1

ASL INTERPRETING FOR DWD INDIVIDUALS

American Sign Language Interpreting for d/Deaf Individuals with Disabilities:

A Qualitative Study and Practical Guide

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Abstract

American Sign Language (ASL) interpreting for d/Deaf individuals with disabilities (DWD) is a complex task, and one which lacks an adequate research-base to inform best practices. Using the foundation of existing literature on closely related topics such as the field of ASL interpreting, educational interpreting, education of DWD individuals, and research about specific disabilities occurring with d/Deafness, I compiled a literature review and created a theoretical conceptual framework concerning this topic. In further investigation of this subject, I also conducted a qualitative study through online questionnaires sent out by email to ASL interpreters located through snowball sampling. The data collected included participants' responses to open-ended questions about strategies used, and unique challenges and rewards faced, when working with this unique population. Data was analyzed through content analysis to uncover primary themes and trends prevalent throughout participants' responses, in order to better understand the practical experiences of ASL interpreters working with DWD individuals. The major themes discovered were individualization, flexibility, and collaboration, three concepts that largely fit with existing practices in the fields of special education and ASL interpreting. This research positively impacts the field of ASL interpreting by beginning to establish a framework for further research on this topic, as well as by laying the foundation for a guidebook of suggested practices for interpreting for d/Deaf individuals with various disabilities, drawn from existing literature in the fields of special education and ASL interpreting and from primary research.

ASL Interpreting for d/Deaf Individuals with Disabilities: A Practical Guide Background

To begin to understand the complexities of interpreting for d/Deaf individuals with disabilities, it is crucial to begin by establishing and explaining the terminology used throughout this research. American Sign Language (ASL) interpreting refers to the process of bridging the communication gap between hearing and deaf/hard of hearing consumers by changing one language into another language, while maintaining the content and spirit of the original message. There is often distinction made between interpreting and transliteration; moving from one language to another language (i.e., ASL to English) versus switching from the one language to a different modality of the same language (i.e., Signed English to English) (Humphrey & Alcorn, 2007). This distinction is important to note; however for the context of this study, ASL interpreting will be viewed in broad terms to include all of the process of communication facilitation between d/Deaf or hard of hearing and hearing consumers, regardless of consumer's communication preference. Additionally, it is important to establish the differences in views of deafness between hearing culture (or the medical perspective) and the Deaf culture perspective. The medical view of *deafness* often held by the hearing community is that deafness is a disability or deficit, as expressed by terms like *hearing impaired*. The Deaf community, however, views Deafness (represented by the capital letter "D") as a linguistic and cultural minority. Deaf culture often places more of an emphasis on developmental experiences such as schooling, Deaf family members, and exposure to sign language (Humphrey & Alcorn, 2007).

Rationale for Terminology

In this research, the terminology chosen is *d/Deaf individuals with disabilities* (DWD), a term likely unfamiliar to many readers. There has been much debate over the years on which

label to use for this unique population of individuals (Beams, 2014; Guardino & Cannon, 2015; Leppo et al., 2014). One term used is 'Deaf Plus' which is used to indicate the child's hearing status as well as additional conditions. This description seeks to give a positive label, that focuses on strengths and unique abilities of this population, rather than on disabilities (Beams, 2014). Similarly, other terms such as 'Deaf/Hard of Hearing PLUS' (Wiley et al., 2019) and 'students who are deaf and hard of hearing plus (SDHH+)' have been used as a way to acknowledge the needs of this group of people while upholding an optimistic perspective for future growth and development. Paul (2015) chose to use a longer label, 'd/Deaf and Hard of Hearing with a Disability or an Additional Disability,' in an effort to be as inclusive as possible and respect a variety of perspectives. Guardino and Cannon (2015), however, opted for the term 'D/deaf and hard of hearing with a disability/disabilities' (DWD). The researcher has chosen to use a similar term, d/Deaf Individuals with Disabilities (DWD) as a way to integrate perspectives while respecting the Deaf culture view of Deafness as a linguistic minority rather than a disability and conveying the complexity and challenges associated with working with this population.

Prevalence

The population of d/Deaf individuals who have a disability or disabilities that occur comorbid to d/Deafness has been estimated to be around 40% (Beams, 2014). This prevalence rate is significantly higher than the general population, as are rates for specific types of disabilities such as intellectual disability (8.3% vs. 0.71%) and blindness/vision impairment (5.5% vs. 0.13%) (Borders et al., 2017). Multiple researchers note that the combination of Deafness with disabilities such as intellectual disabilities (ID), Autism Spectrum Disorder (ASD), or physical disabilities cause compounded challenges that are multiplicative rather than

additive in nature (Borders et al., 2017; Jackson et al., 2015; Luft, 2015; Mauk & Mauk, 1993). With the high prevalence rate and added complexities associated with this population comes the necessity for qualified, skilled professionals, who are able to implement evidence-based practices when working with these individuals. The following research seeks to address this need by finding and filling gaps in the existing literature.

Literature Review

The field of ASL Interpreting has a very limited amount of existent research overall as it is a relatively new, and relatively small discipline. In an effort to understand more about ASL interpreting for Deaf individuals with disabilities (DWD) the researcher began looking for existing research on this topic and found very little information. Therefore, the researcher widened the scope of the literature review to related topics that would overlap and hopefully engender a richer understanding of the original research topic. These areas of research included ASL interpreting in general, ASL interpreting in specifically educational settings (as many interpreters may encounter DWD individuals in this setting), the education of DWD individuals, and general research on DWD individuals. Again, there is a significant focus on the educational setting because the volume of research is much greater for students who are DWD than adults who are DWD. Through the research found in these various related fields, the researcher's focus remained on ASL interpreting for DWD individuals, and any information that could be synthesized or correlated to better understand this principal topic.

An Overview of ASL Interpreting

In coming to an understanding of practices used or strategies employed in working with DWD individuals, it is vital to first understand the process of interpreting, and the role of interpreters in general and educational settings. According to Humphrey and Alcorn (2007),

"interpreters are bilingual-bicultural professionals who convey equivalent messages between two languages and cultures, while being sensitive to the environmental factors which foster/impede the message, and conduct him/herself in a professional, ethical manner" (p. 153). ASL interpreting is a complex profession that is guided by standards of ethical and professional conduct. By way of overview, ASL interpreting involves 1) taking in the source language, 2) analyzing the deep structure meaning of the source message, 3) applying a contextual or schema screen to understand the interpersonal dynamics of the situation, 4) formulating/rehearsing equivalent message, 5) producing the target language interpretation with appropriate linguistic and cultural adaptations, while monitoring comprehension, output, contextual changes, and making corrections as needed. (Humphrey & Alcorn, 2007).

Ethics of ASL Interpreting

ASL Interpreters are expected to uphold the standards expressed in the NAD-RID Code of Professional Conduct (CPC) regardless of setting. The tenets of the CPC cover the topics of confidentiality, professionalism, conduct, respect for consumers, respect for colleagues, ethical business practices, and professional development (Registry of Interpreters for the Deaf, Inc. [RID], 2005). While the process of interpreting is largely the same regardless of setting, there are some important differences in what is considered ethical conduct by setting, particularly in educational settings. The Educational Interpreter Performance Assessment (EIPA) has created a distinct set of ethical guidelines that are adhered to in the educational setting. These ethics will be discussed briefly in later sections.

A relatively large amount of research has been done on the topic of educational interpreting, and it is worth considering, to come to a more full understanding of how the fields of Special Education and ASL Interpreting interact, in order to gain more knowledge and insight

into how ASL interpreting may function with DWD individuals or students. There is much debate over the role of an ASL interpreter in the educational setting particularly relating to what duties the interpreter may have outside of communication facilitation and how attached or dependent upon the interpreter the student becomes. Brown and Schick (2011) argued that educational interpreters have a completely different role than general interpreters based on the setting they work in. According to Brown and Schick (2011), community interpreters focus on the autonomy of the Deaf individual and on accurately conveying the message while educational interpreters have a primary focus that mirrors that of other educational professionals—to maximize the student's educational opportunities and to serve as a language model for students. Anita and Kreimeyer (2001) explored this topic through interviews, observations, and field notes, noting distinctions between the 'full-participant interpreter role' and the 'translator or mechanical role.' Interesting differences in perceptions were noticed depending on whether the ASL interpreter's job title was 'interpreter' or 'interpreter/aide' (Anita & Kreimeyer, 2001). Most authors agree that interpreters' primary role is interpreting between sign and speech with secondary roles possible. These secondary roles may include clarifying teacher directions and instructions, facilitating peer interaction by teaching sign to hearing students, tutoring the Deaf student, and keeping the teacher/other educational professionals informed of the Deaf child's progress (Anita & Kreimeyer, 2001).

Interpreters and the IEP

The field of Special Education includes deafness/hearing impairment in their list of disabilities established by the Individuals with Disabilities Education Act (IDEA). IDEA is a law that authorizes grants to states and educational agencies which outlines terminology and definitions relevant to special education. Part A defines a child with a disability as a child "(i)

with intellectual disabilities, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance... orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities; and (ii) who, by reason thereof, needs special education and related services" (IDEA, 2004, Section 1401 (3) (A)). Under this framework, deafness is viewed as a disability in order to provide services, such as an ASL interpreter, to enable the child to succeed academically. Students who meet the criteria for special education services each have an Individualized Education Program (IEP). The IEP is vitally important in determining the services and supports that the student with disabilities will need to reach his/her maximum potential. The IEP includes the child's Present Levels of Academic Achievement and Functional Performance (PLAAFP) goals for the year stated in observable and measurable terms, a statement of the special education and related services that will be provided, and other important individualized information (IDEA, 2004). The educational interpreter is considered a related service provider according to IDEA definitions. While they are not legally obligated to be involved in the student's IEP meeting, it is considered best practice to have professionals who know the child well involved in this meeting, and the educational interpreter would, in most scenarios, fit this description based on their unique understand of the child's language and communication skills (IDEA, 2004; Schick, 2007). Often, however, educational interpreters are not sufficiently involved in the IEP process. Hardin (2011) suggested that the perception of ASL interpreters from teachers and school staff is largely their own responsibility: "Each interaction we have with school staff is an opportunity to show them we are a professional and someone who has an important perspective" (Hardin, 2011, p. 32). Boam (2018) echoed this sentiment by citing interviews he conducted with various school interpreters which demonstrated a definitive lack of

knowledge of laws governing their job/role, little to no access to IEPs/IEP meetings, and non-compliance with IEP regulations from such a lack of understanding and access.

Whether the educational interpreter actually attends the IEP meeting or not, most research and practice agree that they are still part of the team responsible for implementing the IEP and monitoring student's academic progress. Due to the differences in role from general interpreting settings (e.g. business, medical, legal, community event, etc.) the Educational Interpreter Performance Assessment (EIPA) created its own set of ethical guidelines. EIPA states that educational interpreters, "as an adult in a student's educational life... cannot avoid fostering or hindering development" (Schick, 2007, p. 2). As Brown and Schick (2011) stated, educational interpreters serve as a language model for students, whether intending to or not, meaning that their competency is of utmost importance to the student's development.

Issues of Quality and Competency

The quality and competency of educational interpreters has historically been a challenge. Few interpreter training programs have specializations in educational interpreting, yet, as Jones (2005) noted, "as language competencies are a prerequisite to interpreting proficiency, qualified interpreters are a prerequisite to accessibility" (p. 124). This correlates with the NAD-RID Code of Professional Conduct, which states in Tenet 2.0 that interpreters must possess the professional skills and knowledge necessary for the specific interpreting situation (RID, 2005). Qualified interpreters, however, are a starting point for, rather than a guarantee of, full inclusion of deaf students. To extend this concept to the current research topic, it is even more of a challenge to find educational interpreters who are qualified or competent for working with DWD individuals, but it is arguably even more vital for these students with additional accessibility challenges to be supported by competent professionals who will effectively reinforce communication.

The Education of DWD Individuals

In the largely unsuccessful attempt to find existing research about ASL interpreting for Deaf individuals with disabilities, the researcher found information regarding the education of DWD individuals, from an educational professional perspective.

Educational Placements

Some such research focused on educational placement for DWD individuals. The guiding principle for placement decisions for this population should be the principles of Free Appropriate Public Education (FAPE) and the Least Restrictive Environment (LRE) as established by the Department of Education and IDEA (2004). Placements must meet state educational standards and must meet the requirements of the student's IEP through special education and related services, where students are educated with their non-disabled peers to the greatest reasonable extent (IDEA, 2004). This way of defining LRE has caused an increase in Deaf students being educated with hearing peers in mainstream or general education settings, which thereby has increased the need for ASL interpreters in the school systems to provide communication access (Guardino & Cannon 2015; Rosen, 2006). The official recognition of ASL as a possible primary language for deaf students is a relatively recent development, added in a 1999 revision to IDEA (Rosen, 2006). Due in part to how recently these changes have occurred, the supply of competent, qualified, educational interpreters has not kept up with the growing demand, resulting in insufficient educational access and inequalities in educational achievement. Additionally, there is much debate over what is truly an LRE for students who are d/Deaf, as mainstream "inclusion" settings do not always provide adequate access to educational content or to socially important interaction. This means that separate d/Deaf education programs or schools, may indeed be less restrictive by allowing more natural communication.

This issue is exacerbated when d/Deaf students also have a disability. DWD students often face a tension between placement in a program designed for d/Deaf or hard of hearing students which may or may not meet their other exceptional disability-related challenges, and placement in a program designed for students with disabilities that may or may not have supports or structures that are effective for a child who is d/Deaf, as noted by Beams (2014):

Programs for the deaf and hard of hearing often do not have staff with expertise needed to address a child's other issues, while programs focusing more on physical or cognitive issues often do not have professionals skilled in communicating with deaf and hard of hearing children. (para. 6)

Historically, Deaf schools would not allow students with multiple disabilities to attend, causing an even higher percentage of students who are DWD to be educated in mainstream settings (Ewing & Jones, 2003). Some Deaf Education programs do, however, allow for the integration of DWD students, as shown by two contrasted experiences of teachers in a phenomenological study by Musyoka, Gentry, and Bartlett (2015). Ms. Selena preferred for the DWD students to be integrated with typically developing deaf students allowed for more ASL use but noted challenges with IEP goals, while Ms. Tasha preferred separating DWD students from Deaf students to allow for more targeted instruction (Musyoka et al., 2015). A continued trend of more inclusion and mainstreaming (Nelson & Bruce, 2019), whether desirable or not, means that educational interpreters will likely encounter more d/Deaf students with disabilities, even if they did not plan to work with such a population. Therefore, training and resources for interpreting for this population will become increasingly important to aid student success.

Educational Philosophies and Models

Some research has been done relating to different teaching philosophies and frameworks used when working with this population. This information, while somewhat peripheral, is relevant to ASL interpreters working with DWD students, because it enables them to understand the framework through which the students are being taught/supported, as well as providing context for how the interpreter is to be incorporated into the classroom. Being knowledgeable about how these philosophies drive interventions will allow the interpreter to conform to the pre-existing structure of the classroom and best support the student(s) for whom they are facilitating communication.

Transdisciplinary Collaboration. A theme of collaboration runs throughout much of the research relating to educating or working with DWD individuals. Ewing and Jones (2003) outlined three models often used in educating DWD students: multidisciplinary, interdisciplinary, and transdisciplinary. The multidisciplinary model involves various professionals working with a child/family individually often resulting in fragmented services instead of full partnerships. The interdisciplinary model is more commonly known and used. It involves sharing information among team members and often uses a 'pull-out' model for services. Finally, the transdisciplinary model, which is most highly recommended by Ewing and Jones (2003) involves sharing information and skills across disciplinary boundaries, including both the primary facilitators and consultants for services in collaborative planning. This approach has been found successful for early intervention as well (Jackson et al., 2015).

While not all research on this population refers to collaboration with the same terminology, it is clearly a common theme. Research from over two decades ago mentions the need for 'team-centered evaluation and educational services' for this population (Mauk & Mauk,

1993). A study of teacher's experiences with this population showed the impact of a lack of collaboration with teachers and other members of the education team, noting that the DWD student's needs were being ignored because of lack of collaborative planning (Muysoka et al., 2015). Over and over again collaboration has been identified as a critical practice for professional who support DWD students, in education, transition services, and meeting their various other complex needs (Luft, 2015; Nelson & Bruce, 2019; Wiley et al., 2019). It is impossible and irrational for educational professionals (e.g. teachers or ASL interpreters) to be an expert in every combination of disabilities they encounter, therefore collaboration is vital (Jackson et al., 2015). Much of the work done in this field such as creating and adapting curriculum materials or planning intervention strategies for this population relies on partnerships with professionals in other disability fields. Crossing disciplines to share strategies and resources is indispensable when supporting DWD students.

Person Centered Planning. Another major theme in the existing literature is that of individualization and person-centered planning. In this framework, the individual child is the focus; his or her strengths, abilities, motivations, as well as environmental and instructional preferences (Ewing & Jones, 2003). This strategy touches much of the special education field, so by logical extension it is useful in the field of DWD learners. Borders, Bock, Probst, and Kroesch (2017) coupled the person-centered planning approach with a lifespan perspective. The lifespan perspective entails teachers of DWD students considering how current behaviors will impact perceptions of the student as they become an adult and societal expectations change (Borders et al., 2017). The person-centered planning (PCP) aspect that aligns with this involves creating "a long-term vision and action plan for the student that centers around the student's interests, strengths, and needs" (Borders et al., 2017, p. 8). PCP is closely aligned with a

strengths-based approach, meaning that the educational professional focuses on the child's individual needs from a positive perspective that emphasizes the child's relative strengths. Focusing solely on the student's challenges or disability category may cause professionals to miss valuable insight into how that student learns and what accommodations will be most beneficial (Beams, 2014; Leppo et al., 2014). This idea was quantified in a study by Leppo, Cawthon, and Bond (2014), which sought to understand the use of various accommodations by students who are deaf and hard of hearing plus (SDHH+). Findings from this research demonstrated that it was not possible to distinguish between SDHH and SDHH+ simply though an analysis of what accommodations were used, supporting the idea that there are many individual differences within the population of DWD students, with a wide variety of needs and supports. The results did, however, suggest a significant difference between SDHH+ with a learning disability and SDHH+ with attention deficit disorder (ADD) or attention deficit hyperactivity disorder (ADHD): "Therefore, it is possible that students with the same constellations of disabilities may use very different accommodations" (Leppo et al., 2014, p. 190), hence the need for individualization and person-centered, rather than label-centered, planning (Enterlin et al., n.d.).

Understanding the uniqueness and diversity of each DWD student is relevant for interpreters working with this population, as it is important for them to know how they and other professionals view the population of DWD individuals, and how they plan to address their needs. Also, it is valuable to note that the target language product may need to be modified significantly between different clients, even if they have the same 'constellation of disabilities.'

Overview of Disability-Specific Strategies

Some research has been done with emphases on particular disabilities that occur comorbid to Deafness. There exists one source focused on the topic of educational interpreting for students who are DWD (Enterlin et al., n.d.). This paper noted that "educational interpreters encounter distinctive challenges when working with this population that may not be experienced when working with a population that is solely deaf" (Enterlin et al., n.d., p. 2). This research is focused on the challenges of interpreting for this population and such as challenges related to expressive communication for students who are Deaf with physical disabilities, or challenges faced when voice interpreting for a student whose signing indicates a language disorder. Other research has studied specific disabilities that occur comorbid to d/Deafness. For instance, some strategies recommended for interpreting for Deafblind individuals include adjusting lighting, clothing, backgrounds, and location as well as adapting to different handhold and positions per each student (Nebraska Deaf-Blind Project, 2016). Interpreters working with this population need strong interpersonal intelligence as well as the soft skills of flexibility and adaptability (DeafBlind Interpreting National Training and Resource Center, 2018). When working with d/Deaf individuals who have Autism Spectrum Disorder (ASD) some strategies involve considering the communicative intent of behaviors, minimizing complex language, and making the classroom visually accessible but not distracting (Borders & Bock, 2014; Syzmanski, 2012). One challenge interpreters may face when interpreting for d/Deaf individuals with ASD is palm reversal errors which stem from difficulty in imitating body movement of others (Shield & Meier, 2012). Individuals who are d/Deaf with learning disabilities and intellectual disabilities may require a slower instructional pace as well as more modeling, prompting, supports, and adaptations of signs (Dijk et al., 2012; Soukup & Feinstein, 2007).

According to Guardino and Cannon (2015), there was significantly more research published on individuals who are Deaf/Hard of Hearing with Learning Disabilities (LD) from 1980-1999 as compared to recent years, when only two articles have been published in this topic in the last 15 years (Guardino & Cannon, 2015). The research on Deaf/Hard of Hearing individuals with Autism, however, has spiked in the past 15 years, with 28 total articles related to this topic (Guardino & Cannon, 2015). Even with more recent research in some fields, there is still an overarching lack of evidence-based strategies to be used with this population. These limitations substantiate the need of more research and writing on this subject.

The Gap and How to Fill It

There is a significant dearth of literature regarding d/Deaf individuals with disabilities. The researcher discovered a lack of information and frequent calls for further research and/or training throughout different fields related to DWD individuals including teacher perspectives (Musyoka et al., 2015), communication and language development in students who are DWD (Bruce & Borders, 2015), lack of theoretical framework for the education of DWD individuals (Guardino, 2015), challenge of using evidence-based practice with limited interpreting research (Brown & Schick, 2011), and lack of interpreter training for communication needs of students with significant disabilities (Luft, 2015). The researcher agrees with the summative statement by Paul (2015), that this population (DWD) "is most likely underserved, possibly poorly served, and definitely in need of more investigation" (p. 341) in order to develop more effective practices for this population and various subgroups encompassed in it. This lack of information is even more severe when considering ASL interpreting for this population specifically. This extensive gap calls for a two-fold solution, that is, creating a theoretical framework that combines ASL

interpreting and special education as a proposed structure for working with this population, and beginning primary research to start to answer the call for more research.

Theoretical Framework

As aforementioned, the first part of addressing the gap in research about ASL interpreting for DWD individuals involves proposing a theoretical combined conceptual framework to integrate aspects of research and knowledge from the fields of ASL Interpreting and Special Education. A main element of ASL interpreting is facilitating communication access and equality, and a key component of special education is individualization including the individualized education program (IEP). In order to follow established guidelines for Educational Interpreters while also meeting the needs of the student, the researchers propose that in working with DWD individuals, the interpreter—in addition to their typical role of maintaining dynamic equivalence through interpretation of linguistic information in the classroom—must 1) be familiar with the IEP team and the role of each member, 2) be familiar with the student's needs and motivations, and 3) be familiar with the academic and behavioral strategies successfully implemented for the DWD student. In other words, this framework proposes that the educational interpreter have familiarity with the student's IEP, including knowing the roles of the IEP team members, what interventions have already been implemented, and the present levels of academic achievement and functional performance, familiarity with the student and his/her personality, motivation, and needs, and an awareness of disability strategies for academic content and behavioral interventions.

Applied Research

After finding the significant dearth in literatures regarding ASL interpreting for DWD individuals, the researcher decided to conduct primary research on this topic. The research

sought to answer the question, "what are the experiences of ASL interpreters who work with d/Deaf individuals with disabilities?"

Methods

Design

The existing research on ASL interpreting for DWD individuals, and even in related fields, is very limited. This significant dearth of information means that this research does not have a strong foundation on which to base predictions. For this reason, the researcher chose to do a qualitative rather than quantitative study, seeking to understand the personal experiences of interpreters who have worked with this unique population of d/Deaf individuals with disabilities. The research was conducted as a qualitative phenomenology. The goal of the phenomenological design is to provide insight into the lived experiences of ASL interpreters who have worked with this population. The objective of this research is not to make wide generalizations from the findings, but rather to begin to understand some potential themes and trends in the experiences of interpreters who have encountered DWD individuals.

Participants

The researcher received approval from the Liberty University Institutional Review Board (IRB) for this qualitative study to be conducted through anonymous online questionnaires. Responses from participants were anonymous but did include demographic information regarding qualifications and years of interpreting experience. This study included three participants with 10 years of experience, three with 2-5 years of experience, and three with 6 months-2 years of experience. Interpreter qualification and certification levels included collegiate and post-collegiate educational training, pre-certified, Virginia Quality Assurance Screening (VQAS) qualification, Educational Interpreter Performance Assessment (EIPA)

certification, Certificate of Interpretation/Certificate of Transliteration (CI/CT), and National Interpreter Certification (NIC). To participate in this study, individuals were required to be over the age of 18 and have had one or more experiences in which they were the interpreter for a client who was d/Deaf with one or more disabilities. Participants were found using convenience sampling, also known as snowball sampling, and were contacted via email. The researcher used existing connections to branch off and make contact with the 9 participants who have the shared experience of interpreting for one or more DWD individuals. Each participant received a recruitment letter through email containing a link to the electronic consent information and the research questionnaire. Such a format enabled research to not be limited to one geographical location and expanded the pool of potential participants.

Data Collection

The online research questionnaire (see Appendix A) contained some demographic questions regarding interpreting experience and qualifications as well as multiple open-ended questions aimed at providing information to respond to the main research question; what are the experiences of ASL interpreters who have worked with d/Deaf individuals with disabilities? These open-ended questions asked interpreters about disability-specific strategies known/used with this population, what challenges were encountered in the interpreting field in general as compared with interpreting for DWD individuals, and what rewards were experienced in general ASL interpreting as well as in interpreting for DWD individuals.

Results

The participants' responses were collected and studied through content analysis in an attempt to find common themes among the participant's experiences in working with DWD individuals. This content analysis involved multiple readings and line by line analysis of the

questionnaire responses, labeling and listing of all significant statements, and organizing these statements into themes and subthemes. The researchers' knowledge and experiences in both the field of special education and that of ASL Interpreting influenced how the content analysis was conducted, as well as what conceptual labels were chosen for different data points. Three major themes were identified through analysis of participants responses: individualization, flexibility, and collaboration.

Individualization

The first major theme identified through analysis of participants responses was individualization. Individualization is the idea of acknowledging and responding to different individuals' needs, a concept that is at the core of the field of special education. As it relates to this research, interpreters mentioned using production modification and adapting for clients' needs as methods of individualization.

Production Modification

One of the most prevalent and widespread subthemes throughout all the responses was the modification of sign production while interpreting. Participant 8 suggested that one of the changes to production involves getting the content and concepts "in a manner that the client is able to grasp." For individuals who are Deaf with a physical disability, production modifications may look like "repetition of questions and answers to make sure the results are correct" (Participant 1). Multiple participants (3, 5, & 9) suggested that Deaf individuals with learning disabilities and intellectual disabilities "may need slower signing" and more gestural communication. For clients with more severe disabilities, the production may be majorly modified to be more "summary-based interpretation, much more visual, and [have] a lot more emphasis and facials" (Participant 2).

Adapting for Clients' Needs

Multiple participants addressed the necessity of adapting to clients' needs in correspondence to their disability. Participants 1 and 5 noted that different disabilities have different effects on language fluency, and Participant 3 stated that a main role of the interpreter is "meeting the communication needs of all parties involved." Some of the challenges addressed include clients with minimal language skills, slow cognitive functioning, and behavior challenges. Interpreters can meet the needs of Deafblind clients by making physical changes such as wearing black, using dark lipstick, and changing the backdrop to be more accessible (Participant 5). Interpreters can also meet the needs of clients with physical disabilities by adjusting their physical position in relation to the client and making sure there is enough space in the room (Participant 7 & 2).

Flexibility

Another major theme uncovered throughout the interpreter's experiences was the need for, and employment of, flexibility. Interacting with individuals with disabilities often requires significant amounts of flexibility to accommodate for behavior changes or to make adjustments to aid comprehension. This reality is intensified when unprepared or unqualified interpreters are tasked with interpreting for Deaf individuals with disabilities. Participants noted the use of flexibility in two major categories: critical thinking and improvisation.

Critical Thinking

One subtheme under flexibility was that of critical thinking. Interpreters expressed the need to critically consider situations in order to provide the most effective access, including matching the clients' needs and language used. Participant 6 supported this idea by stating that the interpreter's "role shifts as needed to ensure access is given." With clients who have

intellectual disabilities interpreters use critical thinking to "try to grasp how their mind processes things" (Participant 8) and interpret accordingly, judiciously selecting from the many different techniques for clarification (Participant 4).

Improvisation

Improvisation does not imply that interpreters working with this population are providing haphazard or subpar service to clients, but rather indicates a general lack of preparation for these situations. Participant 7 shared that he/she never planned on working with the DWD population but ended up in such settings multiple times. Participant 1 also shared that in working for Video Relay interpreting, there have been many times when the client has had some sort of undisclosed disability, so the interpreter must take time to "initially fetter out what the issue is" before moving forward.

Collaboration

The interpreters who participated in this study also consistently noted the need for collaboration between professionals, including educational teams and interpreting teams, as well as between the interpreter and his/her clients. Collaboration in essence involves sharing information and working in partnership with others. This quality was often discussed from a negative perspective however, as many participants described a lack of communication and collaboration among parties associated with the DWD client.

Collaborative Communication

A key component of collaboration illuminated through descriptions of participants' experiences was the need for collaborative communication. Interpreters working with DWD individuals may need to "tell the providers that information (what challenges [they] might face) in these situations" (Participant 1) as well as helping other professionals understand things like

language dysfluency (Participant 3). Participant 2 shared one of the biggest challenges relating to collaborative communication which is, "interpreters are left out of the loop often and we aren't even made aware of each student's exact accommodations, according to their IEPs."

Professionalism

Professionalism was another theme that carried throughout the information participants shared about collaboration. This theme was evident in descriptions of working with interpreter teams, requesting support such as Certified Deaf Interpreters (CDI), and pursuing mentoring opportunities. Participant 9 aptly encapsulated the importance of this sub-theme by stating, "keep everyone professional and we all win."

Discussion

Data collected through this qualitative research is corroborated by the existing literature in the related fields explored in the literature review. The theme of individualization is closely related to the person-centered planning framework discussed by multiple existing articles relating to the education of DWD individuals (Borders, et al., 2017; Ewing & Jones, 2003). Flexibility is not necessarily explicitly discussed in the literature, but it is certainly utilized in the field of special education when making accommodations and modifications as well as in ASL interpreting when interpreters adjust the target language output or external factors to meet client's individualized needs. The subtheme of critical thinking reiterates an established idea that there is much complexity relating to this topic, and not enough data to inform effective practices, leading to interpreters figuring out situations as they arise. The theme of collaboration, and particularly collaborative transdisciplinary communication is also heavily studied and supported by current literature in the field of DWD research (Ewing & Jones, 2003; Luft, 2015).

Additionally, the qualitative findings largely support, but also go beyond, the proposed conceptual framework which combined the existing frameworks for the field of special education and ASL interpreting, with a focus on individualization. This framework suggested that ASL interpreters for DWD individuals, particularly in educational settings, need to be familiar with the IEP, the client's needs and preferences, and instructional strategies for various disabilities. Participants responses pair well with the need to be familiar with and adapt to the student's individual needs as well as the importance of collaborative communication. The experiences of ASL interpreters went beyond this projected framework to reveal competencies that must be employed when working with this population, such as critical thinking and professionalism.

The ASL interpreters who participated in this study represent a small subset of the group of ASL interpreters who work with DWD individuals, and their experiences cannot necessarily be generalized to the larger population. Nevertheless, their experiences and the strategies they implemented in their interpreting process, combined with the existing literature on this topic and related topics, can serve as a starting point as the field of interpreting seeks to better serve this exceptional population.

Limitations

One significant limitation of this study was the fact that participants were not limited in the age group of d/Deaf individuals with disabilities with which they worked, or by the setting in which they worked. Ideally, there would be a replicated qualitative study of interpreters' experiences with various ages and settings, such as primary school-aged children in educational settings, adults in day support programs, adults in vocational settings, etc. These experiences could then be examined to come to a fuller understanding of what strategies are used, as well as

what challenges and rewards are faced when working with the DWD population as a whole. This drawback exists because of the limited number of participants in this research study.

Another limitation was the brevity of some participants' responses. The research questionnaire was largely open ended, but there was no minimum requirement for these responses. Some themes may have been able to be more strongly supported had there been more information provided by the interpreters. As these questionnaires were anonymous, however, there was no way to follow up or ask for more information. This limitation could be addressed in future studies by either conducting in-person interviews which would allow for a more dynamic interaction with more layers of questioning or building in a way for follow-up questions to be asked to the research participant.

Conclusion

As mentioned tirelessly throughout this research, there is a severe lack of research on the topic of ASL interpreting for d/Deaf individuals with disabilities. This qualitative research began to explore the experiences of nine interpreters who have worked with this population, finding significant themes of individualization, flexibility, and collaboration. These themes and data points help to create a foundational understanding of what strategies and tools are implemented when working with this population, but there are still countless gaps to be filled. Further research (both qualitative and quantitative) regarding strategies used in ASL interpreting for DWD individuals must be pursued, in order to find evidence-based practices to utilize when working with this population, to best serve them and meet their needs. Even within this research there is room for expansion and further study, as some trends such as self-awareness and self-analysis were fairly prominent in the data but lacked sufficient information to be included as themes. Further research on these subtopics would also be beneficial to the field.

Guidebook Rationale

As substantially discussed throughout this thesis, there is a dire need for researchers and practitioners to collaborate in further research, to inform theory and identify evidence-based practices in the area of ASL interpreting for d/Deaf individuals with disabilities (DWD). To this end, the researcher has conducted an extensive literature review, proposed a theoretical framework, and conducted primary qualitative research study with ASL interpreters who have worked with DWD individuals. In an effort to help this information reach the most ASL interpreters in the field as possible, a practical guidebook has been created through a compilation of this research and special education strategies. A couple similar guidebooks have been created for Deafblind interpreters, which can serve as a support in structuring and organizing the following guidebook (DeafBlind Interpreting National Training and Resource Center, 2018; Nebraska Deaf-Blind Project, 2016). The goal of this creative portion is to portray the research and information in an engaging and meaningful manner, to get more interpreters to access this information, and to spark more research in the future.

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Appendix A

ASL Interpreting Questionnaire Outline

Research Question:	Questionnaire Question:
Demographic Information	How long have you professionally worked in the ASL interpreting field?
	What certifications do you hold?
How do interpreters work with DWD individuals?	How would you describe your role as an interpreter?
	How often do you work with DWD individuals?
	Does your role change when your client is d/Deaf and has disabilities (DWD) as opposed to d/Deaf without disabilities? If so, how?
	What are the disabilities have you encountered with clients in interpreting?
	Are there specific practices that you have found helpful when working with an individual who is d/Deaf and has (list previous responses), and if so, what?
	As an interpreter for DWD individuals, have you received any specialized training or continuing education that has prepared you for these contexts?
	 If yes, what modifications would you suggest to improve the training process?
What unique challenges are experienced by interpreters that work with DWD individuals?	Have you faced challenges associated with interpreting in general? If so, what are they?
	Have you faced challenges associated with interpreting with DWD individuals? If so, what are they?
What unique rewards are experienced by interpreters that work with DWD individuals?	Have you experienced rewards associated with interpreting in general? If so, what are they?
	Have you experienced rewards associated with interpreting with DWD individuals? If so, what are they?

Appendix B



