them (73.7%) have less than five years of experience interpreting for diagnostic and/or speech therapy sessions. All interpreters surveyed indicated being at least “very proficient” in the English and Spanish languages, and claimed to be native speakers of at least one of these languages. Interpreters surveyed indicated interpreting for all ages of Spanish-speaking clients from birth to adult, and approximately one fourth of participants have each interpreted for clients 3-6 years (23.7%), elementary age (26.3%), and adult clients (26.3%).

The first research question of the study asked if Kentucky speech-language pathologists are involving interpreters during a diagnostic when appropriate when serving Spanish-speaking clients and their families. Approximately 35% (34.8%) of SLPs surveyed indicated that they rarely (25% of the time) use an interpreter with a Spanish-speaking client or family (Table 1.1). Approximately a quarter of SLPs (27.3%) said that they always (100% of the time) use an interpreter with a Spanish-speaking client or family, and approximately 8% (7.6%) of SLPs indicated that they have never involved an interpreter during a diagnostic.

The three parts of the diagnostic process include an optional screening, a parent or client interview to collect case history and background information, and the actual assessment itself (Shipley & McAfee, 2009). When working with a Spanish-speaking client or family, approximately 40% of SLPs (40.3%) bring in an interpreter for a parent or client interview, approximately 37% of SLPs (37.3%) use an interpreter for the actual diagnostic itself, and approximately 22% of SLPs (22.4%) use an interpreter for a screening (Table 1.1). Approximately 72% (71.8%) of SLPs reported using an interpreter
in a school setting, though SLPs used interpreters across all therapy settings. SLPs reported involving an interpreter with Spanish-speaking clients of all ages from birth to adult, with the majority of SLPs surveyed working in the schools. Approximately 36% (35.5%) used an interpreter with clients between the ages of three and six, and 40% used an interpreter with Spanish-speaking clients at the elementary level. Approximately 41% (41.4%) of interpreters surveyed reported interpreting for a diagnostic session in a medical setting, while only approximately 14% (13.8%) interpreted in a school.

The objective of the second research question of the study was to find out what the current practice is during a diagnostic on both the part of the speech-language pathologist and the interpreter when working with Spanish-speaking clients in the state of Kentucky. The majority of the questions from both the SLP survey and the interpreter survey revolved around answering all aspects of this question. This included how often SLPs and interpreters abided by their respective profession’s protocol, current practice behaviors of SLPs when working with interpreters during a diagnostic, current practice of how interpreters administer a diagnostic, potentially invalidating behaviors by interpreters as observed by SLPs during an assessment, and how SLPs utilize interpreters in the analysis of diagnostic results.

The survey results indicated that Kentucky SLPs follow ASHA’s proposed BID process inconsistently. During the briefing with an interpreter before a diagnostic, approximately 30% (29.5%) of SLPs rarely (25% of the time) go over with the interpreter what to expect during a session (Table 2.2). Approximately 21% (21.3) of SLPs always (100% of the time) go over what to expect during a session. Of SLPs surveyed, 40% always (100% of the time) explain how to administer a formal or informal assessment
test, while approximately 17% (16.7%) of SLPs never do this. During the debriefing with the interpreter after the diagnostic, approximately 59% (59.3%) of SLPs discuss with the interpreter how the diagnostic session went at least 75% of the time. Approximately 54% (54.3%) of SLPs answer questions pertaining to the outcome of the diagnostic session at least 75% of the time. Nearly three-fourths of SLPs (74.1%) discuss with the interpreter what can be improved to allow for better diagnostic sessions in the future less than 50% of the time, with approximately 16% (15.5%) never having this discussion.

During an interpreter’s pre-session with the speech-language pathologist to explain how the interpreting process will occur, approximately 41% (41.2%) of interpreters always do this (100% of the time) (Table 2.6). Two deviations from standard interpreting protocol during the interaction phase where noted by interpreters surveyed (Table 2.7). Over half of interpreters surveyed (53.3%) indicated that they did not find that the meaning of what was said to be more important than what words were actually said when interpreting in a diagnostic session. In addition, approximately 63% (62.5%) of interpreters surveyed found that interpreting in the first person (per standard interpreting protocol) had created confusion for a client, and approximately 69% (68.8%) reported switching to interpreting in third person to avoid confusion for the client. During the post-session with the SLP after the diagnostic has occurred, 47% of interpreters rarely (less than 25% of the time) discuss how the diagnostic session went (Table 2.6). Nearly a quarter (23.5%) of interpreters always (100% of the time) discuss questions pertaining to the outcome of the diagnostic session, while nearly half (47.1%) of interpreters do this less than 25% of the time. Half of interpreters surveyed (50.0%) discuss with the SLP
what can be improved to allow for better diagnostic sessions in the future less than 25% of the time.

Table 2.3 summarizes the current practice behaviors of speech-language pathologists when working with interpreters during a diagnostic. Approximately 64% (63.6%) of SLPs surveyed reported using family members or family friends of the Spanish-speaking client to interpret during a diagnostic session in the absence of a professional interpreter (Table 2.3). Approximately one third (32.3%) of SLPs surveyed allot additional time when scheduling a diagnostic session that involves an interpreter; the remaining 67.8% of SLPs allot additional time for the use of an interpreter sporadically (less than 75% of diagnostic sessions). When assessing Spanish-speaking clients, approximately 6% (6.1%) of SLPs use only informal assessments, approximately 11% (11.2%) of SLPs use only formal or standardized assessments, approximately 46% (45.9%) of SLPs use both formal and informal assessments, and approximately 37% (36.7%) of SLPs use observation. Half of SLPs surveyed (50.0%) had asked an interpreter to administer an English edition of an assessment test by interpreting it into Spanish.

Table 2.1 summarizes current practice of what is done by interpreters when administering a diagnostic. In regards to amount of training, approximately 35% (35.3%) of interpreters surveyed reported that they have not received adequate instruction from a SLP about how to administer an assessment test (Table 2.1). Less than 42% (41.2%) of interpreters surveyed have administered Spanish editions of formal assessment tests when assessing Spanish-speaking clients, while approximately 59% (58.8%) of interpreters
have been asked to administer an English version of an assessment test by interpreting it to the client in Spanish.

Table 2.4 summarizes the occurrence of interpreter behaviors as observed by SLPs that can potentially invalidate an assessment. Nearly 85% (84.6%) of SLPs reported that interpreters had alluded to the correct response through gestures, such as hand movements or body language (Table 2.4). Approximately 80% (80.4%) of SLPs reported that an interpreter had alluded to the correct response through voice intonation. Over 70% (71.2%) of SLPs reported that an interpreter had alluded to the correct response through eye gaze/directionality, and nearly 80% (79.2%) of SLPs reported that an interpreter had alluded to the correct response through facial expressions or eyebrow movement.

Tables 2.1 and 2.5 summarize how SLPs utilize interpreters in the analysis of diagnostic results. Over half of interpreters surveyed (52.9%) reported that a SLP has asked them for an analysis of a client’s speech or of their elicited responses (Table 2.1). Approximately 65% (64.7%) of interpreters reported that a SLP has asked them for their opinion of a client’s speech based off of their Spanish knowledge (Table 2.1); similarly, approximately 69% (68.5%) of SLPs have asked interpreters to give their opinion on how the client’s speech or language compares to other Spanish-speakers based off of their knowledge of the Spanish language (Table 2.5). Nearly 65% (64.2%) of SLPs have asked an interpreter to compare the client’s responses to other Spanish-speakers or speakers of the client’s dialect, and approximately 64% (63.5%) of SLPs have asked for an interpreter to comment on whether a client’s speech or language is typical in comparison to other speakers of Spanish or of the client’s specific dialect (Table 2.5).
The first objective of the third research question was to identify what barriers interpreters encounter when interpreting in a speech therapy setting. Interpreters were surveyed on five potential barriers as listed in Table 3.1. Approximately 71% (70.6%) of interpreters surveyed reported that a client’s speech had been so unintelligible to the point that they were not able to accurately interpret what was said (Table 3.1). Approximately 57% (57.1%) of interpreters surveyed reported that they find it difficult to interpret the speech of young clients with communication disorders. Approximately 47% (47.1%) of interpreters surveyed had encountered unfamiliar acronyms that presented a challenge when interpreting. Three fourths (75.0%) of interpreters surveyed also reported that they had encountered unfamiliar medical terminology that presented a challenge when interpreting, while approximately 35% (35.3%) of interpreters surveyed reported that they had encountered unfamiliar terminology relating to procedures or techniques specific to the field of speech and language pathology that presented a challenge when interpreting. Table 2.8 summarizes the ethical considerations for interpreters when interpreting within a speech therapy setting; a low percentage of interpreters surveyed ethical dilemmas while interpreting for diagnostics. A quarter of interpreters surveyed (25.0%) indicated that a speech-language pathologist has asked them to do something that they felt was outside of their scope of practice as an interpreter (Table 2.8). Less than 13% (12.5%) of interpreters surveyed felt pressured by a SLP to interpret more than just the meaning of what was said.

The other objective of the third research question was to assess the overall level of satisfaction of speech-language pathologists and interpreters about their collaboration experience during a diagnostic. Approximately 43% (42.9%) of SLPs indicated their
level of satisfaction of working with interpreters as “very good,” and approximately 39% (39.3%) of SLPs said that their level of satisfaction was “satisfactory” (Table 3.2). Approximately 43% (42.9%) of interpreters indicated an “excellent” level of satisfaction of working with SLPs, with no interpreters indicating an “unsatisfactory” or “poor” level of satisfaction. Nearly 30% (29.6%) of SLPs indicated “time constraints” as the most challenging aspect of working with interpreters, followed by “confusion of roles” (25.9%) and “language barrier” (25.9%) (Table 5.1). Nearly 31% (30.8%) of interpreters indicated “lack of cultural sensitivity/knowledge” as the most challenging aspect of working with SLPs, followed by “confusion of roles” at approximately 23% (23.1%).

The fourth research question will be addressed in the Results section. The objective of the final research question was to find out if future training on collaboration between speech-language pathologists and interpreters is necessary, and if so which topics would be beneficial to cover. Approximately 98% (98.2%) of SLPs are in support of future training, with only one respondent not in favor (Table 5.3). All interpreters surveyed (100.0%) indicated that future training is warranted. Approximately 91% (90.9%) of SLPs and approximately 87% (86.7%) of interpreters indicated that training on the administration of formal and informal diagnostic tests is necessary (Table 5.2). Approximately 69% (69.1%) of SLPs and approximately 93% (93.3%) of interpreters agree to training in professional terminology. Approximately 73% (73.3%) of SLPs and 100% of interpreters agree that training in interpreting the speech of clients with communication disorders is necessary. Approximately 70% (69.7%) of SLPs and over half of interpreters (53.3%) agree that collecting case histories should be included in future training. Over three-fourths (76.8%) of SLPs and approximately 87% (86.7%) of
interpreters indicated that conveying test findings to clients and their families should be included in future training. Approximately 79% (78.6%) of SLPs and two-thirds (66.6%) of interpreters agree that disseminating information to clients and their families should be including in future training. Three-fourths (75.0%) of SLPs and over half of interpreters (53.3%) agree that counseling clients and their families should be included in future training.

Discussion

This section discusses the data gathered from the study, strengths, limitations, and areas for future research. To answer the first research question as to whether or not Kentucky SLPs are involving interpreters during a diagnostic when appropriate when serving Spanish-speaking clients and their families, the answer would be that Kentucky speech-language pathologists are using them inconsistently at best. While approximately 27% (27.3%) of SLPs always use interpreters when working with a Spanish-speaking client or family, the remaining 73% are not (Table 1.1). Ideally, 100% of Kentucky SLPs would use interpreters all of the time and across all settings when appropriate, but this is currently not the case.

It is possible that only approximately 22% (22.4%) of SLPs brought in an interpreter for a screening because it is only a brief test that alerts the SLP if a further assessment is necessary (ECLKC, 2003), and may feel that it is less important to use an interpreter for an initial screening if further assessment may or may not be necessary (Table 1.1). A potential area of future research would be to discern the reasons why approximately 63% (62.7%) of Kentucky SLPs opt to administer assessments without the
use of an interpreter, whether it is lack of funding, time, or training on how to collaborate with one (Table 1.1). A possible explanation for why Kentucky SLPs most commonly bring in an interpreter for the parent/client interview aspect of the assessment process approximately 40% of the time (40.3%) may be due to the fact that parents of Spanish-speaking clients may not be fluent in English if they recently immigrated to the United States and did not receive schooling in English, while their child(ren) may not require the use of an interpreter due to English language exposure in school or daycare settings (Chumak-Horbatsch, 2008).

There is a discrepancy in the data in regards to which settings and age ranges of clients that SLPs involve interpreters the most. Approximately 72% (71.8%) of SLPs surveyed reported using interpreters in a school setting, while only approximately 9% (8.5%) used interpreters in a medical setting (Table 1.1). In contrast, approximately 14% (13.8%) of interpreters interpreted for a diagnostic in a school setting, whereas approximately 41% (41.4%) interpreted in a medical setting for a diagnostic (Table 1.2). This can be explained by the fact that schools were the primary place of employment for approximately 84% (83.6%) of SLPs, and that the interpreters surveyed were medical interpreters, meaning that the most common places where they interpret are hospitals, doctors offices, and medical facilities (source?). Moreover, only approximately 4% (3.6%) of SLPs surveyed had used an interpreter with Spanish-speaking clients over the age of 18, while approximately 27% (26.3%) of interpreters had interpreted for a diagnostic involving an adult client. This could be explained by the fact that the clients on a school-based SLP’s caseload are all under the age of 18, but a medical-based SLP may have clients of all ages, including adults.
An area of the demographic data that raises a concern is the fact that one respondent to the interpreter survey indicated that they have interpreted for a diagnostic session for a Spanish-speaking client, but have received no form of training or certification. While there is currently no standard certification for medical interpreters in the United States, ethically, SLPs should be using qualified interpreters with some form of training or certification (ASHA, 1985). Just as speech-language pathologists must receive extensive training to be competent professionals, the profession of interpreting should be no exception.

The second research question asked what is the current practice during a diagnostic on both the speech-language pathologist’s role and on the interpreter’s role in the collaboration process. Results indicate that SLPs inconsistently meet with an interpreter before a session to go over what to expect during a session and how to administer a diagnostic. It is to be noted that if the SLP and interpreter have worked together many times before, then a pre-session may be minimal or may not be necessary. However, the SLP should always instruct the interpreter on how to administer a diagnostic so that the interpreter’s body language, tone of voice, or facial expressions do not cue the client to the desired response, therefore invalidating the assessment (ASHA, 2012b). Results also indicated that only 40% of interpreters surveyed always conducted a pre-session with the SLP (Table 2.6). Again, if the interpreter has interpreted for the SLP numerous times before, then a pre-session may be minimal or may not always be necessary; however, it is critical that the interpreter inform all parties involved on how the interpreting process will occur to avoid confusion and to allow for a smooth flow of communication (Long and Roy, 2012).
As noted in Table 2.7, over half of interpreters surveyed did not find the meaning of what was said to be more important than what words were used. This means that interpreters must also take into consideration word choice and grammatical errors when interpreting a client’s responses to the speech-language pathologist, something that may not be considered as noteworthy in other interpreting settings. However, since the focus is in fact on the words and language used, it is relevant that the aspects of a client’s speech are preserved in the interpretation. Two thirds of interpreters surveyed indicated that they switched to interpreting in third person during a diagnostic to avoid confusion for a client (Table 2.7). This deviation from standard interpreting protocol could be due to the direct interaction nature of assessment in addition to working with a client too young to comprehend that the interpreter’s words are in fact those of the speech-language pathologist.

The results also indicated that post-sessions/debriefing sessions between speech-language pathologists and interpreters occur inconsistently. While frequent collaboration between the same SLP and interpreter is acceptable to forego a pre-session, it is not the case with post-sessions. Post-sessions allow the SLP and interpreter to discuss what worked and what can be improved for future sessions to allow for better service delivery to Hispanic clients and their families. It can only be assumed that the reason why pre-sessions and post-sessions are skipped are due to time constraints, but the closed-response nature of the surveys make it impossible to know if this is the reason or not. This is an area to look into with future research.

The last aspect of the second research question relates to the role of the interpreter in the administration and analysis of assessments. Nearly 60% of interpreters had been
asked by a speech-language pathologist to interpret an English version of a standardized assessment into English (Table 2.1). This is unethical on the part of the SLP, as Shipley and McAfee (2009) state that “it is inappropriate to modify a standardized test by directly translating the assessment tasks” and that images within the assessment may not be familiar to the client’s culture (p. 31). If a Spanish edition is not available of a standardized assessment, then the client should be evaluated using some form of informal assessment, such as language sampling (ASHA, 2012b).

Over two thirds of speech-language pathologists surveyed asked interpreters to comment on, give their opinion of, or compare a client’s speech to other Spanish-speakers. While this is necessary information for the SLP to have knowledge of, it also puts the interpreter in an unethical situation, as it forces them to make assumptions that they cannot ethically make (Long and Roy, p. 213). What this means is that roles of SLPs and interpreters should be included in future training so that SLPs have a better understanding of what interpreters can and cannot do ethically. As a result, SLPs can ask interpreters to provide more accurate descriptions or interpretations of a client’s speech, rather than asking them to make assumptions or give their own personal opinion.

As the results indicate that 60% of SLPs do not always train an interpreter on how to administer a diagnostic, with 17% of SLPs never providing any training on this (Table 2.2), it is no surprise that the majority of SLPs surveyed also indicated that interpreters often invalidated assessments through involuntary cueing (Table 2.4). This demonstrates two things. Primarily, pre-sessions truly are necessary for SLPs to properly train interpreters on what to do as well as what not to do during assessments to prevent invalid results. But in addition, future specialized training could instruct interpreters on what
behaviors to avoid that could cue a client to the correct or desired responses during an assessment. Through this, the accuracy of assessments administered by an interpreter would increase, as would identification of culturally and linguistically diverse clients. All of this would improve overall service delivery to this demographic of clients.

The third research question addresses barriers that are present to interpreters when interpreting in a speech therapy setting that may not be present in other interpreting settings. Approximately 71% (70.6%) of interpreters surveyed reported that a client’s speech had been so unintelligible to the point that they were not able to accurately interpret what was said (Table 3.1). In all other settings, speaking slowly and clearly is a requirement for all parties involved in the interpreting process so that the interpreter can accurately convey all messages said in a session (NCIHC, 2005). However, the reason why many clients, especially children, are referred for a speech evaluation in the first place is because their speech is highly unintelligible and hard to understand by others, or may have expressive language difficulties. SLPs receive extensive training in listening to the speech of clients with low speech intelligibility, and therefore are trained in what to listen for, whereas interpreters traditionally do not receive training in the areas of communication disorders or speech and language development. In contrast, in terms of receptive language, a child may have difficulty understanding what is said by the interpreter not because the interpreter interpreted incorrectly, but because the child or client struggles with comprehension of language in general. Receptive language issues are especially common in English language learners, or individuals who are learning English as a second language if they struggle to acquire two languages at the same time.
The data from the surveys make it very evident that the majority of speech-language pathologists and interpreters surveyed are satisfied with the experience that they have had working with each other, with interpreters reporting a slightly higher level of satisfaction than SLPs (Table 3.2). One reason that SLPs reported a slightly higher level of frustration may be because they are unable to have full control over the assessment process, as they must administer diagnostics through an individual (the interpreter) who has less experience or training doing so (Clark, 1998, p. 5). In addition, SLPs must also analyze the assessment data through collaboration with an interpreter, who traditionally do not have training on typical and atypical speech and language development or analyzing the speech of clients with communication disorders (Clark, 1998, p. 5). Clark (1998) explains that SLPs “must act upon second-hand data, which often does not contain the nuances of direct communication, particularly the subtle hesitations and repairs that can signal possible speech and language disorders” (Clark, 1998, p. 5).

The fourth research question asks what can be done to improve the collaboration process between speech-language pathologists and interpreters during a diagnostic. The simple answer to this question is that best practices need to be followed more consistently. Specifically, pre-sessions and post-sessions need to occur regularly between SLPs and interpreters to allow for training on assessment administration, explanation of the interpreting process, and discussion of how diagnostic sessions can be improved in the future. In addition, education on the professional roles of the speech-language pathologist and the professional roles of the interpreter would be beneficial for both parties so that all individuals involved are on the same page about what can and cannot be done ethically. Since training is necessary on both the SLP end and the interpreter end of
the collaboration process, the best way to implement these changes to enhance service delivery to culturally and linguistically diverse clients would be through a specialized training designed for both SLPs and interpreters, which leads into the fifth and final research question of this study.

The fifth and last research question asks if future training of speech-language pathologists and interpreters is warranted, and if so, which topics would be beneficial to cover in order to improve the administration of diagnostics and as a result provide better service delivery to culturally and linguistically diverse clients. It was almost unanimous amongst all SLPs and interpreters surveyed that future training is necessary. Over half of all respondents agreed to all of the potential training topics listed in Table 5.2. SLPs most strongly agreed that administration of formal and informal diagnostic tests should be covered, as well as topics concerning conveying test findings and other pertinent information to clients and their families (Table 5.2). It can be inferred that the reasoning behind this is that proper administration of diagnostics will yield valid results, while disseminating information and conveying test findings to families helps to build rapport in the therapeutic process.

Interpreters surveyed unanimously agreed that training on interpreting the speech of clients with communication disorders would be helpful. It can be inferred that this is because unintelligible speech makes accurate interpretation a difficult task for interpreters, especially when speaking clearly and slowly is required of all individuals present in a session with an interpreter. The majority of interpreters surveyed also agreed that training on professional terminology pertaining to the field of speech-language pathology would be helpful in the interpreting process, as certain terminology may be
unfamiliar to them as it may not be present in other settings. Interpreters also agreed that training on the administration of diagnostics is necessary, as this is a task unique to the field of speech-language pathology. Interpreters also indicated conveying test findings as a topic to be included in specialized training, most likely because test findings can include technical language unique to diagnostics that interpreters may not have encountered before. However, this can only be inferred due to the closed-response nature of the study.

While all of these topics can be explained to the interpreter during a pre-session with the speech-language pathologist, specialized training in these topics would still be beneficial so that both SLPs and interpreters can be on the same page with all aspects pertaining to the collaboration process. It should be noted that specialized training will not serve as a substitute for pre-sessions and post-sessions, but rather as a supplement and continuing education for everyone involved. As a result of such a training, collaboration between SLPs and interpreters as well as service delivery to culturally and linguistically diverse clients can be improved.

**Limitations**

There were several limitations of the study. To keep the research specific, this study focused only on the use of interpreters during a diagnostic session. While interpreters are crucial throughout the entire therapeutic process when working with nonnative speakers of English, the diagnostic results determine eligibility for services as well as the focus of intervention. The scope of the study was limited to speech-language pathologists and interpreters within the state of Kentucky. Though SLPs are to use
interpreters with speakers of any language other than English, this study focused on Spanish-speakers only.

The other limitations of the study are related to response rates and types of responses. Of the 179 medical interpreters that the survey was sent out to through the SEMIA listserv, 19 completed the survey. Out of those 179 interpreters, approximately 80% are interpreters of the English and Spanish languages. From that 80%, only interpreters who had experience interpreting within a speech therapy setting could respond. SEMIA is an association for medical interpreters who interpret across a variety of settings, including but not limited to hospitals, doctor’s offices, clinics, physical therapy, occupational therapy, and speech therapy. There is currently no organization for interpreters who exclusively interpret for speech therapy. Therefore, this is a realistic response rate due to the fact that the amount of eligible participants from the interpreter survey group was limited to begin with.

One of the research questions of this study was whether or not Kentucky speech-language pathologists are involving interpreters during a diagnostic when appropriate when serving Spanish-speaking clients and their families. The inclusion criteria to participate in the survey made this question impossible to answer with this study, as the speech-language pathologists must have had experience involving an interpreter when working with a Spanish-speaking client and/or their family. If they had not, then they could not participate in the survey, and therefore no data could be collected on what percentage of SLPs are not using interpreters when appropriate. In addition, the survey site utilized did not allow for open response questions. Therefore, a comments section
was not included in the survey; all data collected was gathered from closed response questions.

**Future Research**

As the scope of this study was limited to the state of Kentucky and only to service delivery to Spanish-speaking clients and their families, future research should include a larger sample of both speech-language pathologists and interpreters from across the country and across languages. Future research should also allow for open responses from participants so that reasoning behind current practices and commenting regarding all aspects of the collaboration process can be collected. Future research should look into how interpreters are utilized throughout the entire therapeutic process, including but not limited to scheduling appointments, collecting case histories, initial parent/client interview, assessment, and how interpreters are utilized with various intervention techniques and strategies. Given these findings from this study, the next step is to develop and implement a specialized training for speech-language pathologists and interpreters. It would then be beneficial to conduct pre-surveys and post-surveys of SLPs and interpreters receiving the training to verify what parts of the training were effective and what areas need to be changed to result in better collaboration between both professionals, and therefore improve service delivery to culturally and linguistically diverse clients and their families.
Conclusions

Conclusions of the study demonstrate that Kentucky speech-language pathologists utilize interpreters inconsistently when working with Spanish-speaking clients and their families during a diagnostic. Furthermore, SLPs and interpreters conduct pre-sessions and post-sessions with each other inconsistently, resulting in inadequate instruction to the interpreter on how to administer an assessment and therefore a high incidence of interpreters invalidating assessments through improper administration of tests. As a result of these current practice behaviors, Hispanic clients and their families are not receiving the services that they need due to mislabeling from complications that arise from such assessments. SLPs and interpreters are both generally satisfied about the collaboration experience, though both parties feel that specialized training is necessary and indicated seven topics to be included in future training. Future specialized training would not only improve collaboration between SLPs and interpreters but would also enhance service delivery to culturally and linguistically diverse clients and their families.
List of References


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APPENDIX A: Speech-Language Pathologist Survey

Demographic Information

1. Select your primary place of employment.
   - School
   - Hospital / Medical Setting
   - Private Practice
   - University Clinic
   - Other

2. Approximately how often have you utilized an interpreter when working with a Spanish-speaking client or family?
   - Always (100% of the time)
   - Frequently (75% of the time)
   - Sometimes (50% of the time)
   - Rarely (25% of the time)
   - Never (0% of the time)

3. For which of the following activities do you utilize an interpreter in service delivery? Check all that apply.
   - Screening
   - Diagnostic
   - Parent / Client Interview

4. Select the setting(s) where you have utilized an interpreter:
   - School
   - Hospital / Medical Setting
   - Private Practice
   - University Clinic
   - Other

5. Select the amount of years that you have worked with members of the Spanish-speaking population as part of your caseload.

6.
What is the age range of Spanish-speaking clients with whom you have utilized an interpreter? Select all that apply.
- Birth to 3 years
- 3-6 years
- Elementary
- High School
- Adult (18+ years)

7
How *often* have you relied on family members or family friends of the Spanish-speaking client to interpret during a session in the absence of an interpreter?
- Always (100% of the time)
- Frequently (75% of the time)
- Sometimes (50% of the time)
- Rarely (25% of the time)
- Never (0% of the time)

**Scheduling & Time Constraints**
How often do you allot time *before* a session to train and prepare the interpreter for the following:

8
- what to expect during a session
  - Always (100% of the time)
  - Frequently (75% of the time)
  - Sometimes (50% of the time)
  - Rarely (25% of the time)
  - Never (0% of the time)

9
- explaining how to administer a formal or informal assessment test
  - Always (100% of the time)
  - Frequently (75% of the time)
  - Sometimes (50% of the time)
  - Rarely (25% of the time)
  - Never (0% of the time)
How often do you allot time after the following situations to discuss the following with the interpreter:

10. how the diagnostic session went
   - □ Always (100% of the time)
   - □ Frequently (75% of the time)
   - □ Sometimes (50% of the time)
   - □ Rarely (25% of the time)
   - □ Never (0% of the time)

11. answer questions pertaining to the outcome of the diagnostic session
   - □ Always (100% of the time)
   - □ Frequently (75% of the time)
   - □ Sometimes (50% of the time)
   - □ Rarely (25% of the time)
   - □ Never (0% of the time)

12. what can be improved to allow for better diagnostic sessions in the future
   - □ Always (100% of the time)
   - □ Frequently (75% of the time)
   - □ Sometimes (50% of the time)
   - □ Rarely (25% of the time)
   - □ Never (0% of the time)

13. When working with a Spanish speaking child and/or family, how often do you allot additional time when scheduling a diagnostic session that involves an interpreter (i.e., planning for a longer diagnostic)?
   - □ Always (100% of the time)
   - □ Frequently (75% of the time)
   - □ Sometimes (50% of the time)
   - □ Rarely (25% of the time)
   - □ Never (0% of the time)

Administration of Diagnostic Tests

14. When assessing Spanish-speaking clients through an interpreter, which form(s) of assessment do you tend to utilize? Select all that apply.
In the absence of a Spanish edition of a formal assessment test, have you ever had an interpreter administer an English edition of an assessment test and asked them to interpret it into Spanish?

- Yes
- No

16

In preparation for administering a diagnostic test by an interpreter who is trained by you, for the following questions, select to what extent an interpreter has demonstrated the following behaviors when administering a formal assessment or screening test:

- Alluded to the correct response through **gestures** (e.g., hand movements, body language)
  - Always (100% of the time)
  - Frequently (75% of the time)
  - Sometimes (50% of the time)
  - Rarely (25% of the time)
  - Never (0% of the time)

17

- Alluded to the correct response through **voice intonation**
  - Always (100% of the time)
  - Frequently (75% of the time)
  - Sometimes (50% of the time)
  - Rarely (25% of the time)
  - Never (0% of the time)

18

- Alluded to the correct response through **eye gaze/directionality**
  - Always (100% of the time)
  - Frequently (75% of the time)
  - Sometimes (50% of the time)
  - Rarely (25% of the time)
  - Never (0% of the time)
19
• Alluded to the correct response through **facial expressions or eye brow movement**
  •  ○ Always (100% of the time)
  •  ○ Frequently (75% of the time)
  •  ○ Sometimes (50% of the time)
  •  ○ Rarely (25% of the time)
  •  ○ Never (0% of the time)

**Analysis of Diagnostic Results**
14. For the following, please select **Yes** or **No**. When analyzing the results of a diagnostic test, have you ever asked an interpreter to:

20
• Analyze the client’s responses compared to other Spanish speakers or speakers of the client’s particular Spanish dialect?
  •  ○ Yes
  •  ○ No

21
• Give their opinion on the how the client’s speech or language compares to other Spanish speakers or speakers of the client’s particular Spanish dialect based off of their knowledge of the Spanish language?
  •  ○ Yes
  •  ○ No

22
• Comment on whether a client’s speech or language is typical in comparison to other speakers of the Spanish language or specific dialect of the Spanish language?
  •  ○ Yes
  •  ○ No

**Comments and Future Training**
23
Based upon your experience, rate your overall experience of working with interpreters.
  •  ○ 5 - Excellent
  •  ○ 4 - Very Good
  •  ○ 3 - Satisfactory
  •  ○ 2 - Unsatisfactory
24
Based upon your own experiences, what is the most challenging aspect of working with an interpreter in a diagnostic session?

- People Skills/Interpersonal Skills
- Confusion of Roles
- Language Barrier
- Time Constraints
- Inadequate Communication with the Interpreter
- Lack of Cultural Sensitivity / Knowledge

25
Do you feel that a training workshop that educated interpreters on the basic essentials pertaining to interpreting within the field of speech and language pathology would be beneficial to interpreters?

- Yes
- No

26
Select to what extent you feel that the following topics should be included if such a training were to be offered to interpreters:

- Administration of formal and informal diagnostic tests
  - Strongly Agree
  - Agree
  - Neutral
  - Disagree
  - Strongly Disagree

27
- Professional Terminology (acronyms/medical terms)
  - Strongly Agree
  - Agree
  - Neutral
  - Disagree
  - Strongly Disagree

28
- Interpreting the speech of clients with communication disorders
  - Strongly Agree
  - Agree
• Neutral
• Disagree
• Strongly Disagree

29
• Collecting case histories
  • Strongly Agree
  • Agree
  • Neutral
  • Disagree
  • Strongly Disagree

30
• Conveying test findings
  • Strongly Agree
  • Agree
  • Neutral
  • Disagree
  • Strongly Disagree

31
• Disseminating information (such as speech and language stimulation techniques or parent education materials) to clients and their families
  • Strongly Agree
  • Agree
  • Neutral
  • Disagree
  • Strongly Disagree

32
• Counseling clients and their families
  • Strongly Agree
  • Agree
  • Neutral
  • Disagree
  • Strongly Disagree

APPENDIX B: Interpreter Survey
Demographic Information

1. Select all certifications or trainings that you have received as an interpreter.
   - Bridging the Gap Medical Interpreter Training
   - Cultural Sensitivity Training
   - Other form of training / certification
   - None of the above

2. How many years have you worked as an interpreter?

3. How many years have you interpreted for assessment/evaluation and/or speech therapy sessions?

4. Select your native language(s):
   - English
   - Spanish
   - Other

5. List other language(s) in which you are fluent:
   - English
   - Spanish
   - Other

6. Select the option that best describes your English language proficiency:
   - 5 - Native
   - 4 - Near-native
   - 3 - Very proficient
   - 2 - Somewhat proficient
   - 1 - Not proficient

7. Select the option that best describes your Spanish language proficiency:
   - 5 - Native
   - 4 - Near-native
   - 3 - Very proficient
   - 2 - Somewhat proficient
Select the types of speech therapy settings in which you have interpreted for a diagnostic. Select all that apply:

- School
- Hospital / Medical Setting
- Private Practice
- University Clinic
- Other

Select the age range of Spanish speaking clients for whom you have interpreted in a speech therapy setting for a diagnostic. Select all that apply:

- Birth to 3 years
- 3-6 years
- Elementary
- High School
- Adult (18+ years)

Diagnostic Barriers
For the following questions, please select Yes or No.

In your experience, have you received adequate instruction from a speech-language pathologist about how to administer an assessment test?

- Yes
- No

Have you administered Spanish editions of formal assessment tests when assessing Spanish-speaking clients?

- Yes
- No

Have you ever been asked to administer an English version of a formal assessment test by interpreting it to the client in Spanish?

- Yes
- No
Has a speech-language pathologist ever asked you for an analysis of a client’s speech or of their elicited responses?

- ○ Yes
- ○ No

14

Has a speech language pathologist ever asked for your opinion of a client’s speech based off of your Spanish knowledge?

- ○ Yes
- ○ No

15

Has a client’s speech ever been so unintelligible (difficult to understand) to the point that you were not able to accurately interpret what was said?

- ○ Yes
- ○ No

16

Do you find it difficult to interpret the speech of young clients with communication disorders?

- ○ Yes
- ○ No

Semantic Barriers

For the following questions, please select Yes or No.

17

Have you ever encountered any unfamiliar acronyms that presented a challenge when interpreting?

- ○ Yes
- ○ No

18

Have you ever encountered any unfamiliar medical terminology that presented a challenge when interpreting?

- ○ Yes
- ○ No

19

Have you ever encountered any unfamiliar terminology relating to procedures or techniques specific to the field of speech and language pathology that presented a challenge when interpreting?

- ○ Yes
- ○ No
20
When interpreting, have you ever oversimplified what was said by a speech-language pathologist in order for the message to be understood by a client or their family to the point that part of the meaning was lost in interpretation?

- Yes
- No

Interpreting Protocol
21
How often do you conduct a pre-session with the speech-language pathologist prior to a diagnostic session to explain how the interpreting process will occur?

- Always (100% of the time)
- Frequently (75% of the time)
- Sometimes (50% of the time)
- Rarely (25% of the time)
- Never (0% of the time)

22
How often do you conduct a post-session with the speech-language pathologist to discuss the following:

- how the diagnostic session went
  - Always (100% of the time)
  - Frequently (75% of the time)
  - Sometimes (50% of the time)
  - Rarely (25% of the time)
  - Never (0% of the time)

- questions pertaining to the outcome of the diagnostic session
  - Always (100% of the time)
  - Frequently (75% of the time)
  - Sometimes (50% of the time)
  - Rarely (25% of the time)
  - Never (0% of the time)

24
- what can be improved to allow for better diagnostic sessions in the future
• Always (100% of the time)
• Frequently (75% of the time)
• Sometimes (50% of the time)
• Rarely (25% of the time)
• Never (0% of the time)

25
When interpreting, typically the meaning of what is said is more important than what words were actually said. Do you find this to be true when interpreting a client’s speech in a diagnostic setting?
• Yes
• No

26
Has interpreting in First Person ever created confusion for a client?
• Yes
• No

27
Have you ever switched to interpreting in the Third Person to avoid confusion for the client?
• Yes
• No

28
Do you find it difficult to interpret what is said by a speech-language pathologist to a child?
• Yes
• No

Interpreting Ethics

29
Has a speech-language pathologist ever asked you to do something that you feel is outside of your scope of practice as an interpreter?
• Yes
• No

30
Have you ever felt pressured by a speech-language pathologist to interpret more than just the meaning of what was said?
• Yes
• No
APPENDIX C: Email Cover Letter to SLPs

My name is Allison Mettrey, and I am a junior at Eastern Kentucky University. I am double-majoring in Communication Disorders and Spanish, and am conducting research for my undergraduate Honors Thesis on communication barriers between Speech-Language Pathologists and interpreters that influence service delivery when serving Spanish-speaking clients and their families. If you are not an ASHA certified Speech-Language Pathologist (CCC-SLP) or do not have experience working with an
interpreter when serving a Spanish-speaking client and/or their family, then this survey
does not apply to you, but I thank you for your time. However, if you are an ASHA
certified Speech-Language Pathologist (CCC-SLP) and have involved an interpreter
when working with a Spanish-speaking client and/or their family, your participation in
this survey would be greatly appreciated.

The survey takes approximately 5 minutes to complete. Participation in the survey
is completely voluntary, and you may choose to withdraw from the survey at any time
without any repercussions. All responses are anonymous and no identifying information
will be collected during the survey. All information collected will be kept confidential,
and data will only be reported in aggregate. By reading this email and clicking on the
survey link, you are affirming that you are voluntarily participating in this survey and
consent to your responses being utilized for the purpose of this study. You have until
September 30th, 2013 to complete the survey. If you have any questions, contact Allison
Mettey at allison_mettey@mymail.eku.edu. Thank you for your time and contribution to
the field!

**APPENDIX D: Email Cover Letter to Interpreters**

My name is Allison Mettey, and I am a junior at Eastern Kentucky University. I
am double-majoring in Communication Disorders and Spanish, and am conducting
research for my undergraduate Honors Thesis on communication barriers between
Speech-Language Pathologists and interpreters that influence service delivery when
serving Spanish-speaking clients and their families. If you do not have experience
interpreting in the English and Spanish languages, or if you do not have experience
interpreting for a Spanish-speaking client and/or their family within a speech therapy setting, then this survey does not apply to you, but I thank you for your time. However, if you are an interpreter for the English and Spanish languages and have experience interpreting for a Spanish-speaking client and/or their family within a speech therapy setting, your participation in this survey would be greatly appreciated.

The survey takes approximately 5 minutes to complete. Participation in the survey is completely voluntary, and you may choose to withdraw from the survey at any time without any repercussions. All responses are anonymous and no identifying information will be collected during the survey. All information collected will be kept confidential, and data will only be reported in aggregate. By reading this email and clicking on the survey link, you are affirming that you are voluntarily participating in this survey and consent to your responses being utilized for the purpose of this study. You have until September 30th, 2013 to complete the survey. If you have any questions, contact Allison Mettey at allison_mettey@mymail.eku.edu. Thank you for your time and contribution to the field!

APPENDIX E: Tables

Table 1.1
Demographic Information of SLPs Surveyed (N=67*)

<table>
<thead>
<tr>
<th>Demographic Category</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Place of Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School</td>
<td>56</td>
<td>83.6%</td>
</tr>
<tr>
<td>Hospital / medical setting</td>
<td>3</td>
<td>4.5%</td>
</tr>
<tr>
<td>Private Practice</td>
<td>1</td>
<td>1.5%</td>
</tr>
<tr>
<td>University Clinic</td>
<td>1</td>
<td>1.5%</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>9.0%</td>
</tr>
</tbody>
</table>

Frequency SLPs utilized an interpreter with a Spanish-speaking client or family
<table>
<thead>
<tr>
<th>Activities SLPs utilized interpreters in service delivery</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening</td>
<td>30</td>
<td>22.4%</td>
</tr>
<tr>
<td>Diagnostic</td>
<td>50</td>
<td>37.3%</td>
</tr>
<tr>
<td>Parent / client interview</td>
<td>54</td>
<td>40.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Settings where SLPs utilized an interpreter</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>51</td>
<td>71.8%</td>
</tr>
<tr>
<td>Hospital / medical setting</td>
<td>6</td>
<td>8.5%</td>
</tr>
<tr>
<td>Private practice</td>
<td>1</td>
<td>1.4%</td>
</tr>
<tr>
<td>University clinic</td>
<td>2</td>
<td>2.8%</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>15.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years of having Spanish-speakers as part of caseload</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>40</td>
<td>60.6%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>13</td>
<td>19.7%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>9</td>
<td>13.6%</td>
</tr>
<tr>
<td>16-20 years</td>
<td>2</td>
<td>3.0%</td>
</tr>
<tr>
<td>21-25 years</td>
<td>2</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age range of Spanish-speaking clients that SLPs have utilized an interpreter</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 3 years</td>
<td>17</td>
<td>15.5%</td>
</tr>
<tr>
<td>3-6 years</td>
<td>39</td>
<td>35.5%</td>
</tr>
<tr>
<td>Elementary</td>
<td>44</td>
<td>40.0%</td>
</tr>
<tr>
<td>High School</td>
<td>6</td>
<td>5.5%</td>
</tr>
<tr>
<td>Adult (18+ years)</td>
<td>4</td>
<td>3.6%</td>
</tr>
</tbody>
</table>

*N varied slightly on several demographic questions

Table 1.2
Demographic Information of Interpreters Surveyed (N=19)*

<table>
<thead>
<tr>
<th>Demographic Category</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certifications and trainings of Interpreters Surveyed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridging The Gap Medical Interpreter Training</td>
<td>16</td>
<td>39.0%</td>
</tr>
<tr>
<td>Cultural sensitivity training</td>
<td>10</td>
<td>24.4%</td>
</tr>
<tr>
<td>Other form of training / certification</td>
<td>14</td>
<td>34.1%</td>
</tr>
<tr>
<td>None of the above</td>
<td>1</td>
<td>2.4%</td>
</tr>
<tr>
<td>Years of experience as an interpreter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>---------</td>
<td>---</td>
</tr>
<tr>
<td>0-5 years</td>
<td>9</td>
<td>47.4%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>4</td>
<td>21.1%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>5</td>
<td>26.3%</td>
</tr>
<tr>
<td>26+ years</td>
<td>1</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years of experience interpreting for assessment/evaluation and/or speech therapy sessions</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>14</td>
<td>73.7%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>4</td>
<td>21.1%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>1</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Native language(s) of interpreters surveyed</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>8</td>
<td>40.0%</td>
</tr>
<tr>
<td>Spanish</td>
<td>11</td>
<td>55.0%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other languages in which interpreters surveyed were fluent</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>12</td>
<td>52.2%</td>
</tr>
<tr>
<td>Spanish</td>
<td>9</td>
<td>39.1%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>8.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>English language proficiency of interpreters surveyed</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – Native</td>
<td>10</td>
<td>55.6%</td>
</tr>
<tr>
<td>4 – Near-native</td>
<td>2</td>
<td>11.1%</td>
</tr>
<tr>
<td>3 – Very proficient</td>
<td>6</td>
<td>33.3%</td>
</tr>
<tr>
<td>2 – Somewhat proficient</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>1 – Not proficient</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spanish language proficiency of interpreters surveyed</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – Native</td>
<td>52.6%</td>
<td></td>
</tr>
<tr>
<td>4 – Near-native</td>
<td>36.8%</td>
<td></td>
</tr>
<tr>
<td>3 – Very proficient</td>
<td>10.5%</td>
<td></td>
</tr>
<tr>
<td>2 – Somewhat proficient</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>1 – Not proficient</td>
<td>0.0%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Speech therapy settings that interpreters surveyed interpreted for a diagnostic</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>4</td>
<td>13.8%</td>
</tr>
<tr>
<td>Hospital / medical setting</td>
<td>12</td>
<td>41.4%</td>
</tr>
<tr>
<td>Private practice</td>
<td>6</td>
<td>20.7%</td>
</tr>
<tr>
<td>University clinic</td>
<td>4</td>
<td>13.8%</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>10.3%</td>
</tr>
</tbody>
</table>
Age range of Spanish-speaking clients that interpreters had interpreted for during a diagnostic

<table>
<thead>
<tr>
<th>Age Range</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 3 years</td>
<td>6</td>
<td>15.8%</td>
</tr>
<tr>
<td>3-6 years</td>
<td>9</td>
<td>23.7%</td>
</tr>
<tr>
<td>Elementary</td>
<td>10</td>
<td>26.3%</td>
</tr>
<tr>
<td>High School</td>
<td>3</td>
<td>7.9%</td>
</tr>
<tr>
<td>Adult (18+ years)</td>
<td>10</td>
<td>26.3%</td>
</tr>
</tbody>
</table>

*N varied slightly on several questions

Table 2.1
Current Practice of What is done by Interpreters When Administering a Diagnostic  
(N=17)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes n</th>
<th>Yes Percentage</th>
<th>No n</th>
<th>No Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you received adequate instruction from a SLP about how to administer an assessment test?</td>
<td>11</td>
<td>64.7%</td>
<td>6</td>
<td>35.3%</td>
</tr>
<tr>
<td>Have you administered Spanish editions of formal assessment tests when assessing Spanish-speaking clients?</td>
<td>7</td>
<td>41.2%</td>
<td>10</td>
<td>58.8%</td>
</tr>
<tr>
<td>Have you even been asked to administer an English version of a formal assessment test by interpreting it to the client in Spanish?</td>
<td>10</td>
<td>58.8%</td>
<td>7</td>
<td>41.2%</td>
</tr>
<tr>
<td>Has a SLP ever asked you for an analysis of a client’s speech or of their elicited responses?</td>
<td>9</td>
<td>52.9%</td>
<td>8</td>
<td>47.1%</td>
</tr>
<tr>
<td>Has a SLP ever asked for your opinion of a client’s speech based off of your Spanish knowledge?</td>
<td>11</td>
<td>64.7%</td>
<td>6</td>
<td>35.3%</td>
</tr>
</tbody>
</table>

Table 2.2
Frequency of SLPs’ Practice of BID Procedure (Pre-sessions and Post-sessions with the Interpreter)  
(N=66)*

<table>
<thead>
<tr>
<th>Element of BID Procedure</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefing (Pre-session with the interpreter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What to expect during a session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Always (100% of the time)</td>
<td>13</td>
<td>21.3%</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
<td>12</td>
<td>19.7%</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
<td>10</td>
<td>16.4%</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
<td>18</td>
<td>29.5%</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
<td>8</td>
<td>13.1%</td>
</tr>
</tbody>
</table>
Explaining how to administer a formal or informal assessment test

<table>
<thead>
<tr>
<th>Frequency of Use</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always (100% of the time)</td>
<td>24</td>
<td>40.0%</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
<td>8</td>
<td>13.3%</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
<td>10</td>
<td>16.7%</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
<td>8</td>
<td>13.3%</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
<td>10</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

Debriefing (Post-session with the interpreter)

How the diagnostic session went

<table>
<thead>
<tr>
<th>Frequency of Use</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always (100% of the time)</td>
<td>23</td>
<td>39.0%</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
<td>12</td>
<td>20.3%</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
<td>10</td>
<td>16.9%</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
<td>9</td>
<td>15.3%</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
<td>5</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

Answer questions pertaining to the outcome of the diagnostic session

<table>
<thead>
<tr>
<th>Frequency of Use</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always (100% of the time)</td>
<td>24</td>
<td>40.7%</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
<td>8</td>
<td>13.6%</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
<td>13</td>
<td>22.0%</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
<td>11</td>
<td>18.6%</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
<td>3</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

Discussion of what can be improved to allow for better diagnostic sessions in the future

<table>
<thead>
<tr>
<th>Frequency of Use</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always (100% of the time)</td>
<td>9</td>
<td>15.5%</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
<td>6</td>
<td>10.3%</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
<td>17</td>
<td>29.3%</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
<td>17</td>
<td>29.3%</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
<td>9</td>
<td>15.5%</td>
</tr>
</tbody>
</table>

*N varied slightly on several questions

Table 2.3
Current Practice Behaviors of SLPs Surveyed When Working with Interpreters During a Diagnostic (N=66)*

<table>
<thead>
<tr>
<th>Behavior</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of using family members or family friends of the Spanish-speaking client to interpret during a diagnostic session in the absence of an interpreter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Always (100% of the time)</td>
<td>2</td>
<td>3.0%</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
<td>8</td>
<td>12.1%</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
<td>11</td>
<td>16.7%</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
<td>21</td>
<td>31.8%</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
<td>24</td>
<td>36.4%</td>
</tr>
<tr>
<td>Frequency of allotting additional when scheduling a diagnostic session that involves an interpreter (i.e., planning for a longer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 2.4
Occurrence of Interpreter Behaviors as Observed by SLPs that can Potentially Invalidate an Assessment (N=53)*

<table>
<thead>
<tr>
<th>Behavior</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alluding to the correct response through gestures (e.g. hand movements, body language)</td>
<td>44</td>
<td>84.6%</td>
</tr>
<tr>
<td>Alluding to the correct response through voice intonation</td>
<td>41</td>
<td>80.4%</td>
</tr>
<tr>
<td>Alluding to the correct response through eye gaze/directionality</td>
<td>37</td>
<td>71.2%</td>
</tr>
<tr>
<td>Alluding to the correct response through facial expressions or eye brow movement</td>
<td>42</td>
<td>79.2%</td>
</tr>
</tbody>
</table>

* N varied slightly on several questions

### Table 2.5
Ways that SLPs Utilized Interpreters in the Analysis of Diagnostic Results (N=54)*

<table>
<thead>
<tr>
<th>SLPs surveyed asked Interpreters to:</th>
<th>n</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compare the client’s responses to other Spanish-speakers or speakers of the client’s dialect</td>
<td>34</td>
<td>64.2%</td>
</tr>
<tr>
<td>Give their opinion on how the client’s speech or language compares to other Spanish-speakers based off of their knowledge of the Spanish language</td>
<td>37</td>
<td>68.5%</td>
</tr>
<tr>
<td>Comment on whether a client’s speech or language is typical in comparison to other speakers of Spanish or specific dialect</td>
<td>33</td>
<td>63.5%</td>
</tr>
</tbody>
</table>

* N varied slightly on several questions

### Table 2.6
Frequency of Pre-sessions and Post-sessions by Interpreters with SLPs (N=17)*

<table>
<thead>
<tr>
<th>diagnostic)</th>
<th>Always (100% of the time)</th>
<th>Frequently (75% of the time)</th>
<th>Sometimes (50% of the time)</th>
<th>Rarely (25% of the time)</th>
<th>Never (0% of the time)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19</td>
<td>11</td>
<td>14</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Form(s) of assessment used when assessing Spanish-speaking clients through an interpreter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal / standardized</td>
</tr>
<tr>
<td>Informal (language sampling, oral mechanism examination)</td>
</tr>
<tr>
<td>Both (formal and informal)</td>
</tr>
<tr>
<td>Observation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asked an interpreter to administer an English edition of an assessment test by interpreting it into Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Pre-session or Post-session Topic</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Pre-session</strong></td>
</tr>
<tr>
<td><strong>Explaining how the interpreting process will occur</strong></td>
</tr>
<tr>
<td>Always (100% of the time)</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
</tr>
<tr>
<td><strong>Post-session</strong></td>
</tr>
<tr>
<td><strong>Discuss how the diagnostic session went</strong></td>
</tr>
<tr>
<td>Always (100% of the time)</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
</tr>
<tr>
<td><strong>Discuss questions pertaining to the outcome of the diagnostic session</strong></td>
</tr>
<tr>
<td>Always (100% of the time)</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
</tr>
<tr>
<td><strong>Discuss what can be improved to allow for better diagnostic sessions in the future</strong></td>
</tr>
<tr>
<td>Always (100% of the time)</td>
</tr>
<tr>
<td>Frequently (75% of the time)</td>
</tr>
<tr>
<td>Sometimes (50% of the time)</td>
</tr>
<tr>
<td>Rarely (25% of the time)</td>
</tr>
<tr>
<td>Never (0% of the time)</td>
</tr>
</tbody>
</table>

*N varied slightly on several questions

<table>
<thead>
<tr>
<th>Table 2.7</th>
<th>Deviations from Interpreting Protocol within a Speech Therapy Setting (N=16)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspect of Interpreting Protocol</td>
<td>Yes $n$</td>
</tr>
<tr>
<td>When interpreting in a diagnostic session, do you find the meaning of what is said to be more important than what words were actually said?</td>
<td>7</td>
</tr>
<tr>
<td>Has interpreting in First Person ever created confusion for a client?</td>
<td>10</td>
</tr>
<tr>
<td>Have you ever switched to interpreting in Third Person to avoid confusion for the client?</td>
<td>11</td>
</tr>
</tbody>
</table>

*N varied slightly on several questions
Table 2.8
Ethical Considerations for Interpreting within a Speech Therapy Setting (N=16)

<table>
<thead>
<tr>
<th>Ethical Consideration</th>
<th>Yes n</th>
<th>Yes Percentage</th>
<th>No n</th>
<th>No Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has a SLP ever asked you to do something that you felt was outside of your scope of practice as an interpreter?</td>
<td>4</td>
<td>25.0%</td>
<td>12</td>
<td>75.0%</td>
</tr>
<tr>
<td>Have you ever felt pressured by a SLP to interpret more than just the meaning of what was said?</td>
<td>2</td>
<td>12.5%</td>
<td>14</td>
<td>87.5%</td>
</tr>
</tbody>
</table>

Table 3.1
Barriers for Interpreters When Interpreting within a Speech Therapy Setting (N=17)*

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Yes n</th>
<th>Yes Percentage</th>
<th>No n</th>
<th>No Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has a client’s speech ever been so unintelligible to the point that you were not able to accurately interpret what was said?</td>
<td>12</td>
<td>70.6%</td>
<td>5</td>
<td>29.4%</td>
</tr>
<tr>
<td>Do you find it difficult to interpret the speech of young clients with communication disorders?</td>
<td>8</td>
<td>57.1%</td>
<td>6</td>
<td>42.9%</td>
</tr>
<tr>
<td>Have you ever encountered any unfamiliar acronyms that presented a challenge when interpreting?</td>
<td>8</td>
<td>47.1%</td>
<td>9</td>
<td>52.9%</td>
</tr>
<tr>
<td>Have you ever encountered any unfamiliar medical terminology that presented a challenge when interpreting?</td>
<td>12</td>
<td>75.0%</td>
<td>4</td>
<td>25.0%</td>
</tr>
<tr>
<td>Have you ever encountered any unfamiliar terminology relating to procedures or techniques specific to the field of speech and language pathology that presented a challenge when interpreting?</td>
<td>6</td>
<td>35.3%</td>
<td>11</td>
<td>64.7%</td>
</tr>
</tbody>
</table>

* N varied slightly on several questions

Table 3.2
SLPs’ (N=56) and Interpreters’ (N=14) Level of Satisfaction of Working with Each Other

<table>
<thead>
<tr>
<th>Level of Satisfaction</th>
<th>SLP n</th>
<th>SLP Percentage</th>
<th>Interpreter n</th>
<th>Interpreter Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – Excellent</td>
<td>4</td>
<td>7.1%</td>
<td>6</td>
<td>42.9%</td>
</tr>
<tr>
<td>4 – Very Good</td>
<td>24</td>
<td>42.9%</td>
<td>5</td>
<td>35.7%</td>
</tr>
<tr>
<td>3 – Satisfactory</td>
<td>22</td>
<td>39.3%</td>
<td>3</td>
<td>21.4%</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>4</td>
<td>7.1%</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>----------------</td>
<td>---</td>
<td>-------</td>
<td>---</td>
<td>------</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
<td>3.6%</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Table 5.1
Most Challenging Aspect SLPs and Interpreters Experienced When Working Together

<table>
<thead>
<tr>
<th>Topics</th>
<th>SLP n</th>
<th>SLP Percentage Indicating “Strongly Agree”</th>
<th>Interpreter n</th>
<th>Interpreter Percentage Indicating “Strongly Agree”</th>
</tr>
</thead>
<tbody>
<tr>
<td>People skills / Interpersonal Skills</td>
<td>1</td>
<td>1.9%</td>
<td>2</td>
<td>15.4%</td>
</tr>
<tr>
<td>Confusion of boles</td>
<td>14</td>
<td>25.9%</td>
<td>3</td>
<td>23.1%</td>
</tr>
<tr>
<td>Language barrier</td>
<td>14</td>
<td>25.9%</td>
<td>2</td>
<td>15.4%</td>
</tr>
<tr>
<td>Time constraints</td>
<td>16</td>
<td>29.6%</td>
<td>1</td>
<td>7.7%</td>
</tr>
<tr>
<td>Inadequate communication with the other professional</td>
<td>5</td>
<td>9.3%</td>
<td>1</td>
<td>7.7%</td>
</tr>
<tr>
<td>Lack of cultural sensitivity / knowledge</td>
<td>4</td>
<td>7.4%</td>
<td>4</td>
<td>30.8%</td>
</tr>
</tbody>
</table>

Table 5.2
“Strongly Agree” (1) or “Agree” (2) Topics for Future Training for SLPs (N=56*) and Interpreters (N=15)
Professional terminology (acronyms/medical terms) & 38 & 69.1% & 14 & 93.3% \\
Interpreting the speech of clients with communication disorders & 41 & 73.3% & 15 & 100% \\
Collecting case histories & 39 & 69.7% & 8 & 53.3% \\
Conveying test findings & 43 & 76.8% & 13 & 86.7% \\
Disseminating information to clients and their families & 44 & 78.6% & 10 & 66.6% \\
Counseling clients and their families & 42 & 75.0% & 8 & 53.3% \\

*N changed to 55 for “Administration of formal and informal diagnostic tests” and “Professional terminology (acronyms/medical terms)”

Table 5.3
Amount of SLPs (N=56) and Interpreters (N=15) that Support Future Training of Interpreting within a Speech Therapy Setting

<table>
<thead>
<tr>
<th>In Support of Future Training</th>
<th>SLP n</th>
<th>SLP Percentage</th>
<th>Interpreter n</th>
<th>Interpreter Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>55</td>
<td>98.2%</td>
<td>15</td>
<td>100.0%</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>1.8%</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>