
**Impact of Service-Learning on Latinx College Students
Engaged in Intervention Services for the Deaf:
Building Multicultural Competence**

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ABSTRACT: This article explores the experiences of Spanish-speaking Latinx university students in a sign language interpreting program who were enrolled in service-learning classes. In the service-learning classes, the students partnered with a community service agency for the deaf that provided intervention services to Spanish-speaking families with deaf children. The findings indicate that the students developed a deeper awareness of their multicultural and multilingual identity. Moreover, the students gained authentic experiences in brokering linguistic and cultural differences between the American deaf and Latinx communities in an effort to enhance intervention services for the deaf Latinx children.

KEYWORDS: American Sign Language, Deaf culture, Spanish, service-learning, cultural-brokering

[Introduction and Objectives](#)

[Method](#)

[Discussion](#)

[Conclusion](#)

[References](#)

[Author Contact](#)

Introduction and Objectives

Multicultural societies like the United States need professionals who can adapt and respond to diverse communities. Many colleges and universities provide

programs that prepare students to become professionals who can address social justice and social equity needs of historically oppressed social, cultural, ethnic, and linguistic minority groups. Examples of these programs may include Chicano studies for Latinx¹ individuals, African studies for Black individuals, Queer studies for LGBTQIA+ individuals, and Deaf² cultural studies for deaf individuals. These programs spotlight diverse needs and inequalities in society. However, one potential limitation of these programs is that they can overemphasize one unifying characteristic. This can be problematic, especially when members within a group also belong to other historically oppressed groups (e.g., Latinx and LGBTQIA+, Black and deaf individuals, deaf and LGBTQIA+ individuals). A heavy emphasis on one form of marginalization can limit the need to consider others along multiple axes of social equity and justice (Cho, Crenshaw, & McCall, 2013). One way that programs can respond to this challenge is to use a multicultural framework that encourages students to reconsider how social justice issues that impact individuals from one marginalized community can differ when the same individuals also belong to other marginalized communities (Walby, Armstrong, & Strid, 2012).

This study seeks to examine the implications of applying a multicultural framework with a group of Latinx students who were fluent in Spanish and English. The students were enrolled in a Deaf cultural studies program focused on sign language interpreting that required them to learn American Sign Language (ASL) and to consider how many people in the deaf community struggled to achieve social justice and social equity due to audism (Bauman, 2004) or discrimination against the deaf community by hearing persons. While there was some focus on racial and ethnic diversity in the deaf community, there was limited discussion of how social justice and equity issues would impact their role in the deaf community. In particular, this study sought to examine how Latinx students were able to acquire a deeper level of multicultural and multilinguistic awareness using a community-based form of learning called service-learning experience (Enos & Morton, 2003). The study explores how students examined issues of audism in their own Spanish-speaking Latinx community and considered its potential implications on them and other community members involved in the service learning project

¹ The term Hispanic in the United States has been revisited lately and replaced for terms that are more embracive of cultural and lifestyle variations (Taylor, Lopez, Martínez, & Velasco, 2012) “Latinx” is now the preferred term since it is inclusive, gender-neutral, and does not reflect a binary gender construct. This new term was officially added in September 2018 in the Merriam-Webster Dictionary (Merriam-Webster, n.d.). The term “Hispanic” is still utilized in Census-related information. At the time the study was conducted, the term “Latinx” was not yet widely used, and instead, the term “Hispanic” was a most commonly used term. For this reason, the term “Hispanic” occasionally appears in some sections of this manuscript, as it was the original term used in the research protocol, in the interviews, or the consulted bibliographical sources.

² The deaf community makes a distinction between the physical qualities of being deaf or hard of hearing by using the lower case “d”: deaf. By comparison, the deaf community uses the upper case “D” or Deaf to denote a Deaf culture or the shared belief system and value of signed language that has been passed from multiple generations for more than two centuries in the United States

Overview of Interpreter Training

Interpreter training programs (ITPs) were established in the 1970s in the U.S. to train students to interpret between English and ASL, the deaf community's natural language in the U.S. (Cormier, Schrembi, & Woll, 2010; Liddel, 2003). Interpreter training programs focus on developing students' abilities to convert language between ASL and English. In recent years, ITPs have begun to promote an "Allyship" service model that is based on a critical theory framework of *audism* (Eckert & Rowley, 2013), or widespread marginalization of deaf individuals' aims to be perceived as a linguistic minority that views access to signed language as a basic human right (Holcomb, 2013; Padden & Humphries, 2005).

Historically, hearing persons have viewed deafness through a deficit framework that focuses on what deaf individuals lack, like the capacity to hear and use spoken language (Cripps & Supalla, 2012; Humphries et al., 2013; Nover, 1995). More than 90% of deaf children are born to non-deaf parents (Mitchell & Karchmer, 2004). These parents typically lack sign language proficiency and intuitive understanding of how to engage deaf children (Gallaudet Research Institute, 2013). Most non-deaf parents defer to medical professionals who tend to pathologize deafness in children and seek to "fix" it using strategies that promote speech (Cripps & Supalla, 2012; Nover, 2000). While some deaf children progress using this approach (Nussbaum, Scott, & Simms, 2012), many experience language deprivation that can irreversibly harm their language, cognitive, academic, social, and emotional development (Humphries et al., 2013, 2017; Mayberry, 2007; Simms & Thumann, 2007).

As a result of widespread language deprivation and bias against signed languages, the allyship model promotes the idea that deaf individuals are at an inherent disadvantage when communicating with hearing individuals (Witter-Merithew, 1999). Thus, an interpreter's role is to promote more balance in the communication process. As an ally, interpreters need to recognize areas where deaf individuals may need additional support to even the power differentials between deaf and hearing individuals.

Interpreter training also promotes the deaf community's notion of a core "Deaf identity." A Deaf identity asserts that "visual ways of being," including the use of sign language as a primary way of communication, unify signing deaf people all over the world (Bahan, 2008). This core Deaf identity is inherent and fundamental to deaf individuals all over the world, regardless of race or ethnicity (De Clerck, 2007).

However, some scholars in the deaf community argue that the singular vision of a Deaf identity in the U.S. is Eurocentric (McCaskill, 2005). Several studies that identify discrimination in the deaf community support this assertion. For example, studies indicate that Latinx deaf children have been targets of microaggressions from deaf students who are Caucasian (García-Fernández, 2014). Another study found significant differences in the access to services for Latinx families with deaf children (Gerner de Garcia, 2000). Latinx parents also report that they struggle to pass down their culture to their deaf children because

they lack a shared language (Steinberg et al., 2003). Similarly, McCaskill (2005) found that members of the deaf African American community experienced marginalization due to bullying and discrimination. Several studies also describe the significant disparities in Latinx and African American children compared to Caucasian deaf children (Marschark et al., 2015; Myers et al., 2010).

Missing from the discussion of a Deaf identity is the marginalization that results from *culturalism* (bias against cultural difference) and *linguisticism* (bias against a language) within the deaf community itself (Gerner de Garcia, 2000). The deaf community and ITPs should examine culturalism and linguisticism in hearing communities towards the deaf. They also must confront biases within the deaf community against members of ethnic and minority groups (García-Fernández, 2014, Gerner de Garcia, 2000).

One potential reason for the marginalization may be the lack of representation in professional fields that support deaf individuals. For example, few ASL interpreters or teachers of the deaf children are from Latinx or other racial and ethnic backgrounds. According to 2018 Census figures, data from the Registry of Interpreters for the Deaf (2017), and National Survey of Teachers of the Deaf (CEASD, 2018), the U.S. population is about 60% Caucasian, but about 85% of interpreters and teachers of the deaf are Caucasian. Similarly, census data show that the U.S. is 18% Hispanic, but organizational data reveal that only 5% of interpreters and teachers of the deaf are Hispanic. In sum, while the deaf community is generally underserved (McLaughlin, 2010; Obasi, 2013), interpreters from underrepresented communities are especially needed.

The Latinx deaf community needs qualified interpreters with multicultural and multilingual fluency. Nationally, about 25% of deaf children are Latinx; in western states, however, around 40% of deaf children are Latinx (Gallaudet Research Institute, 2013), and often their families speak Spanish. Because few interpreters are fluent in Spanish, English, and ASL, many deaf individuals and their families have limited access to services (Steinberg et al., 2003). Moreover, most ITPs cannot provide a multicultural and multilingual education that trains interpreters to work in trilingual environments (Lane, Hoffmeister, & Bahan, 1996; Sedano, 1997). Few ITPs offer courses in Spanish language or Latinx culture, and only one, San Antonio College, offers a certificate in trilingual interpreting in Spanish, English, and ASL (Quinto-Pozos et al., 2018).

Service-Learning

One potential strategy to boost multicultural and multilingual awareness in ITPs is to explore marginalization affecting multicultural deaf communities in service-learning. Service-learning offers students rich opportunities for *in situ* learning (Cooks & Schrarrer, 2006). Ehrlich (1995) found that service-learning students had greater enlightened self-esteem, more desire to serve others, deeper appreciation for diversity, and more empathy. Service-learning may also increase students' cultural awareness (Brody & Wright, 2004), as well as confidence, self-esteem, and sensitivity to others' needs. (Berman, 2006). Service-learning can benefit students taking modern languages, like ASL (Cooper, Cripps, & Reisman,

2013; Cripps & Cooper, 2012; Reading & Padgett, 2011) and Spanish (Abbott & Lear, 2010; Bloom, 2008; Isabelli & Muse, 2016; Petrov, 2013; Trujillo, 2009) by increasing their language skills and cultural knowledge.

One potential use of service-learning in interpreter training is to direct students to examine social equity issues faced by deaf individuals from different racial and ethnic groups. Individuals, such as those from the deaf Latinx community, seek their fundamental human rights to fully access and use signed language, form strong connections to their communities, and gain more social equity in both the hearing and deaf communities (Foster & Kinuthia, 2003; Woll & Ladd, 2011). The need for greater social equity is especially prominent in the Latinx deaf community and in-school programs that educate deaf children (Gerner de García, 2000; Narr & Kimmery, 2015; Steinberg et al., 2003). Many in the Latinx community are trying to improve communication access between deaf and hearing people. Quinto-Pozos et al. (2014) chronicled the development of trilingual interpreting initiatives in California, New Mexico, Texas, Florida, Massachusetts (i.e., Boston), Illinois (i.e., Chicago), and Puerto Rico; Quinto-Pozos and colleagues also documented how *Mano a Mano* was established in 2003 as a professional organization for working trilingual interpreters. Building awareness of multicultural issues for interpreting students who are Latinx may help them connect more strongly with both the deaf and Latinx communities and thus make a greater impact.

Purpose of the Study

There is limited research on Spanish-speaking Latinx students preparing to become sign language interpreters. The study examines how Latinx students sought to develop their multicultural and multilingual identities while attempting to support deaf community-based intervention services to Latinx families with deaf children. The intent of the study was to examine how students applied their understanding of social equity issues in the deaf community as they worked with Latinx families. The aim was to give Latinx students a space to identify cultural and linguistic challenges, develop ways to address the challenges, and bridge cross-cultural and cross-linguistic differences between the deaf service agency and the Latinx families. This study seeks to answer the following four research questions:

1. *What multicultural issues did Latinx students identify when working with Latinx families who received intervention services for their deaf children?*
2. *What multilingual processing issues did Latinx students identify when working with Latinx families who received intervention services for their deaf children?*
3. *Did Latinx students have strategies or realizations that allowed them to consider how to provide more culturally and linguistically appropriate services to Latinx families with deaf children?*
4. *How did Latinx students contribute to cross-cultural understanding between the deaf service agency staff and the Latinx families with deaf children?*

Method

The study applied a qualitative approach (Denzin & Lincoln, 2006) through use of self-reports in interviews, questionnaires, and reflection prompts. The researchers used a constructivist approach to understand how participants developed and construed meaning in their lives. The constructivist approach posits that meaning is situated in a time, place, culture, and context, and reflects participants' world views (Charmaz, 2000). All participants were interviewed and had the opportunity to follow up on their responses. Analysis was conducted using a thematic analysis, which aims to explain or construct social and psychosocial processes (Braun & Clarke, 2006). Thematic analysis uses a recursive process where the data are systematically analyzed at multiple levels in order to code, categorize, and develop an understanding of participants' experiences (King, 2004).

Setting

The study was conducted at a university in the western U.S. with a four-year ITP. The university's region has a large Latinx population; according to U.S. census data, more than 50% of county residents there are Latinx. The university is considered a "Hispanic Serving Institution" (HSI), a federal government designation for colleges and universities where at least 25% of full-time undergraduates are Hispanic (Latinx).

Student participants were in one of three service-learning courses: ASL 4, ASL 5, or beginning-level ASL-English interpreting. The ASL classes sought to build students' vocabulary, grammatical knowledge, and understanding of Deaf culture. The interpreting course described different professions (e.g., education, law, medicine, performing arts) and the challenges of maximizing communication while navigating cultural, logistical, and linguistic issues.

The ITP partnered with a local community service agency, the Deaf Service Agency or DSA (a pseudonym) to offer service-learning. The DSA supports the region's deaf community and offers intervention services for families with deaf children, e.g., sign language instruction, training on engaging deaf children, and strategies for boosting deaf children's literacy. More than half of the families receiving services were Latinx and spoke Spanish at home; the DSA's intervention staff member, however, knew no Spanish. The staff member felt unable to provide optimal services for Spanish-speaking families due to lack of Spanish language skills. The authors asked DSA staff and students to work together to facilitate services for the Latinx families. They agreed.

Participants and Procedures

Three groups were recruited for the study: Spanish-speaking students in the ITP, DSA staff, and Latinx families with deaf children. The first group consisted of ITP students who were enrolled in a service-learning course. Ten students chose to participate. Students completed a questionnaire (see Appendix A) about their proficiency in conversational and written Spanish, conversational and written English, and ASL (scale: 5 - high proficiency to 1 - minimal proficiency). The first

author also asked students if they took any Spanish language or literacy courses at the university. The results are displayed in Table 1. (Pseudonyms used to protect students' identities.) On average, students reported very good conversational Spanish (\bar{x} =4.5) and moderately good written Spanish (\bar{x} =3.7). Students reported strong conversational English (\bar{x} =4.4) and written English (\bar{x} =4.2). On average, students were weaker in ASL (\bar{x} =2.9); this was expected because many only recently started learning ASL. All students completed HIPAA (Health Insurance Portability and Accountability Act) training on confidentiality and DSA volunteer training on procedures for working with families.

Table 1. *Student Self-Reported Language Proficiency*

ID#	Pseudonym	Class	Age	Conv Span	Writ Span	Conv Eng	Writ Eng	ASL	Spanish Courses
S01	Rachel	ASL 4	22	5.0	4.0	5.0	5.0	3.0	Yes
S02	Alan	ASL 4	21	4.0	4.0	4.0	3.0	2.0	No
S03	Juli	ASL 4	21	4.0	4.0	4.0	4.0	2.0	Yes
S04	Brianna	ASL 4	24	4.0	4.0	4.0	4.0	2.0	Yes
S05	Wanda	ASL 5	28	4.0	3.0	4.0	4.0	3.0	Yes
S06	Sean	Intp	23	5.0	3.0	5.0	4.0	3.0	No
S07	Melissa	Intp	21	5.0	4.0	5.0	5.0	4.0	Yes
S08	Glenda	Intp	21	5.0	4.0	5.0	5.0	3.0	Yes
S09	Berry	Intp	28	4.0	4.0	4.0	4.0	3.0	Yes
S10	Dakota	Intp	<u>24</u>	<u>4.5</u>	<u>3.0</u>	<u>4.0</u>	<u>4.0</u>	<u>3.5</u>	Yes
Mean (\bar{x})			23.3	4.5	3.7	4.4	4.2	2.9	

The non-student participant included a deaf staff member of the DSA who provided intervention services and had expressed interest in utilizing students. The DSA staff member recruited Spanish-speaking families using the Video Relay Service (VRS). The VRS, which is similar to LanguageLine, allows deaf and hearing individuals to communicate through an interpreter. The VRS also employs some trilingual interpreters (i.e., English, Spanish, and ASL) who can facilitate communication between deaf and Spanish-speaking individuals. The authors reviewed the Spanish language consent form with family members, using students to interpret and address concerns before the study began. All participants were informed of their rights and told that they could withdraw anytime.

Families completed a questionnaire to self-report their language proficiency in conversational and written Spanish, conversational and written English, and ASL (see Appendix B). All families indicated high proficiency in conversational (\bar{x} =4.9)

and written Spanish (\bar{x} =4.6), but more limited proficiency in English, both conversational (\bar{x} =1.4) and written (\bar{x} =1.3). Families reported moderate proficiency using ASL (\bar{x} =2.7). See Table 2.

Table 2. *Family Self-Reports of Language Proficiency*

ID#	Conversational Spanish	Written Spanish	Conversational English	Written English	ASL
F01	5	2	1	1	2
F02	5	5	1	1	2
F03	4	4	2	1	4
F04	5	5	3	3	3
F05	5	5	2	2	3
F06	5	5	1	1	3
F07	5	5	1	1	1
F08	5	5	1	1	3
F09	5	5	1	1	3
Mean (\bar{x})	4.9	4.6	1.4	1.3	2.7

Note: Skills: 1 - *limited*, 2 - *very little*, 3 - *pretty good*, 4 - *good ability*, 5 - *high level*

Materials

This study used three data sets: (a) a demographic and language proficiency questionnaire, (b) interview questions, and (c) reflection prompts. The demographic and language proficiency questionnaires collected background information on students and families. Interview questions were used with families, the DSA staff member, and students. The questions were approved by the university's Institutional Review Board. A study student (Berry) translated the informed consent letter from English into Spanish. The translation's accuracy was verified by an individual who was deaf, Latinx, and fluent in written Spanish.

Data Collection

Data from students were collected using questionnaires and three reflection prompts. After the course was complete, the authors interviewed 9 of the 10 students. The two-hour interviews were conducted in English and then transcribed. An interpreter was present for the first author, a third-generation deaf individual with native ASL proficiency. Data from the DSA staff member was collected in two interviews. The first author asked questions in ASL while the second author videorecorded both interviews. The second author, who is a hearing native signer and a nationally certified interpreter (RID CI/CT), translated the video from ASL into written English. The authors and students collected data from families. The first or second author conducted the interviews with each family, and two students assisted in interpreting. A student assistant, who is Latinx and a native user of Spanish, translated Spanish into English.

Data Analysis

The data were analyzed through recursive processes of coding, categorizing, theorizing, writing, and collection of further data. Interviews and reflection prompts were coded through a process of open coding to identify what was going on in the data. Initial codes included *language access*, *Deaf cultural awareness*, *parental attitudes*, *Latinx cultural values*, *trilingual processing*, and *metacognitive awareness*. Subsequent coding identified the categories and subsequent sub-codes. The final two strategies, theorizing and writing, were used to make sense of the data. The researchers triangulated findings by comparing sources of data (i.e., interviews, demographic questionnaires, and reflection prompts) to identify consistencies and inconsistencies with the literature and by sharing the findings with respondents for validation (Torrance, 2012). The findings concern participants' feelings about the impact of service-learning on Spanish-speaking students, the DSA, and the Latinx families.

Results

The study sought to examine the experiences of Latinx students enrolled in a service-learning class. The results focused on four main areas: multicultural awareness, multilingual processing, integration of multicultural responses, and cross-cultural mediation benefits to community members. The results are described below.

Building Multicultural Awareness

The first research question concerned students' multicultural awareness following the service-learning experience. The data examined the Latinx students' interactions with the Latinx families and focused on the students' deaf-centered perspective of linguistic rights of the deaf child. In their coursework, the students learned about general parental attitudes toward deaf children, how to promote language and communication with their children, and hearing community perceptions of the deaf community. With the service-learning experience, they could understand how these issues affected hearing parents in the Latinx community.

Attitudes. Several students described families with positive attitudes toward their deaf children. Julia noted, "The deaf daughter was very, very helpful when helping out with the signs, and we just learned a lot with the family and just having a very good time having a learning experience." Similarly, other students shared that parents were inquisitive and motivated to learn about ASL and the deaf community, while some families viewed their deaf children negatively. Students they began to grasp a deeper implication of the bias and negative attitudes many deaf people experience. As Glenda recounted,

Prior to my service-learning, I was well aware of the issues that revolved around hearing parents and deaf children. I have learned that being the only deaf person in a hearing family tends to be difficult because the deaf person

is ignored, isolated and neglected. Now this issue has been even more emphasized from what I have seen with the Hispanic family. Despite any ethnicity someone may have, the issue always exists.

Some students struggled with how parents treated their deaf children. Wanda commented that she was frustrated because the parents seemed apathetic,

It's frustrating because you can tell, they're not practicing during the week and they just want to learn the language in that one hour per week. And it's just-- it's-- it gets just frustrating because like you can see the little girl, she's so desperate for them to learn and she's like slamming the signs in her hands. She's like trying so hard. And they've just had these excuses like one after the other like we're working or we're too busy or we have these other kids and it's hard.

Students also shared positive moments when families sought to blend Latinx and Deaf culture. Rachel worked with parents who had learned Mexican Sign Language (LSM) in Mexico. The family wanted to learn ASL because their daughter used ASL at school. The parents were very motivated, and Rachel learned to teach them in an unexpected way: "When I would teach them ASL, they would-- the mother would preferably want to learn it in English and then ASL because Spanish would confuse her since she already knew sign language in Spanish."

Family efforts to process Deaf ways of being. Students sought to help parents who struggled to understand Deaf mannerisms acquired by their children at school. The students sought to describe how facial expressions had linguistic and cultural relevance in ASL and Deaf culture. Berry had explained that facial expressions communicate meaning in ASL, and she shared a story of how a parent realized the importance of facial expressions,

"Oh, you know what? You're so right," because the parents they told her I'm mad at her and they told her to go to her room. And she's like, "You're not mad, you're smiling." And I'm like facial expressions are important in sign. And she's like, yes, she would always call me on it.

Students also reported that they had to clarify the degree of directness parents noticed in their interactions. In Deaf culture, being blunt and direct is a cultural norm. Latinx culture can tend to value reticence and discretion. Melissa described how a deaf child wanted her parents to understand that directness was appropriate in ASL:

It's OK because I'm deaf and this is what deaf people do. But they thought like-- So for an example, the child likes to be very direct and ask a lot of questions and especially in public. And the parents would be like, no, you need to stop asking questions. You need to stop being direct which they didn't understand that that's part of Deaf culture.

The students realized that the range of parental responses reflected how many hearing parents in general struggle with their deaf children. Some parents were open and willing to learn signed languages and Deaf culture. Some parents

wanted to communicate, but didn't know how to because of a lack of access to support, and some parents seemed to struggle to accept their children's deafness. All of these responses are consistent with parents in general. An important insight for the Latinx students was that while they had a deep understanding of how deaf people communicate, visually based ways of communication may not be intuitive for the families. Moreover, the students began to realize that many families struggled to access services because those services were provided in either ASL or English.

Building Multilingual Awareness

Many of the Latinx students took classes in both Spanish and ASL at the university. In their classes, the students generally worked *bilingually*, either between English and Spanish or between English and ASL; only rarely did they have opportunities to use three languages at the same time. Service-learning provided students an opportunity to use all three languages and reflect on their trilingual processing skills. This insight was valuable. As interpreters in training, it deepened their understanding of their overall language fluency and processing abilities in all three languages, especially higher order processing skills, like metacognitive awareness and metalinguistic awareness (Dohm, 2015).

"Meta" abilities are critical for interpreters (Napier & Baker, 2004). Metacognitive abilities allow students to consider what they know and do not know. They allow interpreters to think about how to process between languages. Metalinguistic abilities allow interpreters to consider how the structure and form inherent in one language may differ from another, and consider the functional equivalent needed to convert meaning between languages. In the students' experiences, they had opportunities to work not only between Spanish and English, or ASL and English, but also between Spanish and ASL. This resulted in insights that could have only happened in the service-learning experience. For example, Sean explains:

After beginning the service-learning project, I realized that I am very good at retaining information and being able to interpret it without needing it repeated to me. However, I need to practice for many more hours before I am anywhere near ready to feel comfortable to interpret from English to ASL or even from Spanish to ASL.

Glenda shared that she thought between Spanish and ASL without realizing it.

I didn't realize until my professor mentioned that I was able to receptively look at signs and go straight up, go to a Spanish speaking and like interpret in Spanish. And I guess in the moment, I was doing it and I was able to receptively like watch all the signs and able to interpret it in Spanish without any trouble.

Similarly, students also developed a much better understanding of a core issue discussed in the interpreting program differences between conversational proficiency and academic or professional proficiency. In general, the students expressed conversational confidence in all three languages. However, they began

to recognize their limitations when asked to interpret professional conversations between the DSA staff and Latinx families. Melissa characterized her struggle (one shared by other students) this way:

Well, I noticed that for myself like my English definitely improved obviously. And my ASL, yeah, it's getting there but it's not good yet. But also like with my Spanish, I've noticed that conversationally I'm just pretty good, like I'm really, really good. But when it comes to like more academic things, I have to really think about it. And sometimes I'm able to like figure it out right there on the spot, but other times I went to phone like I Googled it like, "Oh, wait." And that kind of helped fill that gap and I was able to explain it a little better to the family.

Students also noticed that taking advanced Spanish courses at the university enhanced their interpreting. Julia commented,

When it comes to more academic and formal Spanish, that's the harder parts to voice or to say the vocabulary because there's such a difference in dialects. And therefore, just it's kind of confusing where how you want to say it if there's a better more formal professional way to say it. So that's where I guess I would struggle. And even though my advanced Spanish classes are helping, there just needs to be, I guess, a little more of support in that area

An important insight for students was that they needed to continue to develop language skills overall. Glenda wished the ITP offered more opportunities to interpret academic Spanish into ASL. "So it's all very advanced Spanish. I feel like with that. It is improving my knowledge academically in interpreting it. I don't think the remaining opportunities to use that, you know, academic [level of language] besides the interviews [contexts]."

Overall, the students' experiences in service-learning seemed to pique their interest in multi-lingual interpreting. Students also improved their capacity to self-assess their skills and realized that, despite their strong language foundations, they needed more training to become professional interpreters. Most importantly, students realized their value as trilingual interpreters. As Berry commented, "I realize how much of a benefit I could be to the community. Like, I mean yeah, we've heard about it. Like, oh you're trilingual, you're such an asset but this actually gave us the opportunity to be an asset instead of just being told you could be an asset, so it was very beneficial." Glenda shared that "with these special opportunities I have recognized that interpreting between ASL and Spanish is something that I have a skill in. I was not aware of how I would perform prior, but now I am more aware of my abilities and am eager to continue practicing and improving."

Multicultural Solutions

The Latinx students expressed a desire to proactively support deaf individuals in the Latinx community. Their service-learning experience helped them realize the needs of deaf individuals in the Latinx community. It also helped them

realize that Latinx families needed more Latinx-based solutions to improve services culturally and linguistically. Moreover, the students could see change result from their efforts. As Glenda stated,

This semester I feel now it's like more-- it's not just oh, you have to go to complete your hours, it's being involved with the family and making that connection with the family and wanting-- working with them and wanting them to feel like to grow and grow their relationship with their deaf children.

Melissa said that service-learning motivated her to do more for deaf children in the Latinx community. She said, "I really want to like have-- like some kind of organization where we have like different types of services for the Hispanic community. And not just like teaching them ASL, but like parenting and teaching them about Deaf culture, like a variety of things."

Melissa's point raised an important issue about the need to recognize the differences in parenting styles between parents born in the United States and those born in Latin American countries, as the level of autonomy and independence expected from children is different. A valuable lesson from Melissa's response is the importance of bilateral learning that could happen between providers/educators and Latinx parents. Providers and educators can help Latinx parents improve their ASL knowledge and understanding of the Deaf culture, while Latinx parents can teach them Spanish language skills and different forms of parenting cultural proficiency.

Cross-cultural Benefits

The community members also provided their own insights into how Latinx students influenced their interactions. Both the DSA staff member and Latinx families reported that students provided a vital bridge that greatly enhanced communication and cultural understanding between them. The DSA staff member shared her perspective:

Obviously, communication access has been the biggest way that they've helped me. Before the service-learning students, I had very limited conversations with the families because of the language barrier and because I'm a white deaf woman. Since we have had the service-learning students who are Hispanic, the families have opened up and asked many questions.

In turn, the Latinx families felt they had a greater opportunity to receive explanations to help them learn signed language and enhance communication with their deaf children. In the beginning, many parents felt limited in their capacity to communicate with their deaf children. Parents struggled to communicate with their children using abstract or higher-level language. Most communication relied on pointing, gesture, and simple signs. For example, a parent (P1) said, "Sometimes I point, sometimes I use, or when like when someone has (Interpretation) 'to look' mad, then with the eyebrows they see if we're happy." Another parent (P4) also stated she mainly used, "Sign, pointing, gestures, not fingerspelling. I have one semester learning sign and I've improved, not 100%, but 30%."

With the students, the families seemed more willing to ask questions and to learn different strategies to improve their communication. One parent (P2) shared, "I feel like you guys do a great job explaining and showing us sign language. Also, that you guys are able to explain it to us in our language, Spanish." Another parent (P5) commented that when students communicated in Spanish, learning signs became easier and they retained more ASL. "Very good. They do a good job in teaching me the signs, and it's even better that they speak Spanish, because if they spoke English then I wouldn't be able to understand them."

There were also moments when the students provided cross-cultural mediation to clarify linguistic nuances. In ASL, some signs are initialized, meaning the sign incorporates the manual alphabet's handshape for first letter of the word in English (Brentari & Padden, 2001). The students realized that the DSA staff and families applied a different linguistic strategy to initializing their signs. The staff member asked the students to clarify one misunderstanding for her.

One way the students helped me understand some confusion parents had with the some of the (initialized) signs in ASL. For example, the sign for Uncle and Aunt use the handshape that represents the first letter of the word in English. However, in Spanish, the word is spelled differently so parents wanted to incorporate the T-handshape for Tio (Uncle) or Tia (Aunt).

The Latinx students also bridged cultural understanding between the DSA staff member and the Latinx families. At the most basic level, the DSA staff member learned the relevance of objects in the home, such as the *ofrenda* (offering) used to celebrate *Día de los Muertos* (Day of the Dead). The DSA staff member saw that the Latinx community's support for each other was similar to her experiences of how deaf community members supported each other.

Discussion

The study examined outcomes of a service-learning project of Latinx Spanish-speaking students in an ASL-English interpreter training program (ITP). In the service-learning project, the students work with a Deaf Service Agency (DSA) that provides home visits to Latinx families with deaf children. The results indicated that the students developed a deeper appreciation of the challenges Latinx families face in raising their children. The students also developed a baseline to assess their abilities when working among Spanish, English, and ASL. The students also reported that they felt more passionate and committed to working with deaf Latinx individuals and their families, and to providing cultural and linguistic support services. Finally, community members, including the DSA staff and Latinx families, received much-needed language support. This provided the DSA staff member an opportunity to explain concepts more deeply and provided families more opportunities to ask questions about how to better support their deaf children. These findings are consistent with those described in previous studies that examined service-learning experiences of students working with individuals who use ASL (Cooper, Cripps, & Reisman, 2013) and Spanish (Bloom, 2008; Trujillo, 2009).

The findings suggest that there is a benefit in using service-learning in multicultural education where students need to think along multiple axes of culture and language. In general, students adopting a critical studies framework will examine the marginalization of a smaller community through the discriminatory practices of mainstream society. In this study, students were exploring the discriminatory practices of audism. While it was important for students to understand the impact of audism on deaf individuals, a missing element in the students' education was an exploration of the implications of how audism could be compounded by other forms of marginalization, such as the marginalization of deaf individuals from Latinx communities in American society.

The implications of omitting this deeper level analysis can have wide-ranging negative impacts at the educational, field-specific, and societal levels. Educationally, students miss opportunities to gain understanding of complex and multi-faceted societal issues, such as intersectional views of different forms of discrimination (Crenshaw, 1989). Students also miss forming deeper connections with one form of discrimination (i.e., audism) that intersected with another form of discrimination (i.e., racism and/or linguisticism). As a result, a lack of representation that builds meaningful connections to students could be one reason for the under-representation of racial and ethnic groups in professional fields serving deaf individuals. This underrepresentation impacts the services that ethnic and minority populations receive to support deaf individuals in their communities (Gerner de Garcia, 2000; Steinberg et al., 2003).

This study found that while service-learning can support diversity education in ITPs, it also provides beneficial, hands-on training for students. In particular, the service-learning experience offered the Latinx students an opportunity to apply their language abilities in Spanish, English, and ASL. Few interpreting programs in the United States offer Latinx students opportunities to use work between Spanish, English, and ASL at the same time. The findings from this study suggest that the interpreting program can use service-learning experiences to provide students the opportunity to broker multiple languages and develop a deeper appreciation of the challenges in processing three (or more) languages that can eventually spur them to join *Mano a Mano*, a trilingual interpreting organization in the United States.

Lastly, cultural understanding and cultural mediation was an important theme throughout this study but was limited in its scope. The findings in this study involved only a few Latinx families and Latinx students and one deaf staff member and are not intended to be over-generalized to the broader population. The study suggests that some of the Latinx families struggled to communicate effectively and may have viewed deafness as an intimidating and confusing experience. Ogden and Smith (2017) suggest that while the outward appearance of the parents may seem to be indifference and obliviousness, they show expressions of deep concern and love. Ogden and Smith added that, as parents become more familiar with the value and potential of deafness through cultural understanding and mediation, they are more likely to become actively involved in their children's development. In

addition, a greater familiarity with Deafness results in Latinx parents becoming more willing to integrate Deaf and Latinx cultural values.

Conclusion

A limitation of this study was a limited focus on community members perspectives of the Latinx students' assistance. Due to scheduling conflicts and limited time, second interviews could not be arranged with each family. Additional feedback from parents may have provided a deeper understanding of how the Latinx family members and DSA staff member evolved in their level of understanding of the intervention process. It may also have provided more information about the potential contributions of the Latinx students.

There are several potential future studies. One could conduct a lengthier study to see if students' impact on families lasts over a sustained period, since initial results suggest that their success may be tied to families' interest and motivation. A second could examine if service-learning students pursued careers as trilingual interpreters, since several study students reported feeling more motivated to become trilingual. A third could explore other collaborations between Spanish-speaking Latinx language students and Latinx families to improve services, e.g., revising the DSA's printed Spanish-language materials or building a family network. A parent group has been successful in the Los Angeles area through efforts by Narr and colleagues (Narr & Kemmery, 2015) and parent advocate Irma Sanchez, a Latinx parent of three deaf children; replicating these efforts could benefit the local community.

In summary, the study shows how Spanish-speaking Latinx language users can support Latinx families in service-learning experiences. The study also shows that service-learning courses in which ITPs collaborate with community service agencies can support underserved communities. Finally, service-learning courses can help Latinx students recognize their value as interpreters and their unique abilities to support deaf individuals. This study documents the role of interpreters as cultural brokers and facilitators, not only from the perspective of the Latinx ethnicity, but also from the perspective of the culture of the Deaf and Hard of Hearing community. Latinx students are particularly relevant for Latinx communities as resources that can dispel misunderstandings about deaf individuals. They can also bridge gaps in the Latinx community between previous perceptions of deafness as a disability and current understandings of deaf people as differently-abled persons with potential and capabilities, just like hearing persons.

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Appendix A:

Student Demographic Information

Name: _____

Current Age: _____

Languages use and capacity

What age did you first start to learn Spanish: _____

What country were you born in (e.g., U.S., México): _____

If you were born outside of the U.S., what age did you move to the U.S.

What country or countries are your ancestors from (e.g., México, Panamá, Guatemala): _____

Using the rating system below, please rate your ability to use the following:
(1 - limited, 2 - very little, 3 - pretty good, 4 - good ability, 5- high level)

Conversational Spanish: 1 2 3 4 5

Written Spanish: 1 2 3 4 5

English

What age did you first start to learn English: _____

Using the rating system below, please rate your ability to use the following:

How would you rate your conversational English: 1 2 3 4 5

How would you rate your written English: 1 2 3 4 5

American Sign Language

What age did you first start to learn ASL: _____

Which college or university did you first take ASL Level 1? _____

What grade do you receive in the following ASL courses: A, B, C or NE (Now enrolled)

ASL 1 ____, ASL 2 ____, ASL 3 ____, ASL 4 ____, ASL 5 _____

Using the rating system below, please rate your ability to use the following:

How would you rate your conversational ASL: 1 2 3 4 5

Appendix B

Employment and Education

How long have you lived in the U.S.?

What country did you live before moving to the U.S.?

Where do you work? Dad: _____

Mom: _____

What is the highest level of education? Dad: _____

Mom: _____

(grade level, H.S., AA, BA, MA)

Family Members

How many people live in your household? _____

How many children do you have? _____

How many children live with you now? _____

How many deaf children do you have? _____

Language Use and Communication

Who is home most with your deaf child? _____
(e.g., mom, dad, sibling, other relative)

How often does dad communicate with your deaf child?

(e.g., rarely, some, often)

How proficient are with the following language forms?
(1 - limited, 2 - very little, 3 - pretty good, 4 - good ability, 5- high level)

Spoken Spanish: 1 2 3 4 5

Written Spanish: 1 2 3 4 5

Spoken English: 1 2 3 4 5

Written English: 1 2 3 4 5

Sign language: 1 2 3 4 5

How often do you communicate with your deaf child?
(1 - none, 2 - rarely, 3 - some, 4 - often, 5- mostly)

Spoken Spanish: 1 2 3 4 5

Written Spanish: 1 2 3 4 5

Spoken English: 1 2 3 4 5

Written English: 1 2 3 4 5

Signing: 1 2 3 4 5

If you use sign, how do you sign with your deaf child?
(1 - none, 2 - rarely, 3 - some, 4 - often, 5- most of the time)

Pointing: 1 2 3 4 5

Gesture: 1 2 3 4 5

Signs: 1 2 3 4 5

Fingerspelling: 1 2 3 4 5