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INTERPRETING FOR DEAF AND HARD OF HEARING STUDENTS

The Role of Access: Interpreting for Deaf Immigrant Students

By

Anna Jacobs

An action research project submitted to

Western Oregon University

In partial fulfillment of the

requirements for the degree of:

Master of Arts in Interpreting Studies

August 2021

2021 Anna Jacobs

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**WE, THE UNDERSIGNED MEMBERS OF THE GRADUATE FACULTY OF
WESTERN OREGON UNIVERSITY HAVE EXAMINED THE ENCLOSED**

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The Role of Access: Interpreting for Deaf Immigrant Students

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*and hereby certify that in our opinion it is worthy of acceptance as partial fulfillment
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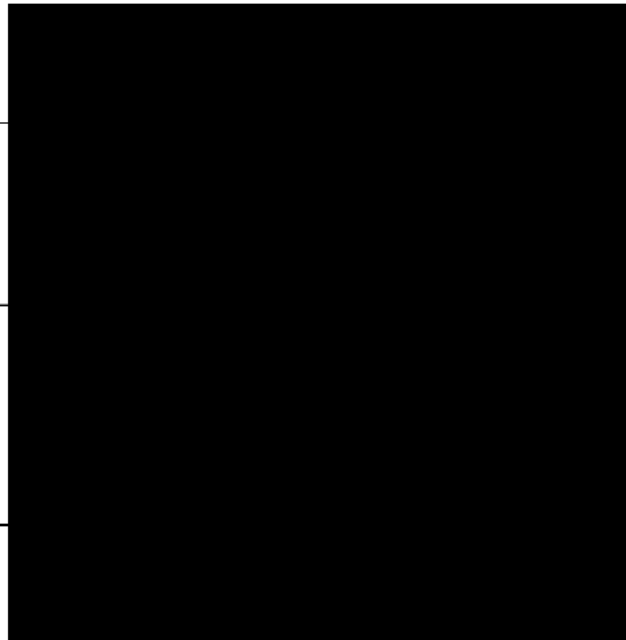
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Abstract

The Role of Access: Interpreting for Deaf and Hard of Hearing Immigrant Students

By

Anna Jacobs

Master of Arts Interpreting Studies

Western Oregon University

August 27th, 2021

As immigrant and refugee populations in American schools continue to increase, the education system has opted for changes to better accommodate these students. The impact schools are experiencing requires careful reflection and analysis. Considering the number of deaf individuals who are included within the immigration numbers, it seems incumbent upon American Sign Language (ASL) interpreters as professionals to also prepare themselves in order to provide accessible interpretations for students. This research will highlight the progression and change within the educational interpreter's landscape and attempt to provide temporary strategies that ASL interpreters can utilize

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while the student is in the process of learning ASL and English. This work will be viewed through the lens of trauma informed care while specifically addressing trauma derived from both the migration process and language deprivation.

Keywords: deaf, immigrant, student, interpreter, trauma

Chapter 1: Introduction

As I began this study, I was unaware of the multitude of layers I would uncover regarding trauma from migration and language deprivation. Even more so, I was not mentally prepared for the emotional toll that such research could take on an individual. This research was conducted through a Trauma-Informed Lens, attempting to see individuals' behaviors as possible symptoms of trauma, rather than making misguided assumptions about their actions (Wilson, et al., 2013). It is with great respect for each child's individual experience during the stages of migration that we analyze the possible trauma associated with it.

Background

My first experience interacting with a deaf immigrant student was unexpectedly intimidating. At the time, I had my undergraduate degree in American Sign Language (ASL) Interpreting and had worked as an educational ASL interpreter for nearly a decade. I considered myself somewhat experienced, but in this situation, I was a novice. My interpretation could be perfect, but that perfection was useless to a consumer who could not access the language.

The student was a newcomer who had recently arrived in the United States, and they were unfamiliar with ASL and English. Although it was clear they were an English Language Learner (ELL), they were never placed in an English to Speakers of Other Languages (ESOL) class. Confused as to why this student, eager to learn English, would

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be excluded from services, I inquired into the reasoning behind it. I was informed they were not provided English classes due to an outdated policy that prohibited students from receiving services under multiple programs.

The student was receiving services under Special Education (SPED) due to her deafness. A staff member from the English Learner (EL) program informed me that students were not able to be “dually identified”. Since the student was provided an interpreter under SPED, they were not allowed to also receive language classes which are provided through the EL program.

In January of 2015, the Assistant Secretary for Civil Rights and the Acting Assistant Attorney General for Civil Rights composed a “Dear Colleague” letter to school districts reminding them of their obligation under Title VI of the Civil Rights Act of 1964. They addressed State educational agencies and school districts, encouraging them to “take affirmative steps to ensure that students with Limited English Proficiency (LEP) can meaningfully participate in their educational programs and services” (p. 1). The letter reiterated this established federal policy, contradicting previous constructs that prevent students with dual identification from accessing their education.

School districts must provide EL students with disabilities with both the language assistance and disability-related services to which they are entitled under Federal law... The Departments are aware that some school districts have a formal or informal policy of “no dual services,” i.e., a policy of allowing students to receive either EL services or special education services, but not both. Other districts have a policy of delaying disability evaluations of EL students for special education and related services for a specified period of time based on their EL status. These

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policies are impermissible under the IDEA and Federal civil rights laws, and the Departments expect SEAs to address these policies in monitoring districts' compliance with Federal law. Further, even if a parent of an EL student with a disability declines disability-related services under the IDEA or Section 504, that student with a disability remains entitled to all EL rights and services as described in this guidance. (U.S Department of Justice and U.S Department of Education, 2015, pp. 24-25)

We must question the prevalence of this type of occurrence and attend to the implications of deaf EL students being positioned into a mainstream classroom with only an English speaking ASL interpreter.

Educational Interpreters

The Registry of Interpreters for the Deaf (RID) is the overarching governing organization for American Sign Language Interpreters and English Translitterators in the United States (RID, 2018). It provides the guiding principles in education and standards, as they relate to the field of ASL interpreting. Outside of RID, there are multiple professional organizations dedicated to specific disciplines within the interpreting field. One such entity, the National Association of Interpreters in Education (NAIE), provides specialized guidelines for ASL interpreters who work in the K-12 education system. These interpreters are referred to as educational interpreters but will be referenced as EIs for the duration of this paper. The mission of NAIE is to promote best standards of practice through education, support, and guidelines for the empowerment of deaf, hard of hearing, and deafblind students (NAIE, 2021).

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Interpreting for deaf and hard of hearing (DHH) students is a unique and complex discipline requiring specific knowledge and skills (Schick, 2007). NAIE (2019) describes a qualified educational interpreter (EI) as one who has completed a 4-year degree with training in educational interpreting, received at least a 4.0 on the Educational Interpreter Performance Assessment (EIPA), has passed the EIPA Written Test, practices professional development, and participates in supervision.

The need for highly qualified interpreters in education is driven by the understanding that education is accessed through language. The impact an interpreter can have on a student's education is insurmountable (Caselli et al., 2020). Schick and Williams, the creators of the EIPA, conducted a study on over 2,000 educational interpreters and determined that approximately 60% of EI's had "inadequate skills" (2005, p. 3). The skill level of the majority of EIs suggests that many DHH students were and still are receiving substandard access to their education. This supports the need of Deaf language models for DHH students (2020).

A language model is a person who is proficient in their native language and teaches the appropriate use of that language in conversation (Caselli, 2020; Schick, 2007). While data shows that multiple language models are needed for optimum language learning, the reality is that many DHH students are not provided that luxury. In some unfortunate situations, a single hearing interpreter, whose first language was not ASL, may be the only language model a deaf student has (Caselli et al., 2020). This provides challenges of its own as there are more benefits from learning a language from a native user rather than one that acquired the language through education or later in life. Additionally, some studies even point to the detriment that an interpreted education can

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have on a student, noting the value in direct instruction and the vital role accessible peer relationships play in development (Caselli et al., 2020; Marschark et al., 2004).

Changing Landscape

Currently, there are over 44.9 million immigrants residing in the United States, a number which includes 18 million children (Batalova, et al., 2021). One in every four children in the United States lives with at least one parent who is foreign-born (Linton & Green, 2021). In FY 2020, more than 11,800 refugees were resettled in the United States, with more expected as the current administration recently raised the ceiling of refugees to 125,000 for the year 2022. Of all immigrant children, 64% live in six states although there are increases in states that, up until now, have not been considered a destination for immigrants (MPI, 2019). The Center for Immigration Studies (CIS) (2015) projects overall immigration population numbers to hit 60 million by 2040. With the understanding that this population is on the rise and will continue to disperse across the country, it is important to ensure ASL interpreters are prepared to accommodate the new landscape.

With this increase in immigrant population numbers, there has also been a parallel increase of deaf and hard of hearing students with immigration status (Pew Research Center, 2021). This new landscape consists of immigrant and refugee deaf students who may not be familiar with the English language and ASL. When interpreters are met with this new communication and/or socioemotional challenge, they must be sure they adjust their interpreting to ensure students' access to information. Witter-Merithew and Nicodeums (2010), noting the influx of DHH immigrants and refugees, speaks on the

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“need for individuals who can manage the complex linguistic, cultural, and social challenges faced by these populations” (2010, p.67).

Deaf Immigrant and Refugee Students

Research depicts a considerable prevalence of deafness in low-income countries (Stevens, 2013; Czechowicz, et al., 2010). The World Health Organization estimates that those countries’ accounts for about 80% of the 70 million deaf individuals worldwide (WHO, 2021; World Federations of the Deaf, 2013). With the understanding that immigrant children are considered the fastest growing subgroup of children in the United States (American Psychological Association, 2008; American Academy of Pediatrics, 2013), and that about 75% of immigrants migrate from low-income countries (United Nations DESA, 2020), it can be safely assumed that the DHH immigrant population will continue to rise as well. Simply put, the majority of the people migrating here come from countries with high percentages of deaf and hard of hearing individuals, therefore, anticipating higher numbers of deaf and hard of hearing immigrant students enrolling in the public school system is appropriate. The current expectations of EIs do not meet the need to accommodate the influx of this population.

Deaf English Language Learner (DELL)

As of now, there is no terminology that accurately denotes the population of students that are both Immigrant/Refugee English Language Learners and DHH. English Language Learner or ELL is defined as “children who are ages 3-21 whose native language is not English or whose use of a language other than English at home has a significant impact on their level of English language proficiency” (ESSA, 2015). “ELL”

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does not accurately represent this population because it does not address students' hearing loss. Another term, Dual Language Learner (DLL) is defined as "children ages 8 and under with at least one parent who speaks a language other than English at home" (MPI, 2017). Dual Language Learner is also insufficient, as it only applies to children ages eight and under and does not account for the hearing loss of DHH students. Therefore, for the purpose of this paper, the term Deaf English Language Learner, or DELL, will be used to refer to those students who are both Immigrant/Refugee English Language Learners and DHH.

Statement of Problem

When deaf and hard of hearing immigrant students are placed into mainstream classrooms with an interpreter, there are times that an interpreter's traditional ASL interpreting will not be accessible to the student. Not all ASL Educational Interpreters have acquired the necessary knowledge and tools to interpret for DELL students, and as this population continues to rise, there is a vital need to equip interpreters with the resources to make education accessible.

Purpose of Study

The purpose of this research is to bring attention to this underserved population due to the lack of educational access. This study provides communication strategies for interpreters to use in classroom settings. Previous researchers studied this particular group of students through detailed interviews and thorough surveys of the interpreters who work with DELL students (Fichera-Lening, 2016; Fischbeck, 2018). This research responds to Fichera-Lening and Fischbeck's call to continue the study and even takes a

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step forward by implementing the strategies into the interpreter's personal work.

Additionally, it highlights the necessity for interpreters to have face-to-face communication and a robust toolkit of strategies they can use while the student is acquiring language. It further illustrates an acceptable role for interpreters that complies with NAIE and EIPA Guidelines.

Theoretical Framework

Social research has sought to push for a change of perspective within Human Service professions (Institute of Trauma and Trauma-Informed-Care, 2020). The Contemporary Trauma Theory (CTT) posits that most people have experienced trauma and that that trauma can have detrimental effects on a person's life (Fallot & Harris, 2008). According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014):

...trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being. Events or circumstances that can lead to trauma may include the actual or extreme threat of physical or psychological harm (i.e. natural disasters, violence, etc.) or severe, life-threatening neglect for a child that imperils healthy development. It also may be an event or circumstances inflicted by one group on another (e.g., usurping homelands, forced relocation, servitude, or mass incarceration, ongoing exposure to violence) (2014).

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When working with individuals who have complex needs, this position considers the notion that their life experiences significantly impact their behavior and/or learning (Harris & Fallot, 2001). Often, there is a focus on an individual's challenging or offensive behavior. This outlook does not create space for the likelihood that their trauma is acting as the pretext to their behavior. This concept that one is not necessarily bad, just traumatized- led to the model of Trauma Informed Care, or TIC. TIC follows six guiding principles, put forth by SAMHSA (2014), who built upon the original work from Fallot and Harris. The principles are safety, trustworthiness, peer support, collaboration, empowerment, and cultural gender issues. Implementing these principles promotes a healthy environment to avoid re-traumatization.

Immigrant children are highly susceptible to trauma, whether it begins in their homeland, during the migration process, or the acclimation period (Birman, 2002; Martinez, 2019). Akamatsu and Cole (2000) remark on the possibility of immigrant children migrating from countries taken over with war, crime, and disease. During the migration process, research shows that 25% of immigrant children are separated from their parents which can give rise to anxiety and depression (Lu et al., 2020). Upon arrival into a new country, they may experience racism, bullying, and judgement (Hernandez, 2020), adding to their already fragile mental state and perpetuating trauma. These experiences alone are distressing and painful, but when combined with hearing loss, the entire ordeal can be catastrophic to a child's mental health.

Viewing this research through the CTT lens and incorporating it into one's work could aid in perpetuate healing within these students, allowing for the mental space to learn. This understanding is relevant to all who work with immigrant children. Currently,

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children are fleeing Central America and its corrupt government because violence, abuse, and murder are rampant (Sherman et al., 2019). Sherman reported for AP news that in 2019, there were almost 70,000 migrant children being held in U.S government custody (2019). The New York Times reported a surge of migrant children entering Mexico earlier this year, ensuing a jump from a calculated 380 children to 3,500 over the course of three months (Abi-Habib, 2021). The children are escaping poverty and violence and are seeking refuge in the United States. More children fleeing Afghanistan and Ethiopia add to these already increasing numbers, some even arriving without parents (Hudson & Sacchetti, 2021; Anderson, 2017). When one considers the significant trauma these students may bring with them, the importance of TIC becomes apparent.

As an interpreter, being aware of triggers that could result in re-traumatization, creating a feeling of trust and safety, and making oneself aware and respectful of various cultures, are all things that make the work effective.

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Definition of Terms

American Sign Language: “American Sign Language (ASL) is a complete, natural language that has the same linguistic properties as spoken languages, with grammar that differs from English. ASL is expressed by movements of the hands and face. It is the primary language of many North Americans who are deaf and hard of hearing and is used by some hearing people as well” (U.S Department of Health and Human Services, 2021).

Deaf: profound hearing loss, which implies very little or no hearing (WHO, 2021).

Deaf/Hard of Hearing (DHH): Those who are deaf or hard of hearing.

Deaf English Language Learner (DELL): Deaf English Language Learner; within the context of this paper, a DELL student is a Deaf or Hard of Hearing student who is in the process of learning the English language.

Educational Interpreter (EI): Educational interpreters provide communication access to students who are deaf or hard of hearing by faithfully and accurately representing the classroom instruction, teacher/student dialogue, and relevant sound information in the mode of communication used by the student (Schick, 2007).

English Language Learner (ELL): A national-origin-minority student who is limited-English-proficient. This term is often preferred over limited-English-proficient (LEP) as it highlights accomplishments rather than deficits (US Department of Education, 2020).

English as a Second Language (ESL): A program of techniques, methodology and special curriculum designed to teach ELL students English language skills, which may include listening, speaking, reading, writing, study skills, content vocabulary, and cultural

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orientation. ESL instruction is usually in English with little use of native language (US Department of Education, 2020).

First-generation immigrants: Those whose parents were born outside the United States (Child Trends, 2018).

Foreign born: This term is used interchangeably with ‘immigrant’ and refers to persons with no U.S. citizenship at birth. This population includes naturalized citizens, lawful permanent residents, refugees and asylees, persons on certain temporary visas, and unauthorized immigrants (MPI, 2021).

Hard of Hearing: People with hearing loss ranging from mild to severe (WHO, 2021).

Immigrant Children: All children who have at least one foreign-born parent (Child Trends, 2018).

Incidental Learning: Refers to any learning that is unplanned or unintended. It develops while engaging in a task or activity and may also arise as a by-product of planned learning (Kelly, 2012).

Language Deprivation: Language deprivation occurs due to a chronic lack of full access to a natural language during the critical period of language acquisition (when there is an elevated neurological sensitivity for language development), approximately the first five years of a child’s life. Language deprivation during the critical period appears to have permanent consequences for long-term neurological development (Hall, et al., 2017).

Language Deprivation Syndrome: Used to refer to the deficits, both cognitive and linguistic, that result from language deprivation (Gulati, 2018).

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Language Model: Children learn language by seeing or hearing it from someone who is proficient in the language. Although parents, families, and peers are the primary models; many other adults and children provide language models as well (Caselli, 2020; Schick, 2007).

Language Proficiency: Refers to the degree to which the student exhibits control over the use of language, including the measurement of expressive and receptive language skills in the areas of phonology, syntax, vocabulary, and semantics and including the areas of pragmatics or language use within various domains or social circumstances. Proficiency in a language is judged independently and does not imply a lack of proficiency in another language (US Department of Education, 2020).

Limited English Proficiency (LEP): See English Language Learner.

Individual Education Plan (IEP): A plan or program developed to ensure that a child who has a disability identified under the law and is attending an elementary or secondary educational institution receives specialized instruction and related services (University of Washington).

Modality: In the field of sign language interpreting, modality is speech, sign, or some combination of both (Schick, 2007). Modality can also refer specifically to a signed language, differentiating between characteristics of natural sign languages and artificially created signing systems (Wilbur, 2012).

Refugees and Asylees: Individuals who are unable or unwilling to return to their country of origin or nationality because of persecution or a well-founded fear of persecution (MPI, 2019).

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Second-generation immigrants: Those whose parents were born in the United States or its territories (Child Trends, 2018).

World-Class Instructional Design Assessment (WIDA): The WIDA Consortium is a member-based organization made up of U.S. states, territories and federal agencies dedicated to the research, design and implementation of a high-quality, standards-based system for K-12 English language learners. They provide language assessments, professional learning, and educator assistance (WIDA, 2019).

Chapter 2: Literature Review

This chapter reviews the scholarly literature surrounding the topic of interpreting for students who are deaf or hard of hearing immigrants and refugees. There are several studies researchers who have begun this work, including Fichera-Lening (2016) and Fischbeck (2018), and both iterate the need for continued research on this topic. Each study conducted on this population utilizes a new lens which offers a range of perspectives, although there is still a gap in the available literature, furthering the call for more study.

The Role of Trauma in Migration

The inducement of migration to the United States varies for each individual. While there are a multitude of reasons for the journey, the most common are cited as being better living conditions, access to better education, or escape from a dangerous country (Covington Clarkson, 2008; Akamatsu & Cole, 2000). Regardless of the determinant, findings provide evidence for the high likelihood of traumatic experiences occurring before, during, and after migration for children (Perreira & Ornelas, 2013; Akamatsu & Cole, 2000).

Low-income countries contribute a large percentage of immigrants and refugees to the United States (United Nations, 2019). In some developing countries, free education for children is rare, and even more so for those labeled as disabled (Jenker & Hillman, 2004). In fact, those who are poor, female, or disabled, may not be afforded the

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opportunity to attend school at all. If the family lives in poverty or has little money, there is more incentive to keep the child at home to perform household chores or beg for money. It is not uncommon for individuals who are deaf to never attend school.

Many Deaf people in the United States do not feel that their deafness is a disability or impairment (Ludden, 2018). Rather, they identify with the strong culture and community and function in society the same as anyone else. Comparatively, other cultures see deafness as a burden or shame (Akamatsu & Cole, 2000). When deafness is perceived in that manner, the child's education and mental health can be greatly impacted (Akamatsu, 1993; Gerner de Garcia, 1993). Some parents assume that a child who is deaf and does not speak is unable to learn. This confusion is not uncommon and may lead parents to unintentionally delay or even deprive their children of language (2000). Conducted research shows that many deaf immigrant children arrive in the United States without command of any language, spoken or signed (Turner, 1996; Earth, 2013).

At times, war-zoned and politically violent nations are the catalyst for migration, although it should be mentioned that not all immigrants and refugees who do migrate come from such areas (Infante, et al., 2011). Regardless, the process of migration is arduous for many of them. A portion of children experience forced separation from their parents, thus becoming vulnerable to victimization (Deluca, et al., 2010). In 2019, it was reported that almost 70,000 children were held in government custody, detained away from their parents (Sherman, et al., 2019). An experience of this kind opens children up to victimization and trauma (Suarez-Orozco et al., 2002; Yoshikawa, 2011). At arrival, children are then forced into a whirlwind of life altering transitions to their social, cultural, and linguistic understandings (Pumariega & Rothe, 2010).

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The culmination of these events and stressors can subsequently lead to Post Traumatic Stress Disorder for students, creating on-going hindrances to their capacity for language acquisition and learning (Perreira & Ornelas, 2013; Akamatsu & Cole, 2000; Ziegler, 2013). As they are thrown into the turbulence of the American education system, they are met with new physical, mental, and social demands that add to the already tainted journey that was meant to be a haven of hope (Piper, 2006). Martinez, et al., (2019) notes that after migration, immigrant children often face discrimination, racism, and social isolation which simply continues the bombardment of destructive trauma.

The Role of Trauma in Language Deprivation

According to the Worldwide Federation of the Deaf (2013), 90 percent of deaf adults and children around the world have never attended school. In impoverished countries, sign language is often quelled and repressed, resulting in severe language deprivation. The account of a female refugee from Bhutan, a country in south Asia, spoke about her experience in an interview and expressed that she was never allowed to attend school in her home country and was instead assigned to work in the rice fields; “There was no language. No instruction” (Evans, 2019).

If a child is not given access to a natural language during the first 5 years of their life, referred to as the critical period, language deprivation and subsequent trauma occurs (Hall, et al., 2017). Language deprivation is a rather rare occurrence, in most instances (Hall, et al., 2017, Shattuck, 1980). There are only a handful of extreme cases of neglect and abuse horrible enough to result in such extreme damage (Gulati, 2018), but this rarity in the world of the hearing is considered an epidemic within the world of the deaf (2017).

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Dr. Gulati, a staff psychiatrist in the Deaf and Hard of Hearing Program at Children's Hospital, Boston, refers to the deficits culminated from continuous language deprivation as Language Deprivation Syndrome (LDS) (2018). Gulati coined this term in 2018 and depicts LDS as an "incomplete neurodevelopment". More than 90% of deaf children are born to hearing parents and the vast majority of these parents never acquire fluency in sign language which in turn, restricts a child's access to language starting at a very early age (Shein, 1989; Mitchell & Karchmer, 2004; Johnson, et al. 2018; Mitchell & Karchmer, 2005). This commonly occurs not only in developing countries, but also in privileged first-world countries. With this limited or restricted access to early language, children who are deaf or hard of hearing may develop severe deficits within their "fund of information". The deficits act as gaps within their general knowledge and accrue after consistent lack of access to incidental learning (Johnson, et al., 2018; Mitchell & Karchmer, 2005). Incidental learning takes place without intent, instruction, or participation (Hopper, 2019). It occurs when one "over-hears" interactions around them, subconsciously picking up bits of information and language; "an unconscious acquisition of knowledge" (Kelly, 2012). Without this "background knowledge" attained through incidental learning, socio-emotional growth and vocabulary development are negatively impacted (Convertino et al., 2014).

Empirical evidence found that early language experience is required for full growth of brain language pathways, and that the degree to which those pathways mature correlates with language development (Cheng et al., 2019). Deaf individuals with adolescent language deprivation showed altered neural activation patterns for lexical and sentence processing (see Cheng et al., 2019; Hecht, 2020; Mayberry et al., 2011, 2018;

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Gulati, 2018). Cognitive breakdowns resulting from LDS create impairment in memory, attention, time sequencing, thought processing, mood regulation, executive functioning, and social emotional skills (Gulati, 2018; Hecht, 2020; Hall et al, 2017).

There is a considerable range of literature that details the trauma commonly associated with the deaf population. These studies show that deaf individuals experience higher rates of sexual and physical trauma than those who are not deaf (Bisol, et al., [2008](#); Kvam, [2004](#), as cited in Schild & Dalenberg, 2015). Schild & and Dalenberg conducted a study and stated, “If generalizations can be made from this sample, the vast majority of deaf children enter adulthood having experienced a potentially traumatizing life event during childhood or adolescence” (2015).

As a result of this trauma and abuse, high numbers of deaf people experience psychopathy, a neuropsychiatric disorder (Hall, et al., 2017). General implications that hearing loss itself induces psychiatric issues has been deemed mainly inaccurate, as continued studies have proven that language deprivation simply mimics those symptoms.

Communications Director Crowley-Arklie (2015) said that we take communication for granted because it comes so easily to the majority of us. The value of communication is vividly apparent through a particular study on deaf youth from a foster care system. It was reported that the deaf children interviewed preferred to stay with their abusive caregivers who could sign, rather than be placed into a home where no one could communicate with them (Lytle, 2011). As Light (1997) states, “Communication is the essence of human life.”

The Role of Trauma Intersection

Trauma fractures comprehension as a pebble shatters a windshield. The wound at the site of impact spreads across the field of vision, obscuring reality and challenging belief.

-Jane Leavy

When considering language deprivation in immigrant and refugee children, we again must look at the deaf population specifically. Perception of deafness in other countries varies, but deaf individuals from low-income countries typically experience their identities being defined by their limitations (Earth, 2013). While the focus of this work is on DELL students with trauma, it is not a definitive assertion that a child within this population will have experienced trauma nor language deprivation.

The overall experience of childhood trauma can affect the brain in a variety of ways with either temporary or long-lasting alterations occurring in the amygdala, hippocampus, and prefrontal cortex (see Bremner, 2006; Cassiers et al., 2018; Lee, et al., 2015). According to Bremner (2006), these three sections of the brain control one's emotions, instincts, memory, and impulses. All three parts function to regulate stress, but once trauma occurs, difficulties in executive functioning, hypervigilance, self-regulation, memory, and social skills emerge.

A compilation of symptoms and outcomes from the trauma associated with both migration and language deprivation is provided. The table is composed of data referenced in this text (see Table 1). These symptoms may present themselves within one DELL

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student. Interpreters that work with these students may need to adjust their approach to enable communication for learning.

Table 1

Trauma symptoms from Language Deprivation Syndrome and Migration

Trauma Symptoms from LDS	Trauma Symptoms from Migration
<ul style="list-style-type: none">● Difficulty paying attention● Difficulty with self-regulation● Inability to plan ahead● Poor social/emotional skills● Difficulty with abstract concepts● Behavioral Problems● Limited Vocabulary● Memory impairment● Difficulty understanding time● Difficulty reasoning or problem solving● Difficulty understanding cause and effect	<ul style="list-style-type: none">● Difficulty paying attention● Difficulty self-regulating● Inability to plan ahead● Dissociation● Overstimulated Easily● Anxiety● Depression● Guilt/Shame● Self-Harm● Difficulty reasoning or problem solving

Note. Data in this table was compiled by the researcher. Works of Gulati, 2018, and Hall et al., 2017, are used in reference to trauma symptoms derived from LDS. Bremner,

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2006, and Martinez et al., 2019, published works with information used to display the trauma symptoms from migration.

The Role of Strategies

Two studies look specifically at strategies of ASL interpreting for DELL students: Fichera-Lening (2016) and Fischbeck (2018). Wattman (2019) offers strategies for interpreting for language deprived adults. These strategies all provide a solid foundation to the work presented in this paper. Continued study of this topic could further explore the effectiveness of these strategies.

Fichera-Lening (2016) surveyed 19 participants. The survey consisted of 36 questions in which participants responded by selecting one point on a five-point Likert scale. The survey questions were designed to gather information based on the research questions: “How does the documentation status of alingual deaf immigrant children affect the work practices of ASL/English interpreters? In what ways do collaborative practices with other interpreters or peer professionals impact the work practices of ASL/English interpreters working with alingual deaf immigrant children?” The findings from this study revealed the need for educational interpreters to utilize the following;

- Prep time
- Collaboration
- Third language acquisition
- Cultural awareness

Fischbeck’s (2018) approach varied in method but produced similar findings. She interviewed four interpreters who worked specifically with deaf immigrant students and

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focused on their decision-making processes. The data was collected to answer several themed questions: “What are current strategies educational interpreters use in the K-12 setting when working with immigrant and refugee DHH students? How do the interpreters in these settings make decisions to apply said strategies? What are the perceptions of the EI’s work with DHH refugee and immigrant students”? The following are themes for strategies that emerged from the data.

- Collaboration
- Language modification
- Establish rapport with student
- Comprehension checks
- One-on-one work
- Foster self-esteem
- Peer connections
- Cultural awareness

Finally, Wattman (2019) created strategies based on her own experience as a certified legal interpreter with extensive training and significant experience. She, along with a fellow certified interpreter worked on a specific case with a language deprived deaf adult and documented the experience. Speech-language pathologist and creator of Language First, Sanzo (n.d.), took these strategies and configured them into her work with language deprived DHH students. The following list is the compilation created by Sanzo of Wattman’s original work:

- Visuals: Pictures, photographs, drawings, role-play.

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- Simple language as foundation: Build from simple language to abstract concepts.
- Check for voicing accuracy: Paraphrase their story back to them to ensure your understanding was correct
- Know common errors: Remain alert for common errors that are typical of LDS.
- Break-downs: “Unpack” complex content into smaller simpler parts
- Anchor: Repeat previously stated content.
- Escort role: Describe the progress of the interpreting process itself in the third person.
- CDIs: Certified deaf interpreters are better able to modify language and may be able to produce the message more effectively.

The tables and information gathered offers a window into the necessary elements that allow EI's to successfully interpret for DHH immigrant and refugee students in educational settings. The findings of Wattman (2019), Fischbeck (2018), and Fichera-Lening (2016) align with the findings from this research.

Chapter 3: Methodology

Research Focus

This research was conducted to determine common strategies that current interpreters use for communication with DEAF students. Previous researchers administered detailed interviews and thorough surveys of interpreters who work with these students (Fichera-Lening, 2016; Fischbeck, 2018). This research intended to take a step forward and implement the strategies into the interpreter's personal work to determine effectiveness of strategies. Due to constraints outside of the researcher's control, the data collection method had to be modified.

Therefore, a mixed method approach was taken using surveys, frequency analysis to portray data, and journaling used for reflection of pertinent experiences (Hale & Napier, 2013). The research will highlight possible strategies for interpreters to use and address necessary changes to be made for continued research.

COVID-19 Limitations

COVID-19, a pandemic virus that spread through the United States, forced schools to close their doors in 2019. To continue in education, schools began holding classes virtually to enable students to remain safely at home. Each state determined their own respective teaching platforms and developed individualized rules for online learning. The school referenced in this text, gave high school students permission to keep their

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cameras turned off during instruction, resulting in teachers who never saw the majority of their students for the duration of the school year.

The original intention for this Action Research was to collect common strategies, implement those strategies into the interpreter's work with DELL students, and determine effectiveness through questions and conversation with the students. Effectiveness was set to be more thoroughly determined through grades and private discussion with the teacher and Teacher of the Deaf. Interpretations were recorded for further analysis. As strategies were implemented into the interpretation, it became apparent that it would be challenging to measure the effectiveness of the chosen strategies due to the reduced interaction and visibility of the students. In typical classroom settings, an interpreter watches the student for visual reactions to gauge their comprehension. Furrowed brows or a head tilt may imply confusion, in which the interpreter could re-iterate or change their approach. Glazed over eyes could mean dissociation or eye fatigue. A student's reaction to the interpretation guides the interpreter's decision-making. With no access to feedback from the students to the interpreter or teacher, the analysis of the videos provided limited to no relevant information.

Design

To garner a collection of as many interpreter responses as possible in a limited amount of time, a survey was chosen as a method for this research, due to the ease of distribution and soliciting participation. The survey (see Appendix A) was created by the researcher using Google Forms which created a link to provide to participants. Informed consent (see Appendix B) for the survey was requested on the first page of the online

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survey. Participants were informed that the survey was optional and any personal information would not be shared. The results from the survey were saved, stored, and secured by the researcher.

The survey sought interpreters with experience in the K-12 setting interpreting for DELL students and allowed for interpreters to self-report. The only identifying marker was an email address, used as a signature, for consent. The link to the survey was posted strategically to social media pages created for practitioners of educational interpreting as well as general interpreting. Additionally, the survey was shared with specific interpreter practitioners known to the researcher via personal email.

Eight questions were presented in an open-ended format prompted by the key research question: What strategies can interpreters use to aid in communication with deaf and hard of hearing immigrant or refugee students. The survey was limited to eight questions to elicit a high response rate. There was a total of 37 responses over a three-month period.

Data Analysis

Qualitative methods were used to analyze the collected survey data. All responses to questions were uploaded to Google Sheets for a clear side by side display of the data. Open-coding in the grounded theory method was used to categorize responses into themes. This method is used by finding common properties to group concepts and ideas into categories (Strauss & Corbin, 1990). Themes were identified and frequency was calculated and then reflected in raw numbers and percentages. The strategies employed

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by interpreters are recorded with the most commonly utilized strategies set at the top of the table and listed in order of descending frequency.

Additionally, the researcher documented personal experiences while implementing these strategies. However, the resource was inapplicable in this research in most regards, as stated earlier. However, one instance of personal experience has been included, as it was the one interaction to occur face-to-face. This experience is documented in Chapter 4 of this paper.

Chapter 4: Findings

Strategies

Data were collected to determine common strategies among K-12 ASL Interpreters who currently work or have experience working with DELL students. This chapter presents the findings gathered from a survey of 37 professionals. Results align with strategies determined by previous research, but also provides additional options for interpreters.

All responses were comparatively analyzed for common theme strategies using the grounded theory technique. See Table 2 for expanded explanations of strategies.

Table 2

Strategy Survey Results

Count	Percentage	Strategy	Definition
22	59.5%	Visuals	Utilizing pictures, videos, objects, drawings, posters, or manipulatives used when representing an idea or concept. Writing vocabulary words on a white board allow for connection between the English word and the ASL sign (Shabiralyani, et al., 2015; Wattman, 2018).

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16	43%	Expansion	Collecting additional background information surrounding a subject matter to help familiarize the student with a concept. This may require one to provide a more detailed explanation, providing examples, or defining vocabulary (Sanzo, n.d.; Wattman, 2018).
11	30%	Language Modification	Adjusting interpreting based on student language level or subject matter; breaking information down into simpler parts and focusing on concrete concepts. This may feel as if you are omitting information, but more information can be provided at a later time once the concept is understood (Schick, 2007; Wattman, 2018).
10	27%	Collaboration/ CDI	Utilizing Certified Deaf Interpreters, teachers, peer interpreters, experts; working with Deaf professionals who can better explain or teach at a foundational level, working with other professionals to determine appropriate language needs and strategies (Caselli, et al., 2020; Wattman, 2018)
10	27%	Scaffolding	Using the student's prior knowledge and understanding to build upon and add new information (Wattman, 2018). It may also be helpful

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			to use personal experiences of the student to help solidify understanding.
9	24%	Comprehension Checks	Asking questions or recognizing body language and facial expressions to check for understanding (Wattman, 2018).
8	22%	Modeling	Describing then doing; showing the instructions or action. In modeling, one does not use a significant amount of language, but focuses on what the student should specifically do (Wattman, 2018).
8	22%	Student Orientation	Familiarizing oneself with a student's baseline (IEP) and background; building rapport (Schick, 2007).
8	22%	Reiteration	Repeating or showing in an alternative way, a word, phrase, or concept (Sanzo, n.d.).
7	19%	ASL Linguistic Features	Utilizing 3-D space, classifiers, mouth morphemes; “letting go of the English” to focus on concepts (Wattman, 2018).
6	16%	Native Language Use	Utilizing a student's first language to facilitate second language acquisition (Sanzo, n.d.).
6	16%	Cultural Awareness	Being cognizant of culture/background and implications that lead to appropriate and respectful

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			communication, also taking into account words or phrases that may trigger trauma (Wattman, 2018).
5	13%	Conversation	Engaging in a natural back and forth conversation to model communication, often on a non-academic topic This can also help establish or build rapport (Sanzo, n.d.).
5	13%	Gestures	Using well-known movements that convey meaning, such as a thumbs up (Wattman, 2018).
4	10%	Reduced Rate	Slowing the rate at which signs are produced; slowing or reducing delivery of fingerspelling is especially helpful (Sanzo, n.d.).
4	10%	Sandwich Vocab	Fingerspelling a word, showing the sign, and then fingerspelling it again. It is also helpful to write out important vocabulary words to connect the written English word to the sign (Sanzo, n.d.).
2	5%	Pre-exposure	Working with the student before a lesson to introduce concepts and vocabulary. Should be performed with teachers' knowledge and guidance (Schick, 2007).
2	5%	Tutoring	Initiating one-on-one work between student and interpreter to expand upon concepts, ideas, and

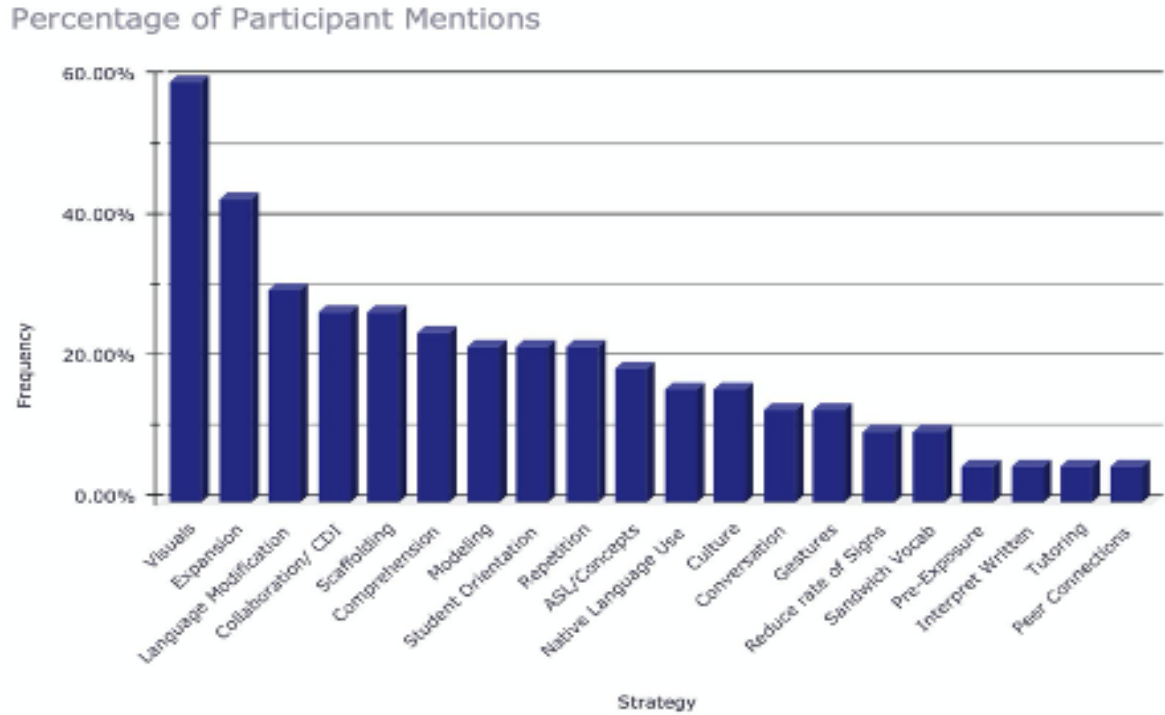
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			lessons already taught. Should be performed with teacher's knowledge and guidance (Schick, 2007).
2	5%	Interpret Written English	Interpreting worksheets, closed-caption videos, power-points, tests, etc (Schick, 2007).
2	5%	Foster Peer Connections	Aiding in the education of sign language or encouraging interactions with other students (Sanzo, n.d.).

The frequency of strategies was analyzed to determine which were most commonly used (see Figure 1). Figure 1 depicts the same information provided in Table 2 but offers a different view of the data.

Figure 1

Strategy Survey Percentage Result



Journal Reflection

While conducting this research, the researcher documented the experience using journaling practices. One particular event has been chosen to be detailed. The goal of sharing this experience is to provide support of the possible effectiveness of strategies used when interpreting for a DELL student. To protect student identity and interpreter confidentiality, this journal experience has been greatly redacted and paraphrased:

One particular high school DELL student was required to take a standardized math test at the end of the school year. One of the interpreters who worked with the

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student that school year was assigned to interpret the cumulative test. The EI elected to transliterate rather than interpret and followed typical English word order, although they remained conceptually accurate with their signing choices. Vocabulary words were fingerspelled and proponents of ASL were limited because of the visual nature of the language. Efforts were made to eliminate possible perceptions of cheating, as at times, those unaware of the language may assume an interpreter is providing answers because signs are visual. Results showed the student failed the test. The interpreter assessed that the chosen language modality was not beneficial to the student and may have contributed to the failing grade, although there is insufficient evidence to prove either case.

The student was approved to retake the test. Before the retake, the Teacher of the Deaf and the ASL interpreter collaborated to propose alternative strategies to best support the student's language needs. It was decided that the interpreter should focus on use of space, limit fingerspelling, and visually depict concepts. Results showed the student received a passing score on the test. There could be any number of causative factors that resulted in the student's success the second time, but it seemed clear to the interpreter that the modified linguistic approach during the retake contributed to the student's understanding of the material.

Included below are two examples of questions from the standardized math test provided for context. These examples were retrieved from practice questions available to the public. The purpose of these examples is to showcase the nature of this particular kind of test which utilizes complex linguistic features to guide one to answering mathematical computation. Consider a view through the lens of a student who is not proficient in the

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English language and is seeing the interpretation through an English signed system.

These examples will resonate deeper to those who have experience interpreting.

1. Consider the following arguments; If the first two statements are true, in which argument is the 3rd statement an incorrect conclusion? (SOL Practice, ND).

A) 1. If John studies, then he will pass the test.

2. If John passes the test, then he will not be grounded.

3. If John is grounded, then he will study.

B) 1. If it rains, then we will stay inside.

2. If we stay inside, then we will play games.

3. If it rains, then we will play games.

C) 1. If we win the game, then we will win the championship.

2. If we win the championship, then we will win a trophy.

3. If we do not get a trophy, then we did not win the game.

2. Let p represent: *two angles are vertical angles*

Let q represent: *the angles are congruent*

What is the symbolic representation of the following statement?

If two angles are congruent, then the angles are vertical angles.

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- A. $q \rightarrow p$
- B. $p \rightarrow q$
- C. $\sim q \rightarrow \sim p$
- D. $\sim p \rightarrow \sim q$

(SOL Practice, n.d.)

An interpreter should understand that not all strategies will be effective for all students, as each student manages trauma, language, and stress uniquely (Caselli, 2018; Anderson 2020). In the personal account detailed above, the interpreter was able to determine effective strategies using a year-long rapport, comprehension checks, and reactive facial expressions from the student. If one strategy was ineffective, another was presented. With continuity, interpreters have the opportunity to learn the specific needs of the clients with whom they work with (Schick, et al., 2005), and will easily be able to determine which strategies will be helpful based on their knowledge of the student's needs and background.

Chapter 5: Conclusion

Student-Interpreter Connection

During the research period, students attended virtual school. Rather than report in person, students logged into an online platform from their homes. They participated via a virtual classroom. They could see the teacher, but, as previously noted, the students themselves were not required to keep their cameras enabled. The student the interpreter was assigned to work with rarely had their camera on and the interpreter's inability to access visual feedback from the student presented challenges. There was no way to determine the effectiveness of the interpreting, including the implementation and adaptation of strategies throughout the communication. While this was a set-back for the initial proposed methodology, it did allow for findings that support the need of direct contact (virtually or physically) during interpretations with students. When interpreting for a DELL student, this experience alludes to the blatant necessity for an interpreter to be able to visually assess the student's comprehension while providing linguistic access.

Implications

When we consider trauma that can occur in students who have undergone the migration process and experienced language deprivation, it becomes clear why interpreters of DELL students would benefit from specialized training. More so, it is vital to remember the importance of collaboration with a CDI. Their unique experiences and

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perspectives allow them to identify and connect with these students in ways that hearing interpreters cannot (Caselli, 2020).

The literature suggests that student interpreters must make themselves aware of the possible trauma in students and make appropriate adjustments when needed. If a student dissociates during a lesson as a symptom of trauma, an interpreter may be unaware of the need to tailor their approach. One must know how to gently regain attention or paraphrase missed content if necessary. If the student gets easily overwhelmed (a trauma symptom), effective strategies utilizing a smaller signing space or reducing signing pace can be enacted. It is within the role of an EI to encourage independence within students as they age, however trauma must also be considered and weighed. Trauma is important context that may inform the interpreter's work.

Future Research

The data collected from the survey was limited due to a variety of reasons. Firstly, the survey was distributed through social media, specifically Facebook and Instagram. This limits the number interpreters that had access to the survey. Secondly, the questions within the survey were all open-ended questions which resulted in the researcher's bias of assessing and categorizing themes. Furthermore, there was a single interpreter who participated in the implementation of the strategies, resulting in further bias of success. A larger sample size leads to a higher level of confidence as well as ease in replicating the study for validity.

Future research would benefit from offering a variety of question styles, such as multiple choice, Likert scales, ranking, or dropdown questions. It should also be noted

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that an additional level of bias is included, as the researcher is an EI and works in the deaf community.

Future research on this topic is highly recommended and would greatly benefit the field, as current research is minimal. There is a strong need for research with a focus on interpreting for traumatized students. The interpreting field is ever evolving and the need for innovative research is never complete. There is still much to learn regarding students, trauma, strategies, and interpreting. Through continued research, we will be able to piece together best practices for these interpreters and implement those practices into specialization and classification.

In closing, as the researcher and interpreter in this study, I feel it is important to acknowledge my privilege. I am a guest within this community, and it is my honor to work alongside the Deaf and Hard of Hearing individuals who have paved the way for me to be here. As an educational interpreter, I notice and support the absolute need for Deaf adults to work with deaf students, and if ever given the opportunity, I will always stand aside and allow for those more qualified than me to do their work.

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Appendices

Appendix A

Survey Questions

1. Please list your credentials as it relates to your profession.
2. How many years have you worked as an interpreter professionally? Please specify how many were spent in a K-12 setting.
3. In your work in the K-12 setting, how many students did you interpret for that were either first or second generation immigrants? What state(s) were/are you working in?
4. Of those students listed in your previous response, how many would you professionally suspect as having limited English proficiency (LEP)? Please see LEP definition above. Please respond with "all", "none", or "some".
5. When interpreting for students that are immigrants, do you feel you tend to approach your work with a different mindset than if you were interpreting for an English proficient student? Please explain.
6. Recognizing that all students are individuals, please do your best to rank what you would consider to be the top three strategies to use when working with immigrant students that are LEP.
7. Do you feel your ITP (Interpreter Preparation Program) prepared you for working with these students? Please explain.
8. Please feel free to include anything else you feel could be pertinent to this study. If you have nothing else to add, please write N/A.

Appendix B

Informed Consent

Hello, colleagues and friends.

My name is Anna-Katherine Jacobs. I am a student at Western Oregon University, pursuing a Master of Arts in Interpreting Studies degree.

I am researching interpreting strategies to use when interpreting in American Sign Language for immigrant students with limited English proficiency. The survey should take about 10 minutes to complete. I am seeking interpreters with experience in the K-12 setting interpreting for immigrant students in ASL. Your participation in this survey is voluntary. There is no penalty if you choose not to participate or to withdraw from the study at any time. If you choose to withdraw from the study, all data collected from you will be destroyed through deletion of files. You must be 18 or older to participate in this study. There are no foreseeable risks or discomforts to your participation. Your responses to this survey will be anonymous. Understand that I will use this information as data in my action research project. If you have any questions concerning the research study, please contact Anna Jacobs. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Institutional Review Board at (503) 838-9200 or irb@wou.edu. If you consent to taking this survey and meet the criteria to take it,

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please enter your email address and continue to Section 2. Thank you for your consideration.