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*Brigham Young University*

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Student Perspectives on Feedback in a Spanish Medical Interpreting Course

Allison Rebecca Brimhall

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Master of Arts

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## ABSTRACT

### Student Perspectives on Feedback in a Spanish Medical Interpreting Course

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Master of Arts

Medical interpreter education is a fast-growing field in which learners sometimes receive inadequate feedback to help them improve their interpreting skills (Sultanić, 2021). This qualitative study focused on students' perspectives on the different types of feedback given in a university Spanish medical interpreting course. Interviews and written reflections were analyzed to investigate what students personally considered to be the outcomes of the class and how feedback given in the course was associated with their development of interpreting skills and self-efficacy. Students reported that they found the most meaningful improvement through (1) guided self-assessment to discover gaps in their abilities, (2) collaboratively constructed knowledge through group discussions, (3) authentic practice sessions and access to an instructor who worked in the field, and (4) testing their skills in real-world encounters.

Keywords: interpreter training, medical interpreting, hybrid language teaching, student feedback

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This thesis was written in memory of Dr. Charles Lemon, who had a passion for improving bilingual healthcare communication in our community. Many people were inspired by your efforts. We seek to carry forward your legacy in the work that we do.

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## **Chapter 1: Introduction**

Medical interpreting (also referred to as health care interpreting) is a form of public service interpreting in which interpreters act as linguistic intermediaries to facilitate communication in health care contexts (Angelelli, 2019). Medical interpreting is primarily performed in the consecutive mode, a format in which the interpreter understands the ‘sense’ of an orally delivered message and orally transposes it into another language after the speaker has paused. Medical interpreters are traditionally trained to act as a ‘conduit,’ refraining from interjecting their own words or opinions and avoiding personal involvement (NCIHC, 2004). Medical interpreting has become one of the fastest-growing specialties within the field of interpreting, leading to an ever-increasing demand for education and formalized qualifications for medical interpreters (Sultanić, 2021).

### **Medical Interpreter Education**

Sultanić (2021) detailed how medical interpreter training covers basic medical terminology, procedural knowledge about health care systems, ethics and standards of practice for medical interpreters, and strategies for effective interpreting. Due to limitations in resources, time, and human capital, it is less common for medical interpreter training to include language-specific practice or feedback, especially when it is offered outside of academic settings. Instead, it is common for medical interpreter training to be taught in the majority language of the community and for trainees to be encouraged to study medical terminology in their other languages of expertise (Crezee, 2015; Crezee & Marianacci, 2022). Sultanić concluded by arguing that the future of medical interpreter training will be in language-specific training, contextualized and medical specialty-specific training, and medical interpreter certification for medical students and other bilingual providers.

## **The Need for Higher-Volume and Higher-Quality Feedback in Interpreter Training**

Alongside a lack of language-specific instruction and practice, Miyamoto (2008) found that instructors tend to present interpreting strategies unilaterally, leaving learners to apply strategies haphazardly and with insufficient insight on how to improve. Once medical interpreters begin to offer their services professionally, they do not ordinarily receive feedback unless they go out of their way to seek it out, leading to a need for self-awareness and the ability continually improve on their own (Crezee & Marianacci, 2022; Fowler, 2007; Refki et al., 2004). To this end, Miyamoto asserted that through receiving adequate feedback during training, interpreting students can learn to monitor and analyze their own use of interpreting strategies and become self-regulating learners. Setton (2010) called for more consistent and “usable feedback” in interpreter training to help students throughout the most formative stages of the learning process.

## **Types of Feedback in Interpreter Education**

Feedback in interpreter education is not limited to comments or grades given by an instructor, but rather includes any “information provided by an agent . . . regarding aspects of one’s performance or understanding” (Hattie & Timperley, 2007, p. 81). This information can come from instructors, peers, oneself, reference materials, and direct experiences. Feedback in interpreter education can be broadly categorized according to the following characteristics: (a) whether it is oriented to interpreting as an end product or to interpreting as a process, (b) degree of synchronicity, and (c) reference criteria.

### ***Feedback on Product Versus Process***

When feedback focuses on the quality of a sample of student performance taken at a single moment in time, it can be referred to as product-based. Product-based evaluation generally

seeks to identify and quantify omissions, embellishments, distortions in meaning, poor grammar or language use, and hesitation or a monotone voice in student performance (Lee, 2015; Lee, 2016; Su, 2019; Yang, 2018; Yenkimaleki & van Heuven, 2018). Conversely, process-based feedback helps students to understand the processes behind their performance, diagnose the root causes of potential errors or poor delivery, and strategize to improve aspects of future performance (Li, 2013; Li, 2015; Wu & Liao, 2018).

### ***Degree of Synchronicity***

Synchronous feedback is given in the same moment in which a student is carrying out a task (e.g., correcting a student in the middle of their turn during live interpreting practice), or immediately following the completion of a task (e.g., giving feedback immediately following that student's turn). Asynchronous feedback is given in a moment other than the one in which the student performs the task (e.g., an instructor watching a recording of a student's interpreting practice and later sending written feedback).

### ***Reference Criteria***

Longitudinal feedback analyzes changes in an individual student's performance over time by comparing two or more samples of their work (Han & Fan, 2020). Norm-referenced feedback compares a student's performance to that of other students, or, less-frequently, to that of experienced practitioners (e.g., professional medical interpreters; Tang & Li, 2017). Criterion-referenced feedback compares a student's performance with predetermined assessment criteria used to evaluate interpreting quality (J. Lee, 2008; S.-B. Lee; 2015).

### **Intended Outcomes of Feedback in Interpreter Education**

The present study explored student perspectives on how feedback given in a consecutive medical interpreting course influenced outcomes related to self-efficacy and interpreting skills.

### ***Self-Efficacy in Interpreting Students***

Bates (2018) posited that ‘confidence’ is a term that is nearly interchangeable with ‘self-esteem,’ ‘positive self-regard,’ or ‘positive self-perception,’ whereas ‘self-efficacy’ describes a student’s belief in their ability to do well, problem solve and exert some level of control in an interpreting session. I will therefore use ‘self-efficacy’ to describe a feeling of preparedness and one’s sense that they are capable of interpreting effectively in simulated scenarios and real-world encounters.

### ***Skill Development in Interpreting Students***

In the present study, interpreting skills were grouped into the following categories: (a) domain-specific knowledge and vocabulary; (b) controlling segment length, intervening, and clarifying; (c) memory and note taking; (d) delivery and presentation; and (e) understanding the constraints of the interpreter’s role. Because the present study focused on the experiences of novice interpreting students, interpreting skills will be discussed in terms of these broad categories rather than being analyzed with greater specificity.

### **The Present Study**

The present study was conducted in connection with an introductory course on Spanish medical interpreting at Brigham Young University to investigate student perceptions of how different forms of feedback related to their sense of self-efficacy and their development of interpreting skills. The class involved formal instruction on interpreting theory and ethics, simulated medical dialogues in which students practiced interpreting consecutively between English and Spanish, weekly activities designed to enhance student knowledge and interpreting performance, and a volunteering assignment in which students performed six hours of medical interpreting in the community.

Approximately one month following the conclusion of the 16-week semester, eight students participated in qualitative interviews that averaged 45 minutes in length. The interviews were then transcribed and combined with written reflections each interviewee had submitted in the class as a follow-up to their volunteer interpreting hours. The eight interview transcripts and eight written reflections were thematically analyzed and coded according to 10 main themes relating to the following research questions:

1. How did different forms of feedback given in this course influence students' self-efficacy in the following contexts:
  - a. in interpreting exercises?
  - b. during real-world volunteer hours?
2. How did different forms of feedback given in this course influence the development of student skills in the following categories:
  - a. domain-specific knowledge and vocabulary?
  - b. controlling segment length, intervening, and clarifying?
  - c. memory and note taking?
  - d. delivery and presentation?
  - e. understanding the constraints of the interpreter's role?
3. Which forms of feedback did students find most helpful, and why?

The rest of this thesis will be organized as follows: Chapter 2 provides a review of previous research related feedback in interpreter education. Chapter 3 provides a detailed description of the participants and methodology used in the present study. Chapter 4 provides the results of the present study. Chapter 5 provides a discussion of the results.

## **Chapter 2: Literature Review**

This chapter will provide an overview of previous studies on interpreter education related to my research questions. I will describe tendencies in interpreter education curricula and different methods of supporting students in their development of interpreting competence. I will then overview research on factors contributing to student skill development and student self-efficacy in interpreting. Finally, I will conclude by discussing research on different types of feedback in interpreter education and how feedback may relate to student self-efficacy and skill development.

### **Research on Curricula for Interpreter Education**

Interpreter education curriculum research has been carried out primarily to describe and evaluate the content, quality, and merits of different curricula used by interpreter educators (Cirillo & Niemants, 2017; Giustini, 2020; Klimkowski, 2015; Ono et al., 2013). Some studies have focused on the advantages and disadvantages of different delivery methods for interpreter education, such as hybrid or online distance learning (Güven, 2014; Kim, 2017; Ko, 2008; Ko & Chen, 2011; Moreno et al., 2011; Şahin, 2013; Tymczyńska, 2009). Other research has been published by interpreter trainers to provide the rationale for specific training approaches such as lead-in exercises, corpus-based training, and strategies for reducing cognitive load while interpreting (Baxter, 2012; Dal Fovo, 2018; Davitti & Pasquandrea, 2014; Dong et al., 2019; Tebble, 2014; Yenkimaleki & van Heuven, 2018).

### **Descriptive Perspectives on Interpreter Education Curriculum Design**

Ono et al. (2013) performed a systematic review of core competencies for medical interpreters and developed a training program based on the five core competencies that were identified as most crucial, namely (a) maintaining accuracy and completeness; (b) medical



terminology and knowledge; (c) making ethical decisions; (d) nonverbal communication skills; and (e) cross-cultural communication skills. Participants took a pre-test, went through the training program, and finished by completing a post-test. The authors then discussed the outcomes of the training program by comparing the pre- and post-test results of the experimental group with those of a control group. This methodology has been commonly applied in descriptive action research studies carried out concurrently with the implementation of new interpreter training programs, with results coming from either pre- and post-assessments of student performance or from experiential feedback given by learners after participating (Ko, 2008; Moreno et al., 2011; Niemants & Stokoe, 2017). Abdel Latif (2020) presented another example of descriptive research on curricula for interpreter education in the form of an overview of existing research on interpreter education teaching practices, methodologies, program evaluation, and needs analyses for training programs.

### **Propositional Perspectives on Interpreter Education Curriculum Design**

Rather than describing the outcomes of a particular interpreter training program, Angelelli (2006) proposed a list of essential components to be used in the design of future health care interpreting curricula. The author evaluated existing health care interpreter education programs and then suggested core principles to guide the development of new programs, including taking cognitive and affective factors into account, implementing problem-based learning, and using different assessment approaches to measure the achievement of program goals. Angelelli concluded by recommending that interpreter education programs use the following core sequence: introduction to medical interpreting, language enhancement and strategies for medical interpreters, roles of the medical interpreter, and a practicum in medical interpreting.

Whereas Angelelli (2006) proposed general principles to guide the development of health care interpreting curriculum, Tebble (2014) provided a more concrete and specific proposal for a genre-based approach to dialogue interpreter training. The author described the theoretical foundations for a functional linguistic analysis of interpreted medical consultations and explained how this central approach to educating interpreters could be implemented by familiarizing students with the structure and pragmatics of discourse contextualized in medical consultations. The author then gave a prototypical model of stages to be outlined in the syllabus for a genre-based interpreter training program, describing exemplary assignments and student learning activities. The author concluded by presenting the aims of a genre-based approach: namely, to join contextual knowledge about health systems and interpreting theory with practice and self-reflection so that students can develop an ethic of professional accountability.

Other propositional approaches to interpreter education curriculum design include research on progressive task difficulty for novice interpreting students as an alternative to the “sink or swim” rationale that is common in traditional interpreter training. Numerous researchers have argued in favor of a “gentle lead-in” approach in which students complete preparatory exercises prior to any full-on interpreting (Al-Rubai’i, 2009; Angelelli, 2006; Baxter, 2012; Kuwahata, 2005). Proposals for different approaches to health care interpreting curriculum have most commonly been published as action research carried out by the educators themselves as they implemented a unique approach to teaching (Bale, 2013; Crezee, 2015; Davitti & Pasquandrea, 2014; Kim, 2017; Ko & Chen, 2011; Wadensjö, 2014; Wu & Liao, 2018; Yenkimaleki & van Heuven, 2018).

## **Critical Perspectives on Interpreter Education Curriculum Design**

A third category of research on curricula for health care interpreting has taken on a critical approach in order to highlight observed or potential problems with the basic tenets or execution of health care interpreter education programs. Giustini (2020) argued that interpreter training was purported to be offered to Japanese students as a language tool to improve English proficiency. She then reviewed teaching methods and curriculum design in a university course and compared them to self-reported student and instructor experiences to show that linguistic instrumentalism (i.e., the promise of improved English-language proficiency as an outcome of interpreter training) was used as a selling point for interpreter training in Japanese higher education, but that teaching activities and outcomes for students did not line up with the outcomes promised by the program. As another example of critical interpreter education research, Gambrell and Lesch (2021) argued that interpreter education programs in South Africa were not sufficiently selective, resulting in instability in the field of interpreting and a lack of quality in professional services rendered by trained interpreters. The authors then collected survey data, which showed that interpreter trainers in South Africa, saw a strong need for aptitude testing prior to program admission. Finally, the authors reported that trainers felt the most important aspect of aptitude testing was to ensure a minimum level of B language (i.e., less dominant language) proficiency. To a similar end, Loiseau and Delgado Luchner (2021) proposed an aptitude test for language proficiency in trainees' A, B, and C languages in order to ascertain whether trainees were sufficiently proficient in each language to be successful as interpreting students.

Research on curricula for interpreter education has informed interpreter educators about potential advantages and disadvantages of distinct teaching approaches and provided a venue for

educators to share findings about each approach so that future programs may more easily avoid pitfalls. Whereas descriptive and propositional approaches have provided models and prototypes to guide program development, critical approaches have questioned fundamental assumptions in interpreter education and investigated how curricula have lined up with purported program goals.

## **The Primacy of Student Performance in Interpreter Education Research**

### **Product-Based Approaches**

Student performance has been assumed to be the most common indicator of the effectiveness of different interpreter training programs. Performance has been evaluated in test-taking or interpreting task contexts (i.e., product-based approaches), or by evaluating processes and tactics used by students in order to achieve that performance (i.e., process-based approaches). In different studies, student performance has most frequently been rated by self, peer, or instructor (Choi, 2006; Han & Riazi, 2018; Lee, 2019).

Studies on student interpreting have frequently aimed to analyze, predict, and explain student performance as an end product of interpreter training (J. Lee, 2008; S.-B. Lee, 2015; Abdel Latif, 2020). Samples of student performance have often consisted of tests taken by trainees or recorded student interpreting tasks that were assigned as part of an interpreting course or training (Dong et al., 2019; Lee, 2016; Lee, 2018; Su, 2019). Whereas a preponderance of studies have been carried out over the course of a routine interpreter training without comparing different treatments to a control group, some researchers have controlled as many variables as possible in order to create experimental or quasi-experimental conditions (Bartłomiejczyk, 2007; Yenkimaleki & van Heuven, 2018). For example, Yang (2018) created quasi-experimental conditions by assigning three different groups of students to complete a different form of preparation (pre-task planning, task repetition, and formulae acquisition) prior to an interpreting

task. All groups completed their assigned pre-interpreting task, except for a control group of students who were not assigned any form of preparation. Afterwards, all students including the control group completed the same interpreting task. Yang then measured the effects of the different preparation tasks on the fluency of student performance, finding that task repetition was the best form of preparation to improve the fluency of student interpreting. Product-based approaches to assess student interpreting do provide a measurable way to assess the outcomes of a given training; however, they do not sufficiently instruct students or trainers on how to further improve their processes and strategies.

### **Process-Based Approaches**

Process-based approaches to evaluating student interpreting performance have sought to understand the motives and the outcomes of strategies or tactics used by students in producing a sample of their performance. Interpreter trainers such as Dong et al. (2019), Li (2015), and Tang and Li (2017) have sought to create comprehensive lists of processes observable in student performances; for example, cognitive student tactics include memory techniques, guessing, anticipating, and visualization. Linguistic strategies employed by students include using formulaic expressions, substituting, word-for-word translation, explication, and compression. Still more tangible and observable student tactics include consecutive note taking, self-repair (i.e., post-hoc correction), and stalling (Chmiel, 2012; Zhang & Song, 2019).

Other approaches have investigated how factors such as self-efficacy, anxiety, and B language proficiency impacted student's selection of interpreting processes (Al-Rubai'i, 2009; Bale, 2013; Chmiel, 2012; Yenkimaleki & van Heuven, 2018). Whereas some approaches involved the researcher trying to empirically observe student strategies used in student performance, other approaches have sought to understand processes behind student performance

by asking students to explicitly share which mental processes they used while interpreting. In fact, Yang (2018) provided a fusion between a product-based and process-based approach, primarily performing an empirical analysis on recordings of student interpreting tasks, but additionally asking students to explicitly describe the strategies and processes they had employed immediately after completing an interpreting task, finding that during the interpreting task, students did not rely on preparatory materials such as word lists or background knowledge exercises.

### **Reference Criteria**

Another large portion of studies on student interpreter performance have evaluated the reliability of different assessment criteria used to evaluate the content, form, and delivery of student interpretation. A preponderance of this literature focuses on the components of, and rationale for, certain rating scales used to assess student interpreting by tagging different distortions in meaning with categories such as fluency, target language grammar, and completeness (Al-Kharabsheh, 2017; Angelelli, 2007; Ding, 2017; Wadensjö, 2014; Zhang & Song, 2019). Some studies on assessment of student interpreters have focused on the implementation of these rating scales; for example, presenting findings on rater behavior in order to discuss the reliability of the criteria or inter-rater consistency (Han, 2017; Lee, 2016; Lee, 2019). The reference criteria used in the present study will be overviewed in Chapter 3.

### **Research on Student Experience**

Recorded student performances have been given primacy as a source of data in studies on interpreter education, yet student experience represents a secondary source of information incorporated into a smaller but not insignificant number of studies on interpreter education. For example, Lee (2016) focused on analytic scales for peer assessment but used qualitative student

experience data as the primary source of information. Interviews, surveys, questionnaires, and student write-ups have provided insights about how students experienced interpreter education programs and how the outcomes of these programs intersected with student goals (Giustini, 2020; Kim, 2017; Lim, 2013; Mo & Hale, 2014; Pan & Yan, 2012; Valero Garcés, 2017; Wu, 2016). In other cases, studies have been carried out to identify the specific challenges and problems experienced by interpreting students and how those setbacks were either mitigated or went unaddressed (Arumí, 2012; Dong et al., 2019; Jiménez Ivars et al., 2014; Li, 2013; Pan & Yan, 2012; Timarová & Salaets, 2011; Wu & Liao, 2018). The present study seeks to add to a small number of studies on student experience that specifically focus on how feedback affected learners' educational experiences and outcomes (Han & Fan, 2020). I have subdivided the intended outcomes of interpreter education into the development of interpreter skill and the fostering of self-efficacy, both of which will be outlined in the sections below.

### **Factors Contributing to Student Interpreting Skills**

Interpreting students need to develop a foundation for all skills required in the interpreting profession (Angelelli 2006). These include not only proficiency in working languages, but also the core competencies put forth by Ono et al. (2013) including (a) maintaining accuracy and completeness; (b) medical terminology and knowledge; (c) making ethical decisions; (d) nonverbal communication skills; and (e) cross-cultural communication skills. Psychological factors such as performance skills and resistance to stress form another important aspect of interpreter education where students can gain self-awareness of where they require more psychological skill and how to improve it (Atkinson & Crezee, 2014; Bates, 2018; Bendazzoli & Pérez-Luzardo, 2022; Tymczyńska, 2009). I will discuss psychological skills for interpreters below in a section on helping interpreting students to manage anxiety.

Whereas many studies have focused on assessing student skill as a fixed phenomenon measured in a snapshot of time, fewer have focused on the gradual process of student skill development. In broad terms, research focused on interpreter education has explored student skill development by first focusing on a teaching intervention and then by measuring or describing subsequent changes in student performance or ability. Most commonly, the effects of teaching interventions have been observed in the accuracy or fluency of student interpreting (Atkinson & Crezee, 2014; Yenkimaleki & van Heuven, 2018). As described in my discussion of different curricula used in interpreter education, researchers have reported empirical findings surrounding the impacts of different interventions on student skill development such as note taking (Chmiel, 2012), memory (Al-Rubai'i, 2009), and preparatory tasks (Yang, 2018).

### **Activities that Promote Student Skill Development**

#### ***Practical Application***

Viaggio (1991) asserted that interpreters should receive classroom instruction for an extended period of time before entering a practicum phase of training, much like nursing and medical students complete classroom studies before proceeding to on-the-job training. Since Viaggio's assertion, interpreting has grown within the world of higher education, yet some have argued that interpreter training "has never truly left the realm of apprenticeship," pointing out that without exposure to real-world settings, learners experience a discrepancy between their classroom learning and their real-world abilities (Crezee, 2015, p. 52). For this reason, it has been argued that interpreter education should ideally involve a combination of formal instruction and applied practice in the form of authentic simulated interpreting tasks or real-world interpreting (Angelelli, 2006; Chouc & Conde, 2016).



### ***Strategizing to Manage Cognitive Load***

Li (2015) adopted a comprehensive approach to student skill development by formulating a list of competencies necessary for student interpreters, along with recommendations for how to teach students to implement interpreting strategies. Dong et al. (2019) narrowed the skills list developed by Li into a more targeted set of strategies to be taught to novice student interpreters in order to help them simplify the cognitive task of interpreting. Kuwahata (2005) suggested that overwhelming students too early on in their skill development will negatively impact the outcomes of interpreting classes, and that students should first focus on simplified non-interpreting tasks to master subcomponents of interpreting skills, and then slowly incorporate newly acquired skills during simplified interpreting tasks.

In a major meta-analysis of the effects of feedback on student learning, Hattie and Timperley (2007) claimed that it is more effective to give students feedback about their strategic approach than it is to give feedback on correctness alone, and that feedback about self-regulation will help to create learners who effectively evaluate their level of knowledge, use of strategies, and further need to seek external feedback.

### ***Listening, Analysis, and Memory Supports***

Yuan (2022) asserted that because of the instantaneity of interpreting, the core skills required are listening, analysis, and note taking. Yuan found that novice student interpreters had an easier time retrieving ideas contained in oral messages from memory when those ideas had a causal relationship, whereas ideas with an additive relationship were more difficult to process and retrieve from memory. Causally related sequences were less demanding for students to memorize and successfully render into the target language, but “satellite information” (i.e., information with an additive relationship to the rest of the segment, having no causal links) led to

increased cognitive demand when it had to be remembered separately from a causally linked sequence of events. As a solution, student interpreters have been encouraged to keep segments of speech short and use visualization and other cognitive techniques to enhance memory, rather than relying on note taking as a crutch (Al-Rubai'i, 2009; Kuwahata, 2005). However, Yuan suggested that to manage cognitive load, note taking can be used to handle satellite information that would otherwise have to be remembered separately from causally linked sequences. Along these lines, Al-Rubai'i (2009) found that students cannot directly improve the retrieval of information from their working memory, but that they can only improve the recording and retaining of that information through close listening and analyzing the relationships between ideas. When cognitive resources are limited, note taking has been presented as a workaround to be able to record and retain satellite information which may otherwise have been lost, as shown in student performances in Yuan (2022).

### ***Baseline Language Ability***

Jiménez Ivars et al. (2014) explored the relationship between language proficiency and self-efficacy in student interpreters, showing a connection between student skill and self-efficacy. Angelelli (2006) and others have pointed out that interpreting programs assume a baseline language ability and are not equipped to aid students in deepening proficiency in their less-dominant language. Linguistic ability, therefore, can limit further skill development in interpreting classrooms (Gambrell & Lesch, 2021). Loiseau and Delgado Luchner (2021) found that one of the most common setbacks for student interpreters is a limited B language proficiency. Hattie and Timperley (2007) posited that instructors should determine whether further instruction in the second language would be more powerful than feedback on interpreting skills.

### ***Domain-Specific Knowledge***

In spite of the relatively short segments that are typical in dialogue interpreting, consecutive interpreting presents a challenge to working memory, as students process not only words, but also the overall pragmatic meaning, sequence, and details given within each utterance. Yuan (2022) investigated how student interpreters processed messages in an interpreting task while functioning within the constraints of their limited memory and cognitive resources. Yuan found that when students had prior knowledge related to the information being interpreted, that prior knowledge was accessed from long-term memory, reducing the load to working memory. Therefore, Yuan argued that a lack of background knowledge can increase the processing demands involved in interpreting, limiting students' overall interpreting ability. Strategies for how to mitigate other limitations to cognitive processing ability have been investigated on a case-by-case basis, depending on the language pair and subject matter involved in interpreting (Kuwahata, 2005). Crezee (2015) proposed that students should build up knowledge in “simulated situated learning” tasks designed to be as contextualized and authentic as possible (p. 53). Lastly, research has suggested that the more students are familiar with commonly recurring sequences and phrasing in health care conversations, the more they can rely on the cognitive technique of anticipation recommended by Al-Rubai'i (2009).

Multiple studies have sought to understand which pedagogical approaches support students in building specialized linguistic and metalinguistic knowledge required for medical interpreting, most of them focusing on medical terminology training or giving students access to a corpus of professional interpreting samples (Bale, 2013; Baxter, 2012; Crezee, 2015; Wu & Liao, 2018). Regarding the expansion of domain-specific vocabulary for medical interpreting, Straker (2007) advocated for small-scale glossaries adapted to each learner's needs. Because

medical interpreters cannot overlook the fact that oral communication is often non-literal, some studies have focused on giving students training on the pragmatics of dialogic communication (Davitti & Pasquandrea, 2014; Niemants & Stokoe, 2017; Tebble, 2014).

## **Factors Contributing to Student Self-Efficacy in Interpreting**

### **Self-Efficacy Versus Confidence**

Interpreter self-efficacy is determined by experience level and to psychological factors unique to each learner. Confidence and self-efficacy have not always been shown to correlate with competence. For example, Moreno et al. (2011) studied the outcomes of a web-based interpreter training. Participants who completed a three-week web-based training demonstrated increased knowledge compared both to pre-tests and compared to the post-tests of the control group. However, the researchers saw no change in interpreter confidence for either group. In other words, interpreter confidence seemed to have no relationship to changes in knowledge.

Although various authors (as well as student reports in chapter 4 of the present study) have used the term ‘confidence,’ to describe a feeling of preparedness or willingness to take on interpreting tasks, for the present study, I favored the term ‘self-efficacy’. Confidence is one component of self-efficacy, but primarily describes a positive opinion of oneself, whereas self-efficacy encompasses a student’s belief in their own “capacity to do well, figure things out, and exert some level of control over a situation” in interpreting (Bates, 2018, p. 51). Baxter (2012) differentiated between attitude (student’s evaluation of the implications of the situation and their ability to handle it) and aptitude (technical skill), arguing that interpreters need both in order to handle the demands of interpreting.

Researchers of student interpreter self-efficacy have most often used self-reported self-efficacy ratings to predict or explain student performance (Jiménez Ivars et al., 2014; Lee, 2014;

Lee, 2018; Timarová & Salaets, 2011). Lee (2018) performed statistical analyses in order to see what kind of a relationship existed between student responses to a survey about self-efficacy and performance on interpreting exams in an undergraduate consecutive interpreting course.

Participants' responses to a questionnaire were used to determine a numerical value on the interpreting self-efficacy (ISE) scale developed by Lee (2014). The ISE scale included subscales for self-confidence, self-regulatory efficacy, and preference for task difficulty. A strong positive correlation between interpreter self-efficacy and interpreting performance was found, suggesting that self-efficacy may have been a contributing factor in performances that were given higher scores. Lee suggested that student self-efficacy may be equally as important as student competence in determining the appropriate level of difficulty for student interpreting tasks. The author then concluded that teachers may see positive results from adapting their pedagogical approach to learners' reported ISE levels rather than to learners' level of experience alone. To this point, Hattie and Timperley (2007) found that learners with high levels of self-efficacy made efficient use of feedback no matter its complexity, suggesting that being familiar with each student's level of self-efficacy can inform instructors as to the optimal level of detail to include in feedback.

### **Helping Interpreting Students to Manage Anxiety**

Tymczyńska (2009) posited that while students interpret, “emotions such as anxiety or low self-esteem may raise the affective filter, i.e., create a ‘mental block,’ and thus prevent efficient processing of the language input” (p. 152). Some studies have aimed to help minimize the negative impacts of the ‘affective filter’ on student interpreting (Arnaiz-Castro & Pérez-Luzardo Díaz, 2016). A relatively small number of studies have explored the outcomes of psychological interventions intended to help student interpreters manage the stress and anxiety

that accompanies interpreting (Atkinson & Crezee, 2014; Bates, 2018). Atkinson and Crezee (2014) argued that all interpreter training should involve at least one formal teaching session on psychological resilience skills so that stress and performance anxiety will be less likely to impact students' future professional practice. Bendazzoli and Pérez-Luzardo (2022) incorporated theatrical training sessions into interpreter education and found that some activities were effective in helping students to manage stress related to performance anxiety.

Bates (2018) examined how student interpreters' anxiety and self-efficacy levels changed as a result of training, having students write journal-style reflections at multiple points in their training and comparing their experiences to student interpreters who did not participate in the training phase of the study. Baxter (2012) proposed that introductory interpreting courses should invite students to reflect on activities they regularly perform which are similar to consecutive interpreting, such as relaying information shared over the phone to a third party who is not able to hear what was said on the phone. The author argued that students recognizing that they are comfortable performing activities that are similar to consecutive interpreting will "improve overall confidence, the key to improved performance" (p. 24). Kuwahata (2005) argued that teachers should help students to break interpreting down into different micro-skills, thereby reducing stress and anxiety.

Although overall self-efficacy in interpreting takes time for student interpreters to develop, Tymczyńska reasoned that well-designed learning activities with clear and attainable objectives will give students a sense of achievement, helping them to feel satisfied with gradual improvements to their performance.

## **Experiential Learning and Self-Efficacy**

Valero Garcés (2017) presented a case study of student interpreters who participated in both classroom training and real-life community interpreting internships. Student reflections showed a pattern of attributing the greatest rise in confidence to having interpreted in real-world encounters. Not only did the students report greater confidence due to experiencing success in the encounters, but also because staff had entrusted them with these tasks. This illustrates how experiential learning promotes “legitimate peripheral participation by a Community of Learners in the Community of Practice” (Crezee, 2015, p. 50). Chouc and Conde (2016) reported similar results, including that experiential learning enhanced classroom learning for interpreting students, leading to an increase in self-efficacy.

The present study aims to contribute to a smaller branch of student interpreter self-efficacy research that investigates how self-efficacy is gradually developed by students through feedback received in the classroom and during real-world interpreting hours.

### **Feedback in Interpreter Education**

Fowler (2007) defined feedback as information aimed at altering the gap between learners’ actual level of knowledge or ability and a reference level of increased knowledge or higher ability. Feedback can be given to students or sought out independently by students and can come as a result of observations and experiences in learning environments both inside and outside of the classroom, even being “detected by a learner without it being intentionally sought” (Hattie & Timperley, 2007, p. 82).

### **Summative Versus Formative Feedback**

Summative feedback can come in the form of a grade on a summative assessment such as an interpreting exam in addition to written comments or oral feedback that justify the grade. The

main goal of summative assessment is to summarize a learner's achievement status in the form of a grade and "is geared towards reporting at the end of a course of study especially for purposes of certification" (Fowler, 2007, p. 254). Fowler emphasized that summative assessment does not usually have immediate impacts on learning. Periodic summative assessment has tended to be performed in interpreter education to hold learners accountable for showing evidence of progress or to indicate a student's level of preparedness to interpret in the real world (Angelelli, 2007; Su, 2019). Beyond this function, summative assessment has been used in research that has measured student performance or the impacts of teaching strategies, perhaps because student performance is more amenable to measurability and quantitative analysis.

Fowler (2007) asserted that "tests don't produce interpreters; proper education does," to emphasize that it is through formative assessments that students learn how they might avoid future errors and build competence (p. 254). Formative assessment "helps students concentrate on assessing and improving their future learning, instead of collecting information about whether they have achieved their learning outcomes based on what they did in the past" (Crezee & Marianacci, 2022). Several researchers have argued that formative assessments should be performed in higher volume than summative assessments, in order to reverse the common notion that minimal summative assessment is all that is required for an interpreter to be considered certified and competent (Han & Fan, 2020; Li, 2018).

### **More and Less Time-Sensitive Feedback**

Kim (2017) found that students in a graduate interpreting course valued the immediacy of synchronous feedback on certain tasks while they found delayed, asynchronous feedback acceptable on other assignments. The students were satisfied with automated feedback in at-home asynchronous assignments and appreciated targeted instructor feedback given after self-



evaluation and peer critique on online assignments. However, during class time, the students wished that the instructor had been able to provide more immediate feedback on live interpreting practice. The researcher suggested that because instructors cannot observe more than one group at a time, a teaching assistant could aid in giving more live feedback to students during practice sessions.

### **Peer Feedback**

Lee (2016) reviewed research on student perceptions of peer feedback, positing that commonly used research methods limit the insights about peer feedback that can be gained from results. For example, the use of small-scale, closed-ended questionnaires required students to respond to dualistic questions such as whether peer assessment was enjoyable, or whether or not students wished for more opportunities to give and receive peer feedback in university courses. Finally, Lee argued that researchers overlooked the differences in settings for peer feedback activities. In one exception to these purportedly limited methodologies, Fowler (2007) argued that peer feedback improved students' ability for critical self-analysis, that students learned about norms of interpreting from watching their peers, and that they used peers as role models. A primary challenge students highlighted was the difficulty of presenting negative feedback in such a way as to not offend peers. Iaroslavschi (2011) reported the same dilemma in learners. This fear was partially confirmed in Iaroslavschi's findings:

67% of our respondents never felt any resentment against a colleague due to a negative comment they were addressed. [However,] 24% of participants admit that if they did occasionally hold 'a grudge' against one of their colleagues it wasn't on account of the remark *per se*, but because of how 'it was made' (p. 240).

These findings indicated that most learners had a healthy outlook on criticism, yet there may have been a need for initial modeling of courteous feedback. Interestingly, 77% of respondents in the same study admitted that positive feedback from peers boosted their confidence to a small degree, but not enough to compensate for the negative feedback received from course trainers. In conclusion, the researcher discussed a tendency for students to place more weight on trainer feedback than on peer feedback as well as a potential tendency to assign more weight to negative feedback than to positive feedback.

Lee (2016) argued that whereas the high-pressure nature of instructor feedback can cause students to feel overwhelmed, peer feedback may help to improve confidence and motivation. Peer feedback among interpreting students can be given in real time during live practice sessions (synchronous) or can be given in a delayed manner when students are tasked with assessing recordings of peer performances (asynchronous). Both synchronous and asynchronous peer feedback may be given in person or via distance learning platforms. Some researchers have criticized the use of peer feedback because students lack the experience necessary to give high-quality corrections and suggestions to their fellow learners (Lee, 2016; Su 2019). These perspectives tend to also be reported in survey and interview data about student perspectives on peer feedback (Iaroslavschi, 2011; Su, 2019; Wen & Tsai, 2006; Wilson et al., 2015). However, Adcroft (2011) argued that “poor practice is the primary cause of poor outcomes,” suggesting that when students assigned low value to peer feedback, it may have been due to insufficient instruction and guidance on how students should give effective feedback to their peers (p. 408). Iaroslavschi (2011) reported that conference interpreter trainees gave less credence to peer feedback because peer feedback is “less specific; over focused on accuracy issues” (p. 238). Similarly, Su (2019) found that interpreting students tended to give their peers a disproportionate

number of comments on accuracy and were more likely to give vague, non-specific comments on presentation. These findings suggest that learners only had a partial understanding of how to give useful peer feedback.

Kim (2017) argued that peer feedback serves an entirely different purpose from instructor feedback because it encourages students to build a sense of responsibility and thereby also build their self-concept as interpreters. Peer collaboration and assessment were observed by the instructor and followed up with more targeted instructor feedback. Students reported that they benefited from the peer assessment as well as the instructor assessment, but that they did not value the online asynchronous discussion boards in which they were required to make comments and ask questions to peers as a follow-up to in-class discussions. The researcher posited that a learning management system (LMS) that allows for synchronous forms of online peer discussion might foster more enthusiasm for peer discussions outside of class. Judging by the positive experiences reported by students when it came to direct peer feedback during group practice sessions, Kim concluded that the primary benefit of peer feedback is to help students to collaborate and cooperate, a skill that other researchers have argued is highly valuable once students enter the professional field of interpretation (Lee, 2016; Şahin, 2013).

Beyond live feedback given by peers during class discussions and collaborative practice sessions, peer feedback can also take place in summative assessments that students are assigned to perform on their peers' work. In some cases, peer assessment can be used to determine students' final grades on interpreting exams. Lee (2016) explored student perceptions of the benefits and drawbacks of determining their peers' grades on a midterm interpreting exam. Students reported feeling worried because they were determining their peers' grades, yet in the same instance, their feedback itself was not being evaluated by the instructor, leading students to

elaborate on and explain their feedback to a minimal level. Positive experiences reported by students included a feeling of empowerment due to being entrusted with the responsibility of grading, an expanded perspective on interpreting assessment in general, and an increased reflection on their own learning. The researcher found that as a result of being tasked with grading peer exams, some students began grappling with what they perceived to be problematic assessment categories and engaged in critical thought about assessment. For example, one student left a comment that questioned exactly how fluent a rendering must be to be called fluent. In summary, Lee reported that students came to appreciate different aspects of interpreter assessment that they had previously not considered, opening their eyes to concerns about inter-rater reliability and rater fatigue. In spite of students' doubt in their own ability to rate peer performances, they showed appreciation for being given experiential and procedural knowledge about the assessment process itself.

### ***Training Students on How to Give Helpful Peer Feedback***

Some educators have argued for using student-devised assessment criteria in order to keep learners invested in the evaluation process (Han & Riazi, 2018). However, many researchers have asserted that, at a minimum, students should receive explicit instruction aimed to help them understand the rationale behind criteria used for assessment (Fowler, 2007; Lee, 2016; Su, 2019). Beyond the initial introduction to the criteria, students are typically guided through hypothetical peer assessment scenarios so that the instructor can monitor for understanding and help students to refine their peer assessment tendencies. Fowler (2007) reasoned that once students have a base of knowledge, student-derived criteria can be incorporated as students learn to identify limitations in commonly applied reference criteria.

Reinholz (2016) described a procedure for training students to give effective feedback even as they function within the limits of their growing knowledge:

students are exposed to a variety of examples [i.e., sample interpretations], which helps them see gradations in quality. In contrast, exposing students to model solutions alone may make it difficult for them to determine what makes the solutions good (limiting goal awareness). When students are able to compare different solutions to the same problem, it is easier to see the strengths and flaws in the solutions. Such experience, even with hypothetical work, can help students develop deeper conceptual understanding. (p. 306)

### **Self-Assessment**

Because self-assessment has been shown to be a critical element of interpreter education, the same process can be used to arm learners with criteria for self-assessment (Li, 2018). Wu and Liao (2018) provided a model for teachers instructing students on assessment criteria and then gradually backing away to play a facilitating role as students critique their own or others' performances and brainstorm to find ways to improve interpreting strategies.

Self-assessment is performed by learners on their own performance and development, often following guidance and cues given by the instructor or trainer. Self-assessment by interpreting students can range from general self-reflection to performing fine-grained analysis on recordings of their output. Li (2018) affirmed that self-reflection and self-regulation are an integral part of professional competence for interpreters and therefore should be included among the fundamental aims of interpreter education. Crezee and Marianacci (2022) stated that self-assessment should be designed into interpreter education in such a way that learners have positive attitudes toward self-criticism, so that once working as professionals, they will be in the habit of evaluating their own strengths and weaknesses, as well as continually recognizing the

need to update their knowledge. Self-regulation, the same authors argued, is “a deliberate, non-automatic ability which needs to be both permitted and fostered” (p. 21). In other words, it is incumbent on instructors to foster the development of useful self-assessment through proper task design, and by seeking to put the responsibility on students to be autonomous learners (Lee, 2016).

Wu and Liao (2018) presented a self-assessment model designed to help students to overcome the disadvantages associated with interpreting into their B language: first, students transcribed their own output in a recorded interpreting task, identifying strengths and weaknesses, revising and improving the transcript without consulting external resources, and only then did they check external resources to further refine the revisions to their transcript. Finally, students compared their transcript to a small corpus of professional interpreters’ performances on the same interpreting task. The authors recommended that students look to dictionaries and examples from professional interpreters only after the first three steps have been performed, allowing students to first apply strategies to help them give better renderings within their current level of knowledge of the B language. The authors concluded by arguing that student interpreters can reference the results of these five steps for self-assessment to inform which interpreting strategies will best help them to solve and prevent problems and maximize the effectiveness of their renderings into a B language.

Bates (2018) proposed that effective self-assessment could potentially take the place of mentorship from instructors. Along these lines, Fitzmaurice (2018) investigated a semester-long interpreting course in which students received no instructor feedback during the semester but were instead encouraged to seek answers themselves and master the art of self-assessment. Although student reflections at the end of the course included an appreciation for the importance

of self-assessment, students reported that they ended the semester feeling frustrated, having desired clear external feedback for improvement. Although self-assessment was seen by participants as valuable, learners saw instructor feedback as necessary in addition to self-assessment.

### **Scalable, Less Scalable, and Non-Scalable Feedback**

Student interpreters require consistent, individualized, and specific feedback (Li, 2015; Wu & Liao, 2018). The more individualized and detailed feedback is, the less scalable it is likely to be. However, the advantage of scalable feedback is that it can be given to a large group of learners with a disproportionately small increased demand in resources. For this reason, most scalable feedback in interpreter education is automated. A clear example of scalable feedback is automatic indication that multiple-choice answers submitted online are “correct” or “incorrect.” Other examples of automated feedback in interpreter education include self-guided assignments and online terminology quizzes with immediate feedback.

Moreno et al. (2011) studied the outcomes of a web-based training to give core theoretical knowledge of interpreting to bilingual medical staff who were already acting as *ad hoc* interpreters. The researchers were also unable to allocate resources to assessing the non-English language proficiency of the bilingual staff beyond a scalable, one-time test of baseline linguistic ability and medical vocabulary. These results, along with the findings of Gambrell and Lesch (2021), suggest that implementing high-quality interpreter education faces logistical challenges; the solutions that have the highest degree of scalability do not allow trainees to apply or practice skills, nor do they involve adequate assessment of linguistic ability. One potential solution to these setbacks is in outsourcing language-specific assessment to third parties, as done by Crezee (2015) in a language-neutral interpreter training program. This solution was shown to

function best for providing summative feedback, whereas formative feedback was best provided in language-specific study groups.

### **Outcomes of Feedback in Interpreter Education**

The sections below detail how different types of feedback in interpreter education have been shown to impact student development of interpreting skills and self-efficacy. In broad terms, the effectiveness of feedback can be evaluated based on changes in student performance or based on student reports of how feedback was received and whether it affected the gap between a student's actual ability and a target level of ability. Because feedback can be embraced, rejected, adapted, or simply ignored, feedback can be discussed as having negative outcomes, positive outcomes, or as being inconsequential to student development.

### **Outcomes of Feedback Related to Student Interpreter Self-Efficacy**

While discussing meta-analyses on the power of feedback in education, Hattie and Timperley (2007) found that feedback improves self-efficacy when it fosters students' taking responsibility for self-monitoring and self-regulation. As a result, they argued that when instructor feedback assumed a strategy of surveillance, control, and or punishment and reward, it undermined student motivation and engagement. The authors argued that the focus of some feedback can indeed be on the correctness of responses; however, this type of feedback was found to be more effective when building on tasks previously completed by students and to be best given during tasks that specifically challenge student knowledge but that have a low level of complexity. Kuwahata (2005) similarly recommended giving feedback on correctness in tasks of low complexity in order to avoid the cognitive load that would be placed on students if that same feedback were given after an interpreting task of high complexity. This consideration of cognitive load was also made by Wu and Liao (2018), who recommended that teachers give



students feedback on their interpreting processes rather than on the final content of their performance. The authors found that giving feedback on process rather than product promoted student self-regulation better than did granular feedback on correctness.

### **Outcomes of Feedback Related to Student Interpreting Skill**

Fowler (2007) argued that summative feedback can be used to audit student progress, but that it is not sufficient in promoting further skill development. Fowler concluded that interpreting students should assign the highest priority to learning, knowledge, and skills, rather than to mere grades. Klimkowski (2015) contended that focusing solely on formal assessment is not effective in interpreter education “since it has not much to do with the main educational and professional objectives of the T&I classroom: developing competences and expertise, self-regulation skills” (p. 293).

Al-Rubai'i (2009) gave examples of targeted feedback on cognitive skills (attentive listening, analysis, etc.) in monolingual tasks before these skills were applied in interpreting exercises. For example, students reproduced a synonymous version of the source material in the same language as it was given in order to check the performance of their memory before rendering the segment into the other language. In this way, instructor, peer, or self-feedback was aimed to improve memory before students made decisions about how to render the messages into the other language. Al-Rubai'i presented this approach as a potential way to help students break down the complexity of consecutive interpreting so that weaknesses and opportunities for improvement could be parsed out and addressed individually.

Crezee (2015) presented a model for a language-neutral course on medical interpreting in which different forms of feedback were outsourced to expert parties. For example, linguistic feedback was outsourced to master language specialists who rated interpreting exams remotely.

In addition, students were encouraged to form study groups with students that interpreted in the same language pair to promote collaborative language study. When it came to feedback on professional practices and field-specific knowledge, the instructor promoted learner responsibility by organizing an interdisciplinary collaborative workshop with other pre-professional students going into health care fields such as speech therapy. Participants simulated interpreted speech therapy consultations with the pre-professional speech therapy students and reported that it was helpful to discuss and resolve potential problems that arose in the simulated scenarios. Lastly, the instructor tasked students with observing professional interpreters and writing up a reflection in which they assessed the professional's interpreting skill and management of the interpreting session. The instructor then provided feedback, reinforcing and adding to what was written and sometimes providing alternative perspectives on the student evaluations of the professionals they had shadowed. In these ways, Crezee entrusted learners with responsibilities that simulated real-world professional practice and situated them to receive feedback from a variety of sources. Although Crezee measured the effectiveness of this training approach by presenting written student feedback reflecting on the workshop, results were quite positive and reflected that students perceived a need for more of this type of collaborative, interdisciplinary training to prepare for the complexities of real-world encounters.

### **Gaps in Research on Feedback in Interpreter Education**

The present study was aimed to address a need for more research on how medical interpreting students experience feedback and evaluate the ultimate outcomes of that feedback. In a study that found dissonance between instructor and student perspectives on feedback, Adcroft (2011) called for academics to review their own beliefs, behaviors and practices surrounding feedback in order to address the dissonance between those practices and student

expectations. However, before this can be done, further investigation is necessary to understand what those expectations are and how students experience feedback practices as they stand. In interpreter education research, student perspectives on feedback have been addressed by studies such as Takeda (2010), who found that students desired better feedback on the processes involved in interpreting, more practical feedback on market realities of the profession, and feedback to address the unique needs of specific language combinations. Few studies since then have focused on feedback in interpreter education beyond seeking to measure the impacts of feedback on samples of student interpreting performance. Even fewer studies on student experiences of feedback have focused specifically on the fast-growing field of medical interpreter education. In the next chapter, I will discuss how a Spanish medical interpreting course provided the setting for the present study on how students perceived the effectiveness of feedback given in the course.

### **Chapter 3: Methodology and Participants**

The present study took place during and immediately following a semester-long undergraduate course on medical interpreting at Brigham Young University. Participants were students enrolled in the course during the Fall 2021 semester, eight of whom agreed to participate in qualitative interviews after the conclusion of the semester. Because I, the researcher in the present study, was also the instructor for the class, I made it clear that agreeing to be a participant or to be interviewed would have no impact on students' treatment in the class. Interviews were scheduled after final grades were posted and interviewees were compensated for their time. My qualitative analysis focused on how the interviewees described what they personally considered to be the outcomes of the class and whether feedback given as part of the course was associated with their personal learning experiences, their development of interpreting abilities, and their experiences during the volunteer interpreting hours that they completed in the community.

This chapter gives a general overview of the Spanish medical interpreting course, its design and intended outcomes, a description of weekly assignments and work completed by students, and a typology of the feedback routinely given in the course. The chapter then gives a description of participants' backgrounds. This chapter concludes with a description of the procedure I followed for qualitative data analysis and a note about researcher bias.

The present study aimed to investigate the following research questions:

1. How did different forms of feedback given in this course influence students' self-efficacy in the following contexts:
  - c. in interpreting exercises?
  - d. during real-world volunteer hours?

2. How did different forms of feedback given in this course influence the development of student skills in the following categories:

- f. domain-specific knowledge and vocabulary?
- g. controlling segment length, intervening, and clarifying?
- h. memory and note taking?
- i. delivery and presentation?
- j. understanding the constraints of the interpreter's role?

3. Which forms of feedback did students find most helpful, and why?

### **Spanish Medical Interpreting Class**

#### **General Background**

The Spanish medical interpreting class involved in the present study was developed as an outgrowth of a *Spanish for the Professions* course at the same university. Medical interpreting was chosen as a focus for this class to provide opportunities for those at the university interested in pursuing medical interpreting as well as to promote better bilingual health communication in learners' present and future communities. Before the participants in the present study were permitted to enroll in the Spanish medical interpreting course, they were required to complete two prerequisite courses: an advanced Spanish-language grammar course and *Español para las Profesiones Médicas* (Spanish for the Medical Professions), which overviewed medical specialties and highlighted cultural and public health topics for Spanish-speaking patients in the United States. In teaching the medical interpreting class I relied on insights from my five years of experience as a medical interpreter, experiences as a professional medical interpreter while I taught the course, formal training in curriculum design and assessment, and previous experience teaching the same course in previous semesters.

## **Course Design and Layout**

The 16-week Spanish medical interpreting course followed a hybrid format, including online asynchronous assignments submitted throughout the week and mandatory attendance at a weekly class meeting. Students submitted all weekly assignments through Canvas, an online learning management system that also housed their grades and all materials associated with the class. Once a week (excepting the week of Thanksgiving) the class met for seventy-five minutes over Zoom for live discussion, small-group practice, and skill workshoping.

### ***Course Objectives***

Weekly assignments in the course followed a similar practice format each week, with other writing assignments and discussion topics that varied week-to-week. The course objectives stated that by the end of the course, students would be able to: (1) effectively interpret between English and Spanish in medical settings, (2) employ techniques to overcome setbacks in communication while interpreting, (3) navigate ethical dilemmas faced by medical interpreters, and (4) identify how they best learn terminology in order to make it a lifelong study.

### ***Weekly Class Assignments***

Class assignments were primarily centered around a new practice dialogue each week of the sixteen-week semester, excluding one week of Thanksgiving holidays and one week of final exams. Each of the fourteen practice dialogues centered on a fictional patient and were recorded in a naturalistic manner where a voice actor with extensive experience as a practicing MD asked questions to a patient and finished the interaction by giving medical advice as they might have in a real encounter. The dialogues were designed to imitate real-world bilingual health care encounters for which the students could act as interpreter. Each practice dialogue was used for interpreting practice by students in a platform called GoReact, which would record the practice

session and facilitate peer and instructor access to the video, as well as giving students access to their own recordings for use in subsequent assignments. After each utterance, the source material stopped playing and students would be prompted by a black screen to repeat the English segments into Spanish and vice versa. The dialogue source material would automatically continue to play after the pause ended. I (the instructor) chunked the dialogue into segments based on when speakers might pause in typical interpreted health care consultations and programmed the length of pauses according to how long I took to interpret each segment slowly and added an average of four extra seconds to long segments to allow students to take notes to support memory. The recording of the student practice in GoReact was continuous and submitted by the student after the last segment was interpreted. Including the built-in pauses, practice dialogues had an average duration of twenty-five minutes.

Below is a description of each assignment, to show the sequence of work completed by students in Canvas in a typical week.

**Table 1**

*Flow of Weekly Assignments in Medical Interpreting Course*

Assignment	Description	Deadline and Requirements
STEP 1: First attempt interpreting the week's dialogue	Students completed a "cold run" of a practice dialogue (i.e., they were given no information on the contents of the dialogue ahead of time).	Completed by or before the Tuesday class meeting. Submission of this assignment would unlock subsequent assignments for the week.
STEP 2: Transcript assignment, Part I	Only after completing the first attempt of the given week's dialogue, students would gain access to a verbatim transcript of the source material of the dialogue. Students would listen back to the recording of	Completed by or before the Tuesday class meeting, but only after submitting the first attempt of the practice dialogue.

	<p>themselves interpreting and transcribe highlight sections of the source material to become aware of exactly how they interpreted a given paragraph or utterance in the dialogue. Students would submit the transcript file that included their own transcription of how they interpreted the highlighted sections.</p>	
<p>STEP 3: Transcript assignment, Part II</p>	<p>Students were then required to show evidence that they researched unfamiliar medical terms and concepts that appeared in the dialogue, submitting a personal glossary of terms from the dialogue, or an annotated version of the transcript that included notes on medical terms in the dialogue. Students were encouraged to complete the assignment in one of these two ways, according to what best helped them to organize their findings after researching medical terms. Students were also encouraged to make note of reformulation or phrasing issues they encountered during the first attempt at interpreting, in order to be able to raise questions during the live class meeting for that week.</p>	<p>Completed by or before the Tuesday class meeting, but after Steps 1 and 2.</p>
<p>STEP 4: Terminology quiz</p>	<p>Five-question quiz with a five-minute time limit. Students would be given five medical terms taken directly from the practice dialogue, and in this closed-book quiz, would be asked to translate the medical term into the other language (Spanish or English). This assignment was designed to give students extra motivation to do a thorough job on Step 3.</p>	<p>Completed by or before the Tuesday class meeting. A set of possible acceptable translations for each term would become automatically visible to students upon submission of the quiz, but if their answers were not automatically marked correct due to being one of the programmed answers, the quiz would also be manually graded to any acceptable translation.</p>
<p>STEP 5:</p>	<p>Students were required to choose one peer's video to watch and to leave a</p>	<p>Completed by 11:59 PM on Tuesday night.</p>



Peer review of first attempt on practice dialogue	minimum of four comments on the video. Each comment was required to be time-stamped (i.e., in reference to a specific part of their peer's interpreting) and labeled to reflect that the feedback related to meaning (M), target language quality (TL) or delivery (D).	
STEP 6: Second attempt on practice dialogue	After completing Steps 1 through 5, students would record a second attempt of themselves interpreting the week's dialogue.	Completed by 11:59 PM on Wednesday night.
STEP 7: Leaving comments on one's own second attempt	Students were required to leave a minimum of four comments on their own second attempt video in GoReact. The comments were required to be time-stamped (i.e., in reference to a specific part of their interpreting) and were required to include a reference to what peer, instructor, or self-feedback they had implemented.	Completed by 11:59 PM on Friday night.

### ***Supplemental Assignments***

In addition to the seven steps listed above, students completed reading, writing and multiple-choice question assignments, all of which were based on a book written about techniques, standards of practice, and ethics for medical interpreters. The open-response writing assignments would include pages from the book to read before responding and were sometimes supplemented with other online sources and readings depending on the topic at hand. These assignments were designed to help students to be informed with relevant information prior to live class discussions about interpreting strategies, advocacy and role boundaries for medical interpreters, professionalism, and self-care for medical interpreters. These written assignments tapered off after the eighth week of the semester in order to encourage students to begin their volunteer interpreting project.

### ***Process-Based Evaluation and Progressive Difficulty of Practice Dialogues***

The first week of the semester, students watched a video walk-through of how to complete the practice in GoReact and how to use all the tools and extensions required to complete weekly online assignments. The first practice dialogue was half the length of the average practice dialogue, and students were told to focus on getting through the process and submitting a video on which to perform analysis. Practice dialogues were not graded for the accuracy and precision of student performance, first because of a limitation in resources to grade many hundreds of minutes of interpreting videos on a weekly basis, and secondly to encourage students to engage in a process of giving and receiving feedback on their interpreting practice as their skills and abilities grew. The practice dialogues with the longest segments and most medical jargon were introduced later in the semester as baseline skills had already been demonstrated by students. Each week, students were encouraged to use the practice dialogues to apply skills that had been newly introduced in class, such as consecutive note taking, memory-techniques and reformulation techniques for meaning-based interpretation. In this way, as students became more accustomed to the format of the practice dialogues, they were encouraged to experiment with new skills and techniques during practice, and to reflect on the outcomes of the new techniques in comments they left on peers' and their own recordings as well as in live class discussions. Additionally, the dialogues became progressively more demanding in the duration of the longest segments of speech that students were prompted to interpret. Whereas the first attempt of a dialogue may have had a 20-second segment as the longest segment, the second attempt of that same dialogue may have combined two long segments to create a 40-second segment. Students were therefore challenged to stretch their memory and note taking skills once

they were dealing with a dialogue where they were already familiar with the topics and prepared with relevant terminology.

### ***Formative Assessment***

Students were highly encouraged to develop self-awareness as interpreters by diagnosing the root cause of ineffective interpreting. For example, early in the semester, students may have assumed that if a word was omitted, it must have been due to not being able to recall an equivalent word in the target language. However, students quickly learned through their own experience that an omission may be due to a limitation in working memory ability. However, because each practice dialogue was uniformly time-limited for all students, any extraordinary struggle to interpret within the segment's time limit would also lead to omissions. Therefore, each student was able to become the expert in reflecting on whether a particular omission they caught in their practice was caused by a lack of target language vocabulary, a struggle to interpret within the time limit, or another cause. Students also gradually developed an ability to help their peers in diagnosing possible root causes for embellishments, omissions or distortions in meaning; for example, making comments about how a peer seemed to be struggling to read their notes and lost the overall picture of what was being said, or noting that it seemed like a peer was embellishing the meaning of a segment with extra adjectives and adverbs, seemingly to allow themselves time to process, and concluding the comment encouraging the peer to use other strategies to help themselves process without adding filler words to the rendering.

### ***Live Class Discussion***

After performing self-evaluation in Steps 1 through 4 before attending each week's class meeting, students would join the class meeting via Zoom and be put in small groups to discuss terminology and interpreting problems that arose in the dialogue. After the small group

discussion session, the instructor would address remaining terminology questions and highlight any complications that arose in communication in the dialogues and propose strategies to effectively support communication should these complications arise in real-world interpreting. The rest of the class meeting would include discussion topics for interpreter ethics and strategies, discussions based on student questions that arose during real-world volunteering, small group interpreting practice with peer feedback and instructor observation and feedback, and in some cases, special workshops on note taking, simultaneous interpreting, and sight translation and visits from guest speakers who worked in the medical interpreting industry.

### ***Criteria Used in Peer Review of First Attempt Video and Self-Assessment***

In the first week of the semester, students were introduced to the criteria used to provide constructive feedback on peer videos. The same criteria were used when students performed self-assessment on their second attempt video at the end of each week. In order to be introduced to the criteria for assessment, students watched a lecture video which gave the rationale for the criteria (listed below) and were given hypothetical interpretations as examples in order to have a discussion about how the criteria could be applied to give positive feedback and comments about room for improvement. Students were presented with the slogan “vague feedback is worse than no feedback” as a reminder to leave comments on specific moments in peer videos with concrete suggestions for improvement.

Students were required to use one of the following three labels on each comment they left on a peer video: meaning (M), target language quality (T), and delivery (D). These three categories were adapted from the three-category analytic rating scale Han (2017) proposed for evaluation of bidirectional interpreting. Students would use one of these three categories to tag the topic of discussion when they commented on a highly effective or less-effective

interpretation made by their peers. The students were prepared to use these labels by being presented with the information below. The instructor and TA would then leave follow-up comments on student videos in GoReact.

**Meaning.** “Meaning” is an adaptation of the information completeness category used by Han (2017). This category is defined as the inclusion of all ideas given in the source message. In order to give useful and actionable feedback, it was necessary to work based on the assumption that the source messages in practice dialogues had sufficiently stable intended meanings so that the students and instructor could evaluate the adequacy of interpretations. Due to the contexts presented in the fictional simulations as well as to the somewhat predictable question-and-answer format of health care consultations, a limited set of plausible meanings in the dialogues could be safely assumed for purposes of interpreting practice and class discussion. There were ambiguities that arose in the practice dialogues, due to the naturalistic semi-extemporaneous way the simulated encounters were recorded. These ambiguities were highlighted and discussed during class meetings to prepare students to navigate the ambiguous speech that might come up during their real-world volunteer interpreting project. Early in the semester, students were encouraged to avoid embellishing the meaning of what patients and health care providers might say by reflecting the same level of ambiguity in their interpreting or requesting clarification in a way that would not coach the speaker to answer a certain way.

A clear case of one of the following three deviations from the source message would warrant a “meaning” label:

1. Omission of a part of the source message
2. Addition of a concept not presented in source message

3. Significant transformation or distortion of the meaning that could be presumed to have been intended in the source segment

Within each peer review assignment, students were provided with the following questions to remind them how to use this tag: *Was any information from the source omitted in the interpretation? Did the interpreter add any information that was not explicitly stated in the source? Did the interpreter distort or change any part of the original message?*

**Target Language (TL) Quality.** A grammatical error could be tagged when the student rendering had a significant grammatical error that would be considered ungrammatical by a grammar reference for Spanish-language renderings or by an English-language grammar reference for English-language renderings. Students were also encouraged to offer suggestions regarding word choice and phrasing, acknowledging that these were constructive suggestions for target language use rather than being corrections in a strict grammatical sense. Within each peer review assignment, students were provided with the following questions to remind them how to use this tag: *Did the interpretation have a major grammatical error that would affect understanding? Could the phrasing have been more natural, native-like, efficient, or elegant? On the other hand, could an attempt to use elegant phrasing have modified or embellished the message? Could a more universally understood term have been used in place of a highly regional term?*

**Delivery.** Comments tagged under the Delivery category may have been in reference to hesitating filler words inserted by the student (i.e., filler words that were not present in the source speaker's utterance), hesitating pauses not present in the source, significant deviations from the tone and speed of the original speaker, and any other aspect of the student interpretation that could be considered a non-rendition. Within each peer review assignment, students were

provided with the following questions to remind them how to use this tag: *Did the interpreter add in any cases of "ummm" or other filler words or pauses that were not present in the source? Did the interpreter reflect the tone, speed, and emotion of the original speaker? Did the implementation of any new interpreting technique affect their delivery (i.e., note taking) and how might they avoid this impact on delivery in the future?*

### ***Volunteering Hours and Reflection***

Students were expected to begin performing volunteer medical interpreting in time to complete six hours in total by the last week of classes. Students filled out a log sheet for each interpreting encounter to ensure that all six hours consisted of active interpreting (i.e., excluding time waiting in the hallway, etc.). Finally, by the last week of classes, students were also required to submit a brief written reflection on what they learned during the volunteering hours. Students were reminded that this reflection was not to be a journal entry relating the events of the volunteering, but rather, students were asked to write between 800 and 1,500 words to concisely analyze two or three specific problems that arose during their real-world practicum and how effectively they dealt with these problems, connecting these experiences to interpreting theories presented in class assignments and discussions. Students were given their choice of three different prompts for the written reflection, according to which topics most interested them. The first option prompted students to relate their volunteering experiences to the interpreting strategies taught in the Spanish medical interpreting class, and reflect on successes, obstacles to communication, or observations about interpreting techniques and how those techniques impact the outcome of the session. The second option prompted students to reflect on two to three incidents that came up during volunteering relating to ethical dilemmas in medical interpreting (e.g., role confusion, challenges to impartiality or confidentiality, appropriateness of advocacy by

the interpreter, challenges to accuracy and precision, etc.). The third option prompted students to reflect on the supportive role interpreters can play for bilingual health care providers who have limited proficiency in the non-English language. This third prompt was developed as a new topic for reflection after many students discussed their own desire to provide bilingual health care, questions about the purpose of a medical interpreter when the parties being interpreted for have some extent of proficiency in the other's language, and questions of how health care institutions might ensure the quality of communication between limited-English proficiency patients and providers who are less dominant in the patient's language. In essence, this third prompt was a special prompt relating to the gray areas of the medical interpreter's role and was created in response to consistent student questions relating to these gray areas. No matter which prompt students elected to answer, the assignment required that they give concrete examples of experiences that happened while volunteering and provide their own commentary and analysis backed up by publications on interpreting theory and ethics.

### **A Typology of Feedback Given in the Interpreting Course**

I conclude my discussion of the overall structure of the course with a description of the types of feedback given in the course, as summarized in Table 2. All feedback types occurred on a roughly once-a-week basis, as described above.

**Table 2**

*Forms of Feedback Given in Medical Interpreting Course*

<u>Description</u>	<u>Formative vs. Summative</u>	<u>Given by whom</u>	<u>Synchronous vs. Asynchronous</u>	<u>Time sensitivity</u>	<u>Scalability</u>
Transcript Assignment	Formative	Self	Asynchronous	Most often completed by students	Fully scalable (can be completed by



				immediately after first attempt (“Try 1”) at interpreting the given week’s dialogue	each individual no matter the class size)
Transcript Research	Formative	Self	Asynchronous	Most often completed within same day as first attempt of interpreting the given week’s dialogue	Fully scalable (can be completed by each individual no matter the class size)
Feedback on Terminology Quiz	Summative	Automatic “possible correct answers” programmed in Canvas by instructor, and comments made while manually grading any answers marked as potentially incorrect by Canvas.	Asynchronous	Manual grading most often completed within 24 hours of quiz deadline	<p>Partially scalable - Could be fully scalable if the automatic list of acceptable translations were expanded to be as comprehensive as possible and students could self-evaluate the acceptability of their translation from there.</p> <p>This form of feedback was less scalable in the way it was given in this course: To make it a summative assessment with</p>

					points assigned for acceptability of translations, manual grading was required for all answers that did not match the programmed answers that Canvas recognized as “correct.”
Peer review of first attempt	Formative	Peer	Asynchronous	Completed by the night of the same day video was due	Somewhat scalable but being able to match each person to a peer would become more difficult the bigger the class became.
Instructor/TA comments on first attempt videos	Formative	TA and/or instructor	Asynchronous	Completed by the time that week’s peer review was due, in order for comments to be seen by students along with the peer comments	Not scalable - Instructor and TA were required to watch student videos and leave individualized feedback, or to provide follow-up clarification to peer comments that were left on videos, to further clarify or emphasize what was said in peer comments.

Live feedback during small-group practice	Formative	Peers and Instructor or TA	Synchronous	Highly time sensitive, occurring during live meeting immediately after a student's interpreting turn ended	Not scalable- Instructor and TA would be present in certain breakout rooms in Zoom and could only give feedback on what they heard before moving to a different breakout room.
Q+A with instructor (or bouncing ideas off everyone including peers and TA) in front of full group during live class	Formative	Instructor (and/or peers, TA)	Synchronous (and asynchronous when recording was made available)	Highly time sensitive if students wanted to bounce an idea off the instructor, TA or peers, but could also be consumed in the form of the Zoom recording after the fact.	Not automated, but more scalable because the whole group can benefit from being present for ideas to be bounced off the instructor or brought to the whole group for discussion. Q+A sessions and class discussions could also be recorded, to be scaled up to benefit any parties who were not joining the Zoom meeting live.
Self-comments on second attempt ("Try 2") at	Formative	Self	Asynchronous	Completed within 2 days after the second attempt video	Scalable - A group of any size could be given a set of criteria with

interpreting the week's dialogue				was due, but most often completed immediately following completion of the second attempt.	which to self-evaluate
Reading quizzes and written exam	Summative	Instructor	Asynchronous	Exam taken at home and graded within one week after deadline.	Scalable- Automated feedback in Canvas (terminology questions were manually graded due to being open-response translation questions, but could be made completely scalable if they were multiple choice like the book questions were)
Oral Final Exam (Interpreting a new dialogue)	Summative	Instructor	Asynchronous	Exam taken at home and graded within one week after deadline.	Not scalable- A human instructor must watch each student's video to evaluate graded items in the dialogue, especially because the exam allowed for interpreters to make corrections during the last 30 seconds of the recording.

## **Participants**

An overwhelming majority of study participants planned on entering health care professions and wished to become bilingual staff members (i.e., giving care directly in Spanish) or dual role bilingual staff members (i.e., performing the functions of a nurse, physician, etc. in English and Spanish, but qualified to provide interpretation for monolingual staff members as needed). Aitken (2019) found that medical students who speak Spanish tend to act as *ad hoc* interpreters in free clinics and other settings, mirroring what participants in the present study reported to have experienced in their jobs, volunteer work and internships.

### **Linguistic Background of Participants**

All participants in the present study were native speakers of English. All but one of the participants reported learning Spanish while serving a mission for the Church of Jesus Christ of Latter-Day Saints in Spanish-speaking communities. The one remaining participant was raised as a bilingual speaker of English and Spanish in the United States and Spain. I did not perform a baseline Spanish-language proficiency evaluation on students as a part of the medical interpreting class, instead accepting the completion of the two advanced prerequisite courses as sufficient proof of linguistic proficiency. The American Council on the Teaching of Foreign Languages (ACTFL) recommends that medical interpreters have a minimum level of Advanced Mid proficiency in their working languages, often requiring that they study their second language at the university level or otherwise have significant contact with the language (ACTFL, 2012; ACTFL, 2015). The National Board of Certification for Medical Interpreters requires that candidates for national certification receive a score of Advanced Mid or higher on the Oral Proficiency Interview (OPI) developed by ACTFL (NBCMI, 2016). Data obtained from the BYU Department of Spanish and Portuguese indicate that of 815 graduating seniors majoring in

Spanish (Spanish BA, Spanish Teaching BA, Spanish Translation BA, and Spanish Studies BA [second major]) who took the OPI from Fall 2015 through Spring 2021, 44% scored Advanced Low or lower, whereas 56% scored Advanced Mid or higher. However, when the 113 Spanish Translation majors were separated out from that total, they scored higher as a group than other majors, with 24% scoring Advanced Low or lower, and 76% scoring Advanced Mid or higher. These data are at least suggestive that students with an interest in translation or interpretation tend to have stronger speaking proficiency in Spanish than do other majors. It can therefore be assumed that a majority of the students in the class could satisfy the minimum level of Spanish oral proficiency required to enter the medical interpreting profession in the United States.

### **Interviewees' Level of Prior Experience with Medical Interpreting**

To protect participant's privacy, I assigned a pseudonym to each interviewee. Below is a brief description of each experience interpreting prior to enrolling in the medical interpreting course.

**Table 3**

#### *Interviewees' Previous Interpreting Experience*

Interviewee Pseudonym	Previous Interpreting Experience? Yes/No	Type of Experience
Peter	No	-
Angie	No	-
Liz	Yes	Volunteer (less than one year)
Kenneth	No	-
Jack	Yes	Volunteer (over two years)
Jenna	No	-

Devon	Yes	Independent Contractor (less than one year)
Tracy	No	-

## **Qualitative Study Methodology**

### **Sources of Information for the Study**

I conducted qualitative interviews with eight participants after the semester had concluded. The average interview lasted 45 minutes and was semi-structured, following a set of questions (see Appendix A) but allowing interviewees to go deeper into any topics that involved experiences that they wished to share. Each interviewee participated in the interview voluntarily on their own time and was compensated with an e-gift card (see Appendix B for Institutional Review Board approval). The only additional source of information for qualitative analysis in the present study were students' written reflections. Each student submitted one written reflection on what they had learned from their real-world volunteering experiences. I included these as an additional source of information because the reflections often expanded on experiences mentioned by the interviewees. Because the reflections focused on volunteering experiences rather than experiences of feedback in the class, I only included reflections written by interviewees.

### **Qualitative Analysis**

The interviews were transcribed and thematically analyzed according to the procedures outlined in Merriam and Tisdell (2016). After reviewing the interview transcripts and written reflections multiple times, I developed a list of recurring ideas that had emerged as potentially important. I grouped these recurring ideas into loose categories which I continued to refine as I analyzed each interview and reflection individually as well as compared to the data set as a whole. I then compiled the interview transcripts and student reflections in Consider.ly, a platform

designed for the analysis of qualitative data. I finalized a list of eight emergent themes and coded the data with tags for each theme. Next, I used Consider.ly to retrieve the coded passages. After reviewing each coded passage, I grouped the recurring themes into three overarching categories, some of which involve multiple subcategories. For each category and subcategory, I created a preliminary analysis in memo format. These memos guided the findings of the study, which are reported in Chapter 4.

### **Researcher Biases**

I conducted the present study in the spirit of hearing from students about what the outcomes of the class were for them and how it related to their own values and goals. During the interview process, I let participants know that my questions may not elicit the information about their experiences that they wanted to share and encouraged them to bring up the experiences that were relevant to them even if not prompted by the interview questions. In the end, I cannot avoid that I was the instructor for the class, and my experiences designing and teaching Spanish medical interpreting in past semesters likely colors my understanding of participants' reported experiences. In addition, I conducted this research drawing on my own experiences in medical interpreting and in my self-assessment of how I perform that job, which may give me blind spots in what I look for in students' experiences in acquiring this skill. I may have placed undue emphasis on my own training to be a medical interpreter and the measures I have personally taken to deepen my B language proficiency. It is possible that I neglected to investigate aspects of student experience that did not relate to my own past experiences. Furthermore, I have participated in and been shaped by numerous interpreter training programs, as well as by my own experiences as a professional medical interpreter. I have a personal bias that standards need to be raised for medical interpreter training, and that entry in the field of medical interpreting should



include higher standards for baseline language proficiency, obligatory language-specific interpreting workshops, and more rigorous testing. In carrying out the present study, I have sought to look to a rich variety of outside sources to frame the observations that I make, but I ultimately cannot escape the role that I played as the instructor of these students, which should be taken into account when my descriptions and commentary are read.

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## Chapter 4: Results

In this chapter, I will report on overarching themes in the experiences reported by interviewees. To compile these findings, I coded passages in transcripts of the eight qualitative interviews as well as in the written reflection completed by each interviewee as part of the interpreting course. I will present a discussion of results related to each research question and its subcomponents.

**Table 4**

*Overarching Themes Identified in Interviews and Student Reflections*

Theme	Number of Passages Coded
Self-Efficacy in Interpreting Exercises	23
Self-Efficacy in Real-World Volunteer Hours	37
Domain-Specific Knowledge and Vocabulary	50
Controlling Segment Length, Intervening, and Clarifying	16
Memory and Note Taking	13
Delivery and Presentation	15
Understanding the Constraints of the Interpreter's Role	29
Forms of Feedback Students Found Most Helpful and Why	32

### **Outcomes of Feedback Related to Student Self-Efficacy in Interpreting Exercises**

Students tended to refer to their estimation of their ability to interpret in terms of “confidence.” I have reported my findings about students’ feelings of preparedness and situation control through the lens of self-efficacy rather than confidence. The context of each student's use of the term “confidence” will be examined to differentiate cases where they refer to confidence (i.e., positive self-perception) as opposed to self-efficacy (i.e., capacity to do well and problem solve while actively interpreting).

## **Improvement of Self-Efficacy Through Repetition of Interpreting Exercises**

To varying degrees, all eight interviewees reported that the weekly flow of interpreting exercises and supporting assignments led to a feeling of steady improvement and increased self-efficacy. Repetition reportedly helped students to feel less overwhelmed; instead, they were able to appreciate their own progress. Along these lines, Kenneth responded that “having the initial recording and then having to do it again [was] super helpful, because I think it was very good to see what kind of growth I was able to have.” In connection to feeling less overwhelmed, Angie responded that having a second chance to interpret the same dialogue

makes you not feel . . . as terrible, especially in the beginning, because you're like, oh, I've done this before. . . So I think . . . there's a little bit of a confidence boost in [realizing], oh, I'm learning, you know?

Angie found that after identifying gaps in her knowledge on the first attempt, being given the chance to apply the newly acquired knowledge helped her to see that her abilities were improving, remarking that she would think to herself, “I've learned some things from the first time, and I know how to say maybe this phrase or that phrase.” Repetition in exercises allowed students not only to feel encouraged, often due to feeling more capable during the second attempt, but also to analyze and compare their two performances by the end of each week.

## **Longitudinal Self-Assessment in Interpreting Exercises**

Over the course of any given week's assignments, students were required to compare their own first attempt video to the corresponding second attempt video and identify specific cases in which they implemented feedback to improve the accuracy, target language quality, or delivery in their interpreting. The requirement to specifically focus on a limited number of examples may have allowed students to avoid feeling overwhelmed by helping them to track

their progress in a focused manner, as illustrated by Pete when he reported that “almost without fail, [analyzing my own second attempt] was rewarding because I saw things specifically that I'd remembered that I wanted to do better.” Similarly, Jenna reflected that

the dialogues kind of ended up building my confidence towards the end, instead of me constantly feeling like, oh my gosh, I have so much to learn . . . towards the end I was like, oh, look, I can actually do better and I'm getting better.'

I have reported these findings as self-efficacy because rather than speaking in terms of positive self-regard, students were reflecting on seeing and appreciating measured improvements in their performance. Jenna recalled that, over time, the interpreting exercises became less intimidating, and she could count on the fact that “I kind of knew what I was expecting, and I could fine tune the parts that I really need to work on” upon interpreting in the second attempt. A predictable cycle of weekly assignments allowed students to simplify the sense of nervousness that often comes from the uncertainty that interpreting involves.

### **Low-Risk Setting**

Each of the eight interviewees shared that they felt it was important to practice in simulated scenarios so that they could learn to address challenges and errors without putting real patients at risk. Jack remarked that he felt comfortable making mistakes during interpreting exercises because “it's a safe place. There's an added pressure, when it's real, of, if I make a mistake, it's unlikely, but it could have an actual real-life impact on someone. . . Whereas in an artificial environment, you don't have that pressure.” The more students were able to engage with authentic practice materials, the more students were able to learn from errors and preempt real-world challenges.

## **Learning to Problem Solve in Practice Dialogues that Simulate Real Encounters**

Devon, who was the only participant who had professional experience interpreting as an independent contractor, remarked that “I thought the dialogues were super, super accurately done to what a real-life situation would be like. . . it [felt like] a real-life situation.” Devon continued by stating that any term or situation that came up in the practice dialogue therefore “was something that I would actually want to know.” Liz, who also had volunteer medical interpreting experience, stated:

I liked that some of the dialogues had an older [patient] and some of them had a child with a mom and things like that because, you know, you see all of that. And so, for me, I think what always confuses me is when a parent is in the room with the child. I appreciated that you included different scenarios like that.

Kenneth, Jack, and Tracy shared comments which reflected a similar appreciation for the applicability of the knowledge gained through practice dialogues. These findings are in line with recommendations from Al-Rubai'i (2009) that once students have developed basic message transfer competence, practice materials should expose students to barriers to understanding and other complications that are likely to arise in the real world so that they can develop strategies to address them. Liz also appreciated that the practice dialogues

included some cultural things or some idioms that maybe you wouldn't know. It goes beyond just medical terms . . . because the doctor would say some random idiom and then you have to come up with how to say it in a way that they understand it.

Pete, who was one of the five interviewees who had no interpreting experience prior to enrolling in the class, remarked that he appreciated that the interpreting practice sessions involved “realistic dialogue.” Because the interviews were conducted after the end of the

semester, all students had interpreted in the real world in the volunteering assignment. Each of them valued having the chance to problem solve in simulated interpreting encounters that felt true to life. Additional student observations about how learning from practice dialogues felt useful in the real-world interpreting hours will be commented on in the section of this chapter that reports on student self-efficacy while volunteering.

### **Formative Feedback**

Although summative assessment was periodically performed in the medical interpreting class to give students a sense of accountability, the weekly practice dialogues received formative assessment only. In commenting on the practice dialogues, Angie reflected that if weekly interpreting practice were graded for accuracy, “that would actually make me more nervous and [make me] do worse.” Similarly, Jack observed that the class provided a setting where it was safe to mistakes, not only by providing simulated scenarios where no patients would be put at risk, but also due to involving a higher volume of formative feedback than summative feedback. Tracy, Kenneth, and Jenna also made observations about formative feedback providing actionable ways to improve without causing them to worry excessively about their grade in the class. These findings are in line with Kuwahata (2005), as well as Arnaiz-Castro and Pérez-Luzardo Díaz (2016), who argue that performance pressure can be detrimental to interpreting students if it is not mitigated by opportunities for them to receive encouragement and measure their progress.

### **Impacts of Feedback on Prior Level of Interpreting Confidence**

Liz described a “humbling” process through which she watched the recordings of herself interpreting and realized that she had been overconfident. She related:

I had a lot of moments I can just think of right now where I was probably overconfident because I'd reviewed the transcript. I was like, oh, I got it. And then during [my second attempt], I would . . . just forget. And so then in my Try 2 comments, I'd be like, still did not say this right.

She and Angie, who reported similar experiences, found that watching the recording of their second attempt video led them to realize where they had still not effectively interpreted, which they did not catch until they left comments on their own second attempt video. This case gives an example of how increased confidence does not always lead to better performance.

Jack shared a somewhat differing opinion, observing that the interpreting exercises helped him to build skill, but that confidence in his ability to navigate a real-world interpreting encounter could only be gained through real-world application. In the next section, I will discuss how the feedback provided by real-world volunteering experiences had the most noteworthy impact on student confidence.

### **Outcomes of Feedback Related to Student Self-Efficacy During Volunteering Hours**

This section focuses on student experiences as they completed the volunteering project. Most students gave six volunteer hours at local free clinics for uninsured community members. A smaller number of students provided interpretation at PA (physician assistant) schools or at health care jobs where they worked as dual role bilingual staff. Devon's hours interpreting remotely as an independent contractor during the semester were counted as his volunteer hours.

### **Confidence Without Self-Efficacy**

It must be noted that Jack's observation that real-world confidence cannot be gained without real-world experience must be taken into consideration alongside the first part of his comment, namely that interpreters need to build skill in a classroom setting before taking on real-

world encounters. When I asked Pete whether he would have been comfortable jumping into real-world medical interpreting prior to being a student in the interpreting class, he commented:

I think I would have offered myself up, but I think I would've quickly realized that I was not prepared . . . I would have put myself out there, probably, and done it, but I think after one session I probably would have been like . . . I really can't do this again. I'm not qualified.

This illustrates how feeling confident does not imply that one is prepared to interpret. These findings are mirrored in Moreno et al. (2011), in which a group of bilingual medical staff that received interpreter training reported no changes in confidence, nor did their levels of confidence after training differ from those of the control group. All groups reported high levels of confidence without regard for whether they were qualified to interpret.

It was my hope as the instructor of this class to invite students to reflect on specific approaches they took while volunteering and whether different strategies made a difference in the outcomes of each volunteer interpreting encounter. I asked specific questions regarding how students managed the pace of each session, whether they found it useful to avoid straying from a communicative 'conduit' role, and whether students felt they were prepared to manage medical vocabulary and interpret the pragmatic meaning of common language used in healthcare consultations.

### **Practice and Note Taking**

In her written volunteering reflection, Angie focused on strategies and skills that helped her to meet the demands of mediating real-world encounters:

In my first interpreting appointment, note taking was extremely important because the doctor went on for some longer stretches. He also ended up changing medication



instructions, which would have been extremely difficult to interpret had I not taken notes.

Note taking is an incredibly useful strategy, however, it is something that must be practiced before using in a real-life interpreting session.

At the end of the quote above, Angie mentioned that note taking must be practiced beforehand. Many other students mentioned the importance of practicing note taking before using notes in real life. This may explain why some students did not report as positively on taking notes in real-world encounters, and why some interviewees including Kenneth, Jenna, and Tracy reported that they still did not use notes in real-world interpreting. Liz and Pete mentioned that they were not in the habit of taking notes, but that they appreciated having the ability to use notes if needed. Devon, Jack, and Angie were the only interviewees who specifically mentioned using notes in real-world encounters. Differing experiences with note taking are discussed in the section below on memory and note taking.

### **Adaptiveness**

Jenna and Angie both reflected on collaborating with providers and patients while volunteering to overcome barriers to a patient's understanding of their interpreted explanations of medical concepts. Kenneth reported that the unpredictability in the practice dialogues helped him to learn to be adaptable in cases where he did not understand another party:

You have to be really good at thinking on your feet and . . . be very flexible, especially when you don't know what's being said or understand a hundred percent. [It was] very applicable to the real world setting because you do have to be on your feet.

Yuan (2022) listed adaptability as an important interpreter competence because of the instantaneity of interpreting. Kenneth then mentioned that clarification was one way to overcome challenges, especially in the real world where speakers can clarify themselves, stating:

beforehand I would just freak out if I didn't know a term and I was like, this is the end.

This is my fear. This is exactly why I shouldn't be interpreting because I don't know the word. [This class] showed me that you don't necessarily have to know all the terms a hundred percent. If you have a good baseline, then you can work your way through and figure it out.

Devon also shared thoughts about picking a point in which a student can jump into a real-world scenario and solve any problems as they arise, stating, “I would never suggest to someone that you should have to wait that long before you can feel prepared. You know, the best way is just to get more and more exposure.” Jenna and Angie mentioned cases that came up while volunteering in which a patient or provider did not understand their interpretation. They reflected that thanks to their clarification skills, they were able to work through these instances with the other parties involved and continue to effectively interpret.

### **Authenticity of Practice Materials**

Kenneth reported that both the format and the content of the practice dialogues aided him during his real-world volunteering hours, recalling:

when I went and did my interpreting practice . . . at the [clinic], . . . a lot of the terms that we saw in the practice were terms that we would hear from patients or terms that we would use. So it just kind of further showed me. . . they are things that you see every day.

Tracy reported seeing the importance of practice she had completed in class as well, stating:

I think I reached a point where I wasn't intimidated anymore, and I wasn't scared . . . because we had practiced. And we had talked about what it's going to be like . . . So then when I went and interpreted the first time, I didn't feel stressed at all.

When I asked her about what part of the preparation was most helpful, Tracy responded that “the practice is really what helped me improve overall and get used to what it's actually like. . . . I was like, I know what's going on. I know what I'm supposed to do.”

It should not be understated that these same students exhibited a high level of accountability in class work they completed, which may have influenced the connections they perceived between experiences practicing and experiences volunteering. Pete shared that “even though it's a fake dialogue, for me, it felt very real. Or at least I wanted to perform at a high level.” Kenneth reported feeling that all assignments in the class felt useful in the real world and cohesively prepared him to perform the volunteering hours:

I was never worried about getting all my work done in this class. [Instead, I asked myself], how is this going to benefit me? And what can I do as I'm doing the work so that I can be successful when I go to do my volunteer hours.... I felt like it was definitely more tailored toward student learning rather than aiming for . . . getting a specific grade.

Because each learner had goals that they wanted to achieve through class assignments, those who treated class assignments as preparation mentioned that practice and real-world interpreting felt similar.

### **Impacts of Real-World Case Studies on Decision Making**

Interpreting is a function which involves many judgment calls and in-the-moment determinations on the part of the interpreter (Angelelli, 2019). All interviewees reported to varying degrees that they found anecdotal scenarios and case studies brought up during live class discussion to be the most helpful feedback on how to navigate real-world encounters. Devon mentioned that whereas case studies could have been shared in pre-recorded videos, live interaction was important because students were able to present questions during class about

dilemmas that arose or might have arisen for them in real-world interpreting. Tracy shared that when “other students would ask about some experience they had while interpreting, [the instructor was] able to answer their question, that benefits everyone . . . I think that aspect of being able to have discussion is important.” Tracy was referring in part to these discussions when she mentioned that she did not feel stressed as she began her volunteer hours because “we had talked about what it's going to be like.” Liz, Devon, Angie, and Jack observed that case studies shared in class helped them to make decisions in real-world encounters, including when to intervene, how to act as a conduit, and how to encourage direct communication between provider and patient.

### **Outcomes of Feedback on Student Skill Development**

#### **Domain-Specific Knowledge and Vocabulary**

Background knowledge is a major factor that impacts the outcomes of interpreting (Kuwahata, 2005; Yuan, 2022). All eight interviewees mentioned the duration of the course as an important way to get exposure to more knowledge about medical concepts. When asked whether 16 weeks felt like too long to study medical interpreting, Tracy commented “having more weeks was very helpful [for] getting a lot of practice and a lot of exposure to different areas of medicine.” Along those lines, both Kenneth and Angie mentioned that interpreting each dialogue twice allowed them to study medical concepts they were unfamiliar with, discuss them in class, and reinforce that knowledge in the second attempt. All interviewees commented on how if the class had fewer weeks, it would have fewer dialogues and therefore less exposure to medical topics and fewer opportunities to expand knowledge and vocabulary.

Students were responsible for researching medical concepts, terms, or phrases that they did not understand in the dialogues, and those that they did not know how to interpret into the

other language. Each of the eight interviewees reported that self-feedback was the most useful for identifying where they had gaps in their knowledge, but some interviewees including Angie, Jenna and Kenneth mentioned that they were not confident that they had found a useful solution by doing their own research until they were able to get feedback on their findings from peers or the instructor during class. I will discuss both of these themes in sections below.

### **Discovering Gaps in Knowledge**

All eight interviewees commented multiple times on how one of the most important aspects of weekly assignments was that they were guided to discover gaps in their knowledge. The transcript assignment was mentioned most often in relation to this process, which consisted of students watching their first attempt video, transcribing selected sections of their interpreting alongside a transcript of the source material, and researching unfamiliar words or topics to expand their understanding and identify possible improvements for the upcoming second attempt.

Pete mentioned that he appreciated not having access to the transcript until after the first attempt, stating he loved that it was

immediately unlockable after you've actually completed it. Because I can totally see myself otherwise looking at it beforehand and just, you know [to] give it a peek beforehand and just prep myself for what to say, but that's not real life and that's not really how it goes.

In other words, students were required to interpret the first attempt without forewarning about the contents of the dialogue. This was another way the practice dialogues were designed to simulate real life encounters, in which there is a degree of unpredictability.

Jenna commented on the requirement to transcribe sections of her own interpreting, stating:

I thought it was so tedious. I was like, gosh, this is terrible. But then afterwards I was like, oh wow. I could see where I needed to change for the second dialogue. So, I think . . . the transcript was super helpful.

Likewise, when asked about this assignment, Jenna reported that the transcript assignment was tedious, but that it yielded benefits to such a degree that the amount of work required was ultimately justified. This perspective was shared by Devon, who reported that the transcript assignment involved the “right amount of work for each dialogue.” When asked about this assignment, Tracy responded:

I think actually writing down some parts, even if I forgot to say [them] was helpful . . .

That helped me more with the self-awareness. Even though I hated doing it, but I do think overall . . . it helped me.

In spite of the fact that all interviewees commented that there were major benefits to giving themselves feedback while completing the transcript assignment, Jack and Liz both felt that the assignment would have the same benefit without less tedium if they were only required to write down places where they felt they needed improvement. Jack explained in particular how it felt excessively time consuming and “like busywork” to transcribe chunks of his interpreting verbatim and asserted that a less-detailed self-assessment would have yielded the same benefits. These findings related to an observation from Hattie and Timperley (2007) that feedback “is most beneficial when it helps students reject erroneous hypotheses” (p. 91). Students’ comments on the transcript assignment align with Lee (2005), who reported that interpreting students found self-assessment to be time consuming and emotionally draining, yet also reported that it helped

them to analyze their strengths and weaknesses and taught them to monitor their own progress, leading to a net positive for learning outcomes.

Devon mentioned not only filling in gaps in knowledge during practice dialogues, but also tracking gaps in knowledge that he had become aware of in his real-world remote interpreting work, stating:

when I was taking your class, I had a specific note on my phone that during class, if I heard you say certain words, I would just write them down. I already knew of a lot of words that were hard for me because I had interpreted a little at that point. And any time I heard you say a word that I knew that I had struggled with, it was like, oh, I definitely really want to learn that. So, I would go way out of my way to try to learn those words, but then I would actually review that note that I made . . . frequently.

### **Filling Gaps in Knowledge at a Gradual Pace**

I asked each interviewee about whether they felt all 16 weeks were necessary in this class. Although some interviewees reflected that they may have been able to be confident enough to interpret in real-world settings in eight weeks or less, all interviewees mentioned in their response to this question that having an extensive amount of time in the course allowed them to build their knowledge at a gradual pace. Devon mentioned appreciating that the manner of vocabulary instruction from the instructor was

really spread out. You would send emails randomly from after work that would have certain words that you had used that day. And I'd be like, okay, well, this is definitely relevant because you use it. And then at the start of class, you would go over some tricky words for people. And then in class you would kind of sprinkle in some words. So I heard

them really sporadically and that actually helped me rather than just getting a big list and being like, memorize all these words because they're all super important.

Tracy recounted that the transcript specifically helped her to expand her vocabulary at a gradual and sustainable pace, remarking

we weren't learning hundreds of terms at a time. So I [expanded my vocabulary] just learning little by little. . . practicing them, [and] using them in class and in homework.

### **Differing Usefulness of Positive Feedback, as Opposed to Corrective Feedback**

Students generally reported feeling more interest in feedback on room for improvement than on positive feedback about something they had done well. This was illustrated by Liz and Jack's comments that they would have gotten the same value out of the transcript assignment if they were only required to take notes on where they saw room for improvement, rather than also transcribing things they deemed to be acceptable, "correct," or successful interpretations. In his interview, Pete mentioned that he did not remember any of the compliments he was given on his interpreting, and that he valued corrective feedback much more because it would help him to prevent future errors, stating that after corrective feedback, "I will not forget again." Tracy recalled, "I was more self-aware of the things I did wrong than the things I was doing well in my volunteering." This is corroborated in the findings of Bartłomiejczyk (2007), who reported a trend towards negative self-evaluation and an overemphasis on "correctness" in student self-assessment.

On the other hand, Jenna mentioned the importance of getting positive feedback from the instructor during the live class meeting, stating that it gave her and her peers reassurance that they were not "going off the rails." Likewise, regarding comments on his interpreting videos, Kenneth reported that he valued specific, individualized comments of praise from the instructor



and TA, especially early in the semester. He reported that these positive comments gave him a feeling of “relief” that he was on the proper trajectory in his interpreting practice.

### **Personalized Self-Feedback Systems**

Kenneth, Liz, and Devon reported developing a personal glossary which they added to during the transcript assignment and consulted regularly before the second attempt interpreting exercise. Devon stated:

I had my own way of keeping the words that I thought were significant . . . I would just write them all down. Then I would look at that before [my second attempt]. So I would make sure I had most of the base words from that transcript down. That helped with vocabulary a lot.

Similarly, Liz reported developing her own system for tracking vocabulary that she found useful, in spite of it not being a requirement for the class:

I would put the term I got wrong next to the one in the other language [in the transcript] . . . Then when I would review before Try 2, I would see those terms pop up in red as I would go through the dialogue. And then I feel like that helps me the most.

Kenneth also developed his own system for tracking useful vocabulary:

I just got a blank sheet of paper. And as I was listening to [my first attempt] and I would come to a term that I knew I had either gotten wrong or that I was like . . . Didn't like how I said that, then I would just jot it down on the piece of paper . . . And then I kind of just had a study list for myself that I could use for that [second attempt], and then also have a study list for just me and my future medical career of things that I'll easily forget or am not sure how to say.

### **Being Provided with Curated Materials, Including Vocabulary Lists**

Several interviewees highlighted the importance of knowing which terms were most important to know and useful in real-world interpreting. Both Devon and Kenneth mentioned that they got confirmation that terms were important because of having “used those terms consistently since then” (Devon). When asked whether memorizing a list is always unhelpful, Devon responded that if a list is well-curated, it is likely to come up in real-world encounters. At that point, Devon shared that it’s simply a matter of learning the terms, and to learn a term “it’s super important for me to apply it quickly and use it consistently.” Jack also mentioned that he did not feel that he had achieved “true knowledge and recall” until he had used a term on a consistent basis, and that using a term on a consistent basis is a way of knowing whether it was useful.

### **Time-Sensitivity of Feedback on Vocabulary**

Regarding the completion of weekly assignments, Pete mentioned “I would always do the transcript immediately after [completing my first attempt on the dialogue] so it was fresh in my mind.” When asked about whether she learned any additional information as a result of leaving comments on her own second attempt video, Jenna reported that leaving comments was not helpful to her, but that immediately after completing her second attempt on the practice dialogue, she would look back at the transcription of her first attempt in order to see how she had improved or where she could have further improved. In this way, she was able to pull out the transcript to see what she had said on her first attempt in moments of genuine curiosity immediately following her second attempt. She estimated looking at her annotated transcript in the moments following her second attempt to be of more value to her than leaving comments on her own video, which was required within two days of submitting the second attempt video.

All interviewees reported that they highly valued in-class peer and instructor feedback on vocabulary that had been researched for the transcript assignment. The live discussion element of this feedback was seen as essential to the learning that came from these experiences. This matter will be discussed in the section on co-constructed knowledge.

### **Terminology Quiz**

The weekly terminology quiz was required at the same time as the transcript assignment. It took five terms from the transcript of the dialogue and was designed to be taken after students performed research on medical terms found in the transcript. Devon and Kenneth mentioned that the terminology quiz provided them with motivation and accountability to be thorough in the research they performed for their transcript assignment. Student answers would be manually graded in case their answer was acceptable but did not align with the pre-programmed answers, but the answers were also given immediate automated feedback, and the instantaneous timing of the automated feedback provided students with multiple acceptable ways to say a term in the other language the moment after they submitted the quiz. Kenneth mentioned the helpfulness of the automatic feedback, reflecting that:

just being able to go back and see those [possible answers which popped up] since you always had a list of usually two to four options of what we could use, I always thought that was pretty helpful too.

The automatic feedback armed students with multiple ways of interpreting terms that appeared on the quiz.

### **Memory and Note Taking**

Two to three class periods in the semester were dedicated solely to note taking instruction and practice. After this, students were encouraged to continue to develop their own note taking

system by, at a minimum, using notes while interpreting long segments in the practice dialogues. The practice dialogues were designed to be progressively more challenging to memory, including segments that exceeded the length that the average student could keep in their working memory (i.e., 20 to 40 seconds of rapid speech). In her interview, Angie mentioned that her note taking practice paid off, stating that “in the actual [volunteering] appointments, I didn't have to cut anyone off because of the note taking.” She went on to observe that she did not see other interpreters using notes but that she felt that taking notes allowed her to “get through an appointment . . . pretty comfortably.”

There was variation in how much practice was reported to be necessary for students to feel comfortable using notes. Devon reported that he was accustomed to typing notes on the computer while performing remote interpreting, but after two in-class practice sessions, he began to use hand-written notes during the longer segments of the practice dialogues. He subsequently used handwritten notes in a remote interpreting session and reported that the note taking led to positive results in the session. Kenneth and Angie observed that further in-class note taking practice beyond the three class periods would not have been necessary because of the opportunity to use notes on practice dialogues twice a week.

Conversely, although some interviewees, including Angie and Pete, thought that note taking practice during class was the most beneficial way to learn, Jack felt that it was frustrating to experience the same setbacks during in-class note taking practice, and that “note taking practice should have been done so the instructor can see what mistakes are being made and address those specifically” rather than experiencing the same challenges during practice over and over again without seeing improvement.

Although most interviewees reported that the amount of time spent on note taking in class was sufficient, few students reported using notes during real-world encounters. Several interviewees mentioned a desire to get better at taking notes, implying that feedback on note taking is an area in which the medical interpreting class could be improved.

Jack made observations about his note taking:

I become a lot more accurate, and I can go for a lot longer [periods of time] . . . I basically give myself a skeleton to then get the whole phrase out, rearrange it in the most cohesive way, and then present that in a fluent manner, hopefully . . . I'm not perfect at that, but [it gives me an increased] ability to decide how I want to format things and present things.”

### **Controlling Segment Length, Intervening, and Clarifying**

The practice dialogue in this class had pre-set segments, and so longitudinal assessment was the primary way students were able to track whether they were handling long segments. Intervening and clarifying could not be performed in the pre-recorded practice dialogues and tended to be done in an overly casual manner when students were reading from a script in in-class interpreting practice. Therefore, the main way students learned about intervening and clarifying was through class assignments and discussion, and then through self-feedback on how students were able to control segment length during their real-world interpreting hours.

In her reflection on volunteering, Jenna wrote about chunking as a strategy of processing meaning, in which student interpreters only move on to the next “chunk” of information after they have understood or clarified the meaning of the “chunk” before it. Jenna wrote that chunking during her real-world experiences helped her “to create a more calm atmosphere for the patient to understand the provider and vice versa.” Not only did she receive feedback from the

provider for whom she was interpreting, but Jenna explored this strategy in the self-feedback given in her reflection: “It is to be noted, that these strategies could also cause problems if not used correctly and it is essential to be aware and focus on the two parties involved in your session.”

In his written reflection, Devon recalled that he had almost left an error in his interpreting, but when he decided to make a clarification, he discovered he had initially misheard the speaker. In feedback he gave himself on clarification in the form of the volunteering reflection, he wrote:

I learned a hard and embarrassing lesson from this because this could have been a serious mistake had I not clarified. The strategy I learned from this was to always clarify more than I think is necessary rather than less.

Through the feedback Devon obtained from this experience, he began to reflect on how it is not always clear when the interpreter should intervene and clarify, but rather it is a judgment call. Devon went on to reflect on his growing sense for when to intervene in real-world interpreting scenarios:

I realized that some patients might be scared to question authority and everyone in a doctor’s office or hospital might be considered someone of authority. So, a strategy that I realized from this was to wait and try to let both parties work out the issues on their own, but in the case that you see a blatant misunderstanding and there is no attempt at a clarification, then intervening by informing both parties of the situation is a good idea. Practice and experience is necessary for an interpreter to instinctively understand this balance between staying in your role and knowing when to jump in.

In a final example, Devon noticed that a patient was not answering a doctor's questions, and it was slowing down communication and possibly impacting care. He decided to intervene and ask the doctor to request that the patient answer his questions more directly. Devon later wrote: "While it was not strictly necessary, I felt it was important to achieve a fluid conversation and I feel that it was an effective way of doing this." In his interview, Devon also mentioned that one form of feedback that helped him to develop professional judgment on when to intervene was discussions during the class meetings. Devon appreciated being able to bring up real-world scenarios he had encountered and get the instructor's, and sometimes his peers', thoughts on what could have been done.

Liz stated that she felt prepared to either prevent long segments or resort to note taking. She felt prepared by the practice dialogues, stating that "we had examples in the videos of people who would just go on forever . . . and I became more confident [thinking] okay, if that happens, I have this note taking that I can do."

Angie mentioned resorting to note taking in both her interview and her volunteering reflection, yet she also wrote:

Another issue that came up in my interpreting session was retaining large amounts of information when patients went on rants. One patient in particular drove a phone call conversation in a completely different direction and began to tell an experience he had with a different provider, which was difficult to retain and forced me to ask for some brief repetition.

In other words, Angie reported to have used multiple strategies depending on the situation, and in her written reflection she focused on the need to be prepared with various options, each of which had been practiced in low-risk settings before being practiced in real life.

In her interview, Jenna recounted that while volunteering, she ended up “looking down and then when I needed them to stop, I would look up at them. And I didn't mean to do it, but I realized I was doing it and it helped them.” Jenna developed this strategy for controlling segment length in the moment but had been familiarized with the idea of the strategic use of eye contact from discussions that had come up in class.

### **Unique Tactics for Controlling Segment Length**

Jack reported that he used note taking skills he gained in the class not only for memory support, but also as a tactic to control segment length.

I used to have the pressure of, as soon as [speakers] stop talking . . . I need to interject myself really harshly, like cut them off and just start [interpreting] . . . But I've found that with note taking, it allows a natural process of people seeing me write to where they're not expecting me to just jump right in. And I don't feel that pressure on myself. So I can sit with what was said for a second. Make sure I understood what was said, and then formulate how I would say that, and then actually say it. and that's only four or five extra seconds, but because of the notes, it just creates a socially acceptable environment where someone needs to wait because it looks like I'm just writing things out and it might even just be little tiny scribbles that I'm writing at the end that don't actually mean anything.

They're just giving me a little bit of processing time. That's been helpful.

Jack's use of notes as a nonverbal cue to encourage speakers to pause was the most unique method of controlling segment length. Angie, Liz, and Devon mentioned that they relied on notes as a memory support when speakers shared long “rants.” Jenna and Tracy both mentioned that in real-world encounters, speakers paused frequently so that notes were not necessary, and that they saw introducing themselves and requesting frequent pauses as the most



important way of ensuring this would continue to happen. Devon had a unique set of tactics due to performing video remote interpreting. Because information would be lost if he intervened to ask a speaker to pause, he reported that he would wait for a pause in the conversation and ask the provider to remind the patient to pause more frequently.

### **Delivery and Presentation**

Kenneth mentioned that the practice dialogues required “a lot of critical thinking,” which put him in complex situations that challenged his ability to have smooth delivery in interpreting. This critical thinking can sometimes lead to an underemphasis on delivery by students. The interviews I conducted aligned with other reports that students overemphasize vocabulary and completeness, underemphasizing other aspects of their presentation such as mimicking the tone of the speaker, localizing the vocabulary to the dialect of the listener, and avoiding hesitancy or long pauses (Bartłomiejczyk, 2007; Han & Riazi, 2018; Lee, 2016; Lee, 2016; Su, 2019).

Perhaps due to his experience training other volunteer interpreters, Jack shared that “the big pitfall that I see most interpreters make, including myself, is a heightened focus on vocabulary [and] disregard for other skills of interpretation.”

To the degree that students focused on delivery rather than accuracy, the most useful form of feedback to improve delivery was reported to be listening back to one’s own interpreting videos. Liz mentioned that the self-feedback of listening to her interpreting videos helped her see where she could improve her delivery: “I would listen back to myself and I’d [think], oh, actually I could have said that way better.” Also in relation to listening back to his interpreting, Kenneth stated:

I think it mostly went back to the terminology . . . but there were definitely parts . . .

when you got the big chunk paragraphs and I was like, I know there were a lot of fluidity

mistakes there. And so then I would kind of work through those a little bit and kind of just practice how I could have said that.

Angie, among other students, mentioned she was more likely to look back on her videos for memory lapses (“things that I missed that I didn't realize I missed”) and accuracy. She did not report giving importance to delivery during practice, conflating the categories when asked about delivery compared to target language: “if it's good and the target language, it's most likely a good delivery. I mean, there's some extra stuff [regarding] delivery like tone and perhaps mimicking the patient, which you don't really do.” In other words, she acknowledged some aspects of delivery but did not report looking for places she could improve her own delivery, taking for granted that interpreting exercises by students tend to be delivered in a monotone voice. Fluency was the most commonly mentioned aspect of delivery, to the extent that students acknowledged it. For example, Tracy stated, “the transcription actually helped me . . . realize how I could be more fluid in what I said. Not be as choppy and stuff like that.” Because other students mentioned similar experiences, an overemphasis on accuracy and underemphasis on delivery may be possible explanation for why interviewees unanimously reported that watching their first attempt video was one of the most valuable activities for learning but did not report finding much value in watching their second attempt video. In viewing the second attempt video to do the self-feedback assignment, Kenneth reported feeling impatient and Pete reported feeling “burned out on that one video.” These perspectives were representative of all interviewees’ experiences giving self-assessment on the second attempt video.

In his interview, Jack mentioned his experiences helping other volunteer interpreters who seemed to have a sole focus on gaps in their vocabulary and postulated that improving delivery may be more appropriate for students to focus on only after they make initial improvements to

vocabulary. He stated that having a baseline knowledge of vocabulary “helps new interpreters to feel more confident in the vocab, [and then] they can actually focus on interpretation as a separate [skill].”

### **Understanding the Constraints of the Interpreter’s Role**

Angie recounted in the interview that “the class helped me be very comfortable with being in the conduit role,” representing a topic addressed by all interviewees regarding their real-world interpreting experiences. Interpreter ethics and role boundaries such as intervening and clarifying were addressed in the class through assignments and discussions, and then implemented and reflected on after the real-world interpreting hours. When students mention the “conduit role,” they are referring to the basic principle that medical interpreters should spend most of the time acting as the voice of those they interpret for, rather than inserting their own opinions or engaging in side conversations with one party or the other (Angelelli, 2019).

Devon mentioned the importance of hearing about my real-world experiences whenever ethical dilemmas and role boundary discussions would arise, reporting that he would think “she interprets a lot. She’s had experience in this and this. She can answer questions very comfortably.” Other interviewees reported that they relied on the experiences and principles I shared during class discussions, rather than book assignments on the same topic. For example, Jenna stated that while volunteering

I had a lot of people who tried to start side conversations or just talk directly to me. And so, I think your real-life examples or things you shared, like experiences from work or other colleagues, that’s what I remembered the most. And so I [realized], oh, this is like that story. I’m just going to not have this side conversation . . . We’ll just kind of direct it back to the doctor.

Tracy observed that class discussions led her to believe that “being the interpreter” was primarily about “not having a conversation with the patient,” in spite of providers attempting to engage her in side conversations. I asked each interviewee whether defaulting to a “conduit” role seemed to impact the outcome of interpreting sessions, or whether they had simply taken my word for it. Each interviewee answered in a similar manner: that whereas other volunteers engaged in side conversations and gave advice while interpreting, sticking to a conduit role tended to aid all parties in avoiding confusion. Liz observed:

Sometimes there's pressure for [the interpreter] to answer all [the patient's] questions. But then I have seen a lot of patients leave very confused . . . I've also done check out [for patients] and they'll be like, oh, but they told me this, this and this. And I was like, oh, who told you that? And it was like the interpreter. But then the doctor wanted to say something [different]. There's always just confusion if [interpreters] take on too many roles. As soon as I put a name to that through the class . . . that's when I started noticing it more.

Along similar lines, I asked Angie about whether she had taken my word for it, or had in reality seen positive or negative consequences from interpreters taking on a certain role. In asking this question to interviewees, I was hoping to discover whether they had internalized the feedback I gave to them during class discussion about roles of the interpreter, or whether they had also internalized feedback from real-world circumstances as they completed their service hours. Angie responded that when volunteer interpreters engaged in side conversations,

It just seemed to get kind of messy . . . The message would be very contorted if the interpreter stepped out [of their role] a lot . . . I was just observing [other volunteers as they interpreted] and I was like, okay, we just lost this part . . . [I noticed when] we were

in resource and they were trying to figure out some guy's pay stubs or bank statement. And the [patient] looked kind of confused or worried when the interpreter was having these side conversations with the people in the office about his finances. And it wasn't really needed . . . The interpreter was trying to fix the problem. [I thought,], no, that's what the resource people are for . . . From me observing. I was like, people are far more comfortable with the conduit, I think, I think it's just way smoother and cause they know what's going on.

In response to the same question, Kenneth observed that side conversations “added a whole lot more time onto the visit” when conversations that require consecutive interpretation already take more time than monolingual health care consultations.

Although all students mentioned that avoiding side conversations helped to make their real-world interpreting more efficient and reduced confusion, several interviewees added that some situations did not allow for the interpreter to stick to a strictly conduit role. Tracy mentioned that while volunteering, she saw the need to adapt her role to each situation:

I learned . . . how to work with bilingual staff who were [speaking Spanish] with the patient, but then they wouldn't have a word for something. So then I would step in. But then also, there were other people observing [who] didn't speak Spanish. So I was interpreting more to them than I was between the patient and the other provider. So it was kind of an interesting dynamic and I had to figure it out, but . . . learning about what the role of the interpreter is helped me to navigate that situation better.”

Through navigating a complex real-world encounter, Tracy was able to effectively maintain her function as the interpreter without being overly rigid about her role. Adaptability in function will be further discussed in the next section of this chapter.

## **Cultural Clarification by Student Interpreters**

In both her interview and her written reflection, Liz mentioned working with a doctor who insisted that interpreters should engage with patients and befriend them, rather than acting as strict conduits. Liz had learned about the conduit role and even seen how the conduit role helped to reduce confusion and increase patients' trust in providers. However, she found that it was sometimes appropriate to make eye contact with patients while interpreting, both to compromise with that provider about their expectations and because she was "beginning to accept that the [conduit] model might be too restricted" (Crezee & Marianacci, 2022). In her written reflection, Liz recounted that the NCIHC code of interpreter ethics mentions that interpreters should mimic patient gestures when possible, implying that eye contact between interpreters and other parties could not be wholly prohibited, or else gestures could not be mimicked by interpreters. Through receiving feedback from an end user of her interpreting in the real world, Liz was able to perform her own investigation on the topic and reflect on the advantages and disadvantages of strictly upholding a conduit role. In so doing, she also reflected on the end users of her interpreting, and found that some end users, including patients, do not understand an interpreter acting as an emotionless conduit. By taking this into account, she recognized why interpreters act as conduits while leaving room for considering the experiences of end users. In her interview, Liz reported that she had become aware of how eye contact could lead to role confusion but could also be judiciously used to help patients feel comfortable and to monitor their gestures.

Similarly, Jack reported having realizations through self-reflection that patients may not be used to working with an interpreter, a cultural issue not as commonly addressed in interpreting theory, observing:

I can only imagine, especially for a lot of our patients who are there for the first time in a clinic in the United States, let alone going to the doctor just normally. . . the whole pace and feel of Western medicine as opposed to what they might be used to back home [can be] very overwhelming.

Jack went on to reflect on how overwhelming and unintuitive it may feel to use an interpreter to communicate in health care settings.

Reflecting on how the culture and expectations of medical interpreters may not line up with patients' and providers' expectations helped students like Jack and Liz to keep the end users of their services in mind. The question of whether interpreters should act as cultural clarifiers is a somewhat polemical topic within medical interpreter role theory. In the medical interpreting class, I presented the topic in assignments and discussions, and argued that we should advocate for speakers to provide their own cultural clarification. I argued for this from a practical standpoint, because it is impossible for one interpreter, no matter how familiar they may be with multiple cultures, to fully understand and explain cultural reasons behind why a patient or provider may have behaved a certain way.

Jack mentioned that class discussions on “interpreters as cultural clarifiers” helped him to realize that cultural clarification can have pitfalls and helped him “to decide when that is truly necessary.” Jack recalled:

that's helped me in actual sessions now to be more decisive and allow for patients [and] providers to clarify themselves through meaningful and accurate interpretation, [with me] only jumping in very slightly . . . [to] ask them to do their own explaining instead of just taking the reins.

## **Mixed Reviews of Peer Feedback**

### **Perceived Disadvantages to Peer Feedback**

Although students were only required to review one peer video per week, students always had access to all their peers' recorded interpreting exercises. As a result, I asked interviewees whether they felt any added pressure from the fact that peers could view both of their weekly interpreting exercises at any time. Several interviewees including Kenneth and Devon mentioned that despite being concerned with the quality of their performance, it was not meaningful to them that peers could view their videos. On the other hand, Jenna mentioned that to some degree, this generated a positive pressure for her to perform better on the interpreting exercises: "I didn't know who was watching them . . . If I knew and I formed a relationship with the person who's watching them, I'd be more likely to slack off, at least personally." In response to the same question, Kenneth and Angie reported that they felt pressure early on, but later in the semester, they became accustomed to the practice format, and eventually, the fact that peers could view their videos did not impact their experience. Jack mentioned that whereas he felt no pressure from fellow students being able to view his interpreting videos, he did feel added pressure from the fact that the instructor and TA could view their videos at any time, which motivated him to perform well on the interpreting exercises. In response to this same question, Pete added that if the videos had not been visible to the whole class, the exercises "would have been just a little less meaningful" because he may not have taken the exercises as seriously if he were only accountable to himself. Pete further added that

somebody else is going to be reviewing it. And I think that was kind of a motivation to be like, I don't want the same person to keep coming back to my video and just keep telling me, hey . . . you keep forgetting this week after week after week.



No interviewees mentioned a negative outcome from this pressure, but rather that it led them to stay more attentive throughout the full duration of each interpreting exercise.

### **Peer Comments on Interpreting Videos**

All but one of the interviewees reported that they valued receiving peer comments on interpreting videos the least. While some mentioned that they did not view peer feedback as legitimate because their peers were at the same level as they were, a majority of interviewees responded similarly to Devon, who reported, “I sometimes didn't even ever look at the comments that people had left...It was my fault, mostly.” This supports Hattie and Timperley (2007), who pointed out that feedback may lead to no changes in performance or outlook at all, because it may be rejected or even ignored. When asked about whether comments on their interpreting videos helped them to gain useful insights at any point in time, the seven interviewees who responded that they did not also went on to say that this was because they did not often log back into the video recording platform to view the comments. I will discuss possible ways of making this asynchronous feedback more likely to be viewed by students in the section on pedagogical implications in Chapter 5.

Kenneth offered an alternative explanation for why peer comments were often ignored or were seen as not having much impact:

Most of the time it was something I had already noticed or kind of seen. And then I think, also, a lot of times those specific things were things that a lot of people missed. So again, when we talked about it in the in-person time, we would go over all those things or kind of highlight those things either in the breakout room . . . or afterward [with the whole class]. . . And so there were those big things that were the ones that were the hardest and that everyone got wrong . . . So, it wasn't necessarily like we needed the comment to

figure out that big thing, because I knew we were probably going to talk about it later or someone would bring it up.

Despite peer comments on interpreting exercises being reported to be the lowest-valued form of feedback, positive responses were given when I asked interviewees about the value of peer feedback in small-group interpreting practice with their peers. Angie commented that “it’s kind of nice because we’re all on the same level. So we’re not judging each other.” Pete mentioned that he valued the small group interpreting practice because whereas the transcript assignment had already helped him see how he could improve on the practice dialogues, “what really gets me thinking differently, I think, is listening to other people and where they interpret differently.” Overall, students valued peer feedback during class because of feeling that it was low-pressure and that they found benefit in hearing how others interpreted a phrase or term or how they handled an interpreting exercise overall. Liz, who was the only interviewee who reported benefitting from the peer comments on interpreting videos, shared that she appreciated them because other students had learned Spanish in other countries and could let her know about regional vocabulary variations. This will be discussed in the section below.

### **Benefits of Peer Feedback: Collaboratively Constructed Knowledge**

All eight interviewees emphasized the importance of interacting with peers, the instructor, and the TA while in the live class meeting as well as consulting with more experienced volunteer interpreters during their real-world service hours. Angie mentioned how “discussing it with someone while it’s fresh in your brain and it’s fresh in their brain too” was the most effective way of learning new terminology and concepts. To this effect, Liz mentioned that online resources sometimes lead her astray. Liz continued,

it's helpful when [in class I realized] oh, here's another way [to say it] that this app didn't give me, or the cultural context of this word . . . because apps don't do that.

All students reported that one of the greatest benefits of taking the medical interpreting course was this live interaction to co-construct the knowledge they needed to effectively interpret. Liz mentioned that sometimes a question was so common, it would be asked to the instructor in front of the whole class, but “it was definitely more useful to just ask one or two people and then come back and ask [the instructor]...If we had similar questions.” Liz also mentioned the value of getting feedback from those who learned Spanish in different countries than her:

maybe mine wasn't not necessarily wrong, but there was just a better way of saying it. I thought that was cool. And just to see how different people say things...it was cool because there are so many people. Sort of missions in different places that they could be like, oh, you could say this. And I was like, I've never even heard that before.

Kenneth found value in attending class meetings:

to talk to other classmates and see, since I only watched one other video. I kind of usually got to hear from some other two or three people about what they said and specific things and get their ideas [on] . . . other words that I could have used that could have come up [to bring] across the same point that we were trying to express.

Jenna mentioned, “I definitely had questions that I'd want, wanted to bounce off other people,” and that after the small group discussion with peers, “it was nice to be able to say, Hey, profe, is this is this right? Like, we're not going off the rails here?” This being said, Liz pointed out that sometimes the productivity of discussions in small groups was limited by whether the group “had a direction” and that although students often found a topic of interest from the week's

dialogue to discuss, sometimes she wished for more structured indications the group could follow to make the best use of class time, such as a special theoretical focus each week.

The sheer volume of times I tagged the theme of collaboratively co-constructed knowledge outweighed all other tags to a great degree. Each interviewee mentioned this theme while responding to a variety of interview questions. I call this theme co-constructed knowledge because of the fact that students mentioned it in relation to performing their own research and then coming to class to “bounce ideas” off others. When asked about whether they would have found the same amount of value in an asynchronous format, such as a class forum, all students answered with a resounding no. They found the most value from completing assignments on their own at home, and then coming to class to resolve any of their remaining doubts through live interaction and extemporaneous discussion.

### **Feedback Perceived by Students as Most Helpful**

#### **Increasing Knowledge and Self-Efficacy Through Practice and Application**

Jack made an observation that was shared by all eight interviewees, namely, that “practical application... is most beneficial to interpreters.” He went on to say that “something is inherently lost in... having [interpreter education] be mostly lecture and conceptual, without any opportunities for real practice.” Jack concluded:

[interpreting ability] comes from practice and from a lot of repetition and becoming comfortable with how to handle the situations that will inevitably come up in almost every session . . . and how to resolve those in a good way. And only talking in conceptual [terms] really doesn't allow someone to be prepared to do that.

Liz shared a similar perspective, stating, “I think that's the only way you learn. By practicing. You can memorize all the terms you want, but I would not feel confident if I hadn't done any prep [through practicing].”

Jenna specifically pointed out that medical terminology can only be mastered when used in a situated context, saying that “a glossary doesn't tell you how to use [terms] in context all the time . . . Using [terms] in context can be completely different for different terms.” Jenna noted that practicing terminology in context on a consistent basis has been the thing that most helped her to feel comfortable using medical terms. Pete observed that “memorizing [terminology] even for a test is far less useful or far less memorable. It doesn't get ingrained [as much as when] actually using it in a scenario.” This perspective was shared by all eight interviewees. Tracy added, “actually using them in practice was a lot better [than learning terms in isolation]. That's at least how I retain information. I think that's how most people work.” It is possible that these main takeaways from the course were due to the tendency of interpreting students to favor terminology and accuracy as the most important interpreting skills, to the exclusion of all others such as situation management or delivery. This will be discussed in the pedagogical recommendations section of Chapter 5.

When asked what the most helpful aspect of the course was for her, Tracy responded, “I think that it was just a lot of practice. Doing the online [practice] twice a week . . . That is what helped me more than anything else.” In response to the same question, Jack stated that the most growth occurred for him while

doing the exercises, and someone would say a phrase or a word that I wasn't familiar with, or an idea I wasn't familiar with . . . I felt the most growth occur in recognizing I don't know how to say this. So then afterwards I would go—I would do that on my own

whether or not I had to write it out on a transcript or not— to figure out how would I say that in the future.

Kenneth responded along similar lines that the dialogues were the most helpful part of the course, observing that “a lot of it was just exposure” to the typical format and content of real-world health care interpreting encounters.

### **Experiential Learning**

For Jack, there was no replacement for real-world interpreting experience. He shared that he had helped train student volunteers that had taken the medical interpreting class but were in their first real-world interpreting session, stating:

I noticed that even though they had done all of the [practice dialogues], when it came down to a real setting with real people . . . they still had . . . Not a lack of skill, but a lack of confidence in their ability. . . So I think the volunteering provides that environment to gain the confidence while the class provides the opportunity to gain the skill.

In other words, Jack held the view that even though technical skills were important to gain through practice, those skills could not be legitimized in students’ minds until they took on the pressures of real-world interpreting. To this point, toward the end of my interview with Jenna, I asked her whether she had any realizations after volunteering that she couldn't have otherwise had. Without hesitation, Jenna responded,

That I could actually do it. Cause [before] I was like, yes, I can do the dialogues, but maybe I'm just being babied . . . [While practicing], sometimes I was wondering how I was actually doing. . . But [after volunteering] I was like, oh wow. I can actually do it. It's not as bad as I thought it was.

Tracy shared similar comments: “I think if it weren't for the volunteer assignment, I would have finished the semester . . . and then I would have just thought to myself, I wonder if I could actually do this.” Tracy stated that practice was the most valuable part of the class, but seeing herself navigate real-world encounters reaffirmed the usefulness of the practice she had done. She continued, “going out in real life helped me realize my growth throughout the class . . . The volunteer assignment really made me feel confident that I had learned.” To give one more example, Angie stated that her experiences volunteering reinforced what she had learned in the class, stating, “I learned from your experience. And then I got my own experience.” In completing the volunteering assignment, students also mentally gave their own feedback to other interpreters and to the outcomes of different triadic interpreter-mediated interactions, as advocated for by Crezee (2015). This represents the transition acclimation to proficiency and budding expertise described by Alexander (2003).

### **Ability to Consult with Experienced Interpreters**

When asked what the most helpful aspect of the course was for him, Devon, who had already been interpreting as an independent contractor before taking the course, shared:

The weekly meetings were important to me. I liked hearing your personal experiences at work [as a professional interpreter]. That was very helpful to me. I liked hearing different tips that you had found useful because I almost always thought, oh yeah, that is definitely something that comes up.

Pete mentioned that the transcript allowed for the most self-assessment and subsequent growth and was therefore the most important assignment in helping him gain knowledge. However, when asked what was the most helpful aspect of the course for him, he responded that “access to someone who is a medical interpreter [was] pretty essential for the takeaway and for

the overall benefit of the class,” specifying that the class meetings were important for confirming whether he had found reliable information while completing the transcript assignment. Pete continued,

[it] was helpful to go do my own research, but I didn't feel as confident in that as I did and coming to class and being able to say, Hey, how do you really say drainage? Because [sometimes] it was hard for me to confirm that online.

Having access to the insights of someone familiar with the day-to-day realities of a medical interpreter was a frequent response to my question of what the most important aspect of the class was. Although some students responded in a similar manner to Pete, that this was important to confirm whether certain terminology would commonly be understood, Angie shared that “the most vital was listening to you actually, and your experiences.” The most frequent sense in which this response was given was about the practical considerations and decision making that interpreting requires.



## **Chapter 5: Discussion and Conclusion**

This study gave a detailed, qualitative look at student experiences by coding interview transcripts and written student reflections. This chapter includes the recurring themes that were deemed to be most important, as well as implications for future medical interpreting classes. Overall, students placed importance on the three activities that Kiraly (2000) asserted to be most useful for building competence in language professions: authentic situated action (i.e., practice dialogues), the collaborative construction of knowledge (i.e., live discussion), and personal experience (i.e., real-world interpreting hours).

### **Feedback that Interviewees Found to be Most Helpful for Self-Efficacy**

#### **Self-Assessment and Repetition of Interpreting Exercises**

Students reported that they were able to go from feeling overwhelmed to having a belief in their own abilities by interpreting each week's dialogue a second time. This repetition allowed them to compare their performance on the second attempt to that on the first attempt. Over time, through the predictable flow of weekly assignments, students became comfortable identifying gaps in their own knowledge, seeking feedback, and incorporating new knowledge in the second attempt.

Self-assessment was reported to be highly valuable in interpreting practice, whereas peer feedback was reported to be the least impactful aspect of the course overall. One of the most labor-intensive parts of this medical interpreting course for both the instructor and the students was leaving time-stamped comments on video recordings of students' interpreting to point out specific successes or room for improvement in interpreting performance. This assignment was appreciated by one learner as a chance to hear about ways of saying things in other regional varieties of Spanish. One interviewee reported that the act of peer review exposed him to other

ways of interpreting the dialogue he had just completed, but that he did not find value in receiving comments except for feeling “relief” and encouragement early on in the semester after receiving specific comments of praise. All other participants reported finding little to no value from giving or receiving peer comments on the practice dialogue videos. One interviewee summed up the majority view when she remarked that after watching the recording of herself interpreting the first attempt and completing the transcript assignment, she was already well aware of what she had “gotten wrong” or left out of her interpreting, and peer comments tended to be redundant. One further reason that all interviewees gave for not benefitting from peer comments was that viewing them required logging back into the video platform and accessing a video on which they had already done extensive work for the transcript assignment. I will discuss potential ways of mitigating this in the section on pedagogical recommendations.

Although interviewees did find it helpful to complete a second attempt of each practice dialogue, the interviews overall made it evident that not all self-feedback on the second attempt was seen as helpful or important. In future semesters it may serve students better to simplify the self-feedback required on the second attempt. Jenna observed that she would have found more benefit from setting goals prior to the second attempt, and afterward rating herself on how successfully she achieved those goals. A simplified assignment such as this may help future semesters to require self-feedback on the second attempt in a way that would be more achievable and less burdensome to students.

### **Building Self-Efficacy in Real-World Interpreting**

Most participants performed real-world interpreting for the first time during the volunteering project in the last two months of the semester. Regardless of experience level prior to taking the class, all participants reported that they experienced increased self-efficacy through

the content and format of the practice dialogues as well as through adaptive strategies such as controlling segment length, note taking, and clarifying. The practice dialogues provided not only a chance to practice medical terminology in context, but also a chance to become familiar with the typical format of interpreted health care conversations. Students found the practice applicable to real-life scenarios and reported becoming comfortable with showing flexibility in order to overcome barriers to understanding. Because of what Yuan (2022) refers to as the instantaneity of interpreting, adaptive strategies are needed to cope with complications regardless of experience level. It is my hope that by learning these adaptive strategies, students will be able to overcome challenges as they gain experience and even as they deepen their second-language proficiency.

### **Feedback that Interviewees Found to be Most Helpful for Skill Development**

#### **Hands-On Practice and Application of Knowledge**

All participants reported that the demands of interpreting practice helped them to expand their domain-specific knowledge and vocabulary in a way that they would be able to retain and use in real-world interpreting. This was reportedly not because of the interpreting alone, but because of the sequence of weekly assignments that required them to listen to their first attempt video and identify gaps in their knowledge. The sense that practice materials were authentic and useful led students to implement their own personal system to take note of the gaps in their knowledge and seek solutions through independent research, instructor and peer feedback, and in some cases by actively adapting their interpreting during volunteer hours when they noted they were not being initially understood by patients. This indicates a willingness to perform constructive self-criticism, a core competence for interpreters identified by Crezee and Marianacci (2022). A level of comfort with self-assessment ideally leads to the habit of students

evaluating their own strengths and weaknesses and continually updating their knowledge and is a vital component of being a self-regulating learner.

Students assigned a high level of importance to vocabulary expansion, perhaps at the expense of acknowledging the importance of peer and instructor feedback that was focused on delivery and presentation. This potential explanation is in line with one interviewee's stance that student interpreters need to reach a critical level of vocabulary before they can continue to refine other interpreting skills.

### **Collaboratively Constructed Knowledge**

One of the most frequently mentioned topics that emerged in the interviews was how students retained collaboratively constructed knowledge and valued it over the information they obtained through independent research. In-class discussions to "bounce ideas off" peers and the instructor were seen as indispensable.

### **Learner Autonomy**

Cases such as Liz's ethical dilemma show evidence of learners developing the autonomy to respond to traditional admonitions given in medical interpreter training, such as those surrounding the interpreter's role. Liz was able to measure the advantages and disadvantages of the role that a provider requested her to take on and to come to the decision to maintain the most important elements of the conduit role without acting "like a robot" toward the parties for whom she interpreted. She observed that limiting herself to being the "voice" of the parties being interpreted for without interjecting her own words helped to avoid confusion and increase patients' trust in the overall process of receiving care at the clinic. Yet, at the same time Liz noticed a contradiction in the advice she had received from another volunteer to avoid eye

contact with patients and was better able to watch for gestures and monitor their faces for signs of understanding or confusion.

Jack was another autonomous learner who used the physical act of note taking as a nonverbal tactic to better control the length of segments during in-person interpreting. Controlling the length of segments was his specific goal, but he also made observations about how note taking helped speakers to focus on each other, once again due to the physical act of the activity itself. Jack observed, “it helps [the provider and patient] to make sure that they're still looking at each other” and commented that it better allowed him to facilitate communication, rather than including his own opinions in the conversation. As I discussed in Chapter 4, both Liz and Jack found different ways of being considerate of the end users of their interpretation, and both showed a dynamic understanding of how different interpreting strategies learned in the class could be applied depending on the constraints and goals of a given encounter.

Overall, Jack reported that class discussions were productive because students came to class having performed self-study in preparation, and that he saw the teacher as “someone who has, not necessarily the answers, but a way to guide the study.”

### **Access to Practicing Language Professionals**

Students reported giving feedback different levels of credibility depending on the person’s level of experience interpreting. It may have been for this reason that they appreciated peer feedback when it involved regional differences in Spanish vocabulary, whereas peer feedback on their interpreting skills was seen as relatively low-value in comparison. Students had a desire to know “what it's going to be like” when they went out to interpret in the real world, and for that reason they valued practical feedback from the instructor. Overall, having an

instructor with practical advice was the most frequent response when interviewees were directly asked the open-ended question of what was most useful about this interpreting course.

Students reported feeling better prepared to navigate real-world interpreting sessions by coming to class and bringing up hypothetical scenarios or actual case studies from their volunteering. Through the instructor's insights and examples, which taught them how to problem solve, students reported feeling more comfortable taking on real-world challenges. Students also reported that while performing their service hours, they felt comfortable seeking feedback from more experienced volunteers.

Angie remarked that the most useful part of the course for her was a combination of practical guidance and experiential learning, telling me, "I learned from your experience. And then I got my own experience."

### **Limitations**

The present study involved a small sample size, which lent itself to qualitative analysis. There was likely a self-selection effect in the group of participants, due to the course being a fourth-year elective credit that had another upper-level elective as a prerequisite requirement. Additionally, a majority of participants had an interest in interpreting as a side note to their main goal of practicing a health care profession. For this reason, they may not have been representative of interpreting students in higher education, who are, on average, more likely to aim to be primarily language professionals.

Within the limitations of focusing on a single iteration of a university course, there were further limitations to the information I was able to gather through interviews. A volunteer bias may have skewed the student perspectives represented in this study, as those who viewed the course most positively were the most likely to volunteer for an interview. On the other hand,

students who may have had a more critical view of the class were less likely to volunteer for an interview. Furthermore, perspectives shared by interviewees may have been filtered by a social desirability bias. In other words, because I was both the instructor for this course and the interviewer in this study, students may have filtered out any criticism of the course that they thought might offend me. In addition, interviewees may have filtered out any part of their responses that they thought might reflect poorly on themselves as students in order to give answers that seemed desirable to their university instructor. While conducting interviews, I encouraged openness and thanked participants when they shared information that may not have been seen as socially desirable, such as when they shared that they did not complete certain assignments. In spite of my attempts to offset these biases, they surely still limited my findings to a degree.

### **Pedagogical Implications**

#### **Practical Knowledge from an Experienced Professional Interpreter**

The skills required for medical interpreting cannot be taught by theory alone. It is for this reason that medical interpreting may never leave the "realm of apprenticeship" (Crezee, 2015, p. 52). Students need an instructor who has personally dealt with the day-to-day realities of interpreting, because only an experienced interpreter can give dynamic feedback to questions about how theory can be put into practice. Hypothetically, if a class included experienced interpreters who were seeking continued education, such a class could rely more heavily on peer feedback instead of instructor feedback -- in that case, students might consider some peer feedback more valuable, based on their peers' levels of experience. However, since learner demographics cannot be expected to always include experienced interpreters, it is necessary to

have an instructor who has experience with interpreting, so that they can dynamically present potential solutions to questions about the day-to-day realities of interpreting.

### **Training Students on How to Give Helpful Peer Feedback**

The first few weeks of a semester provide the opportunity to support students in learning how to effectively give peer feedback. This represents a crucial first step in gradually handing the responsibility of expertise over to students so that they will be self-regulated learners in their future work. While the medical interpreting course in the present study provided initial instruction on how to give peer feedback, after the first week of the course, I began replying to peer comments that students left, to ensure that feedback was useful and helpful. I sought to engage in a conversation in which students had equally valid perspectives and add in further “potential, not final, solutions” (Tymczyńska, 2009, p. 152). However, this approach may have been less effective due to how infrequently students navigated back to their previously submitted assignments to view the comments, which I will discuss in the next section. Students likely would have benefited from more scaffolding, examples, and feedback from the instructor on the comments they wrote prior to being given the full responsibility of giving peer feedback on a weekly basis.

### **Streamlining Asynchronous Feedback**

As previously mentioned, much of the asynchronous feedback given in this course was in the form of comments on interpreting videos. These comments often went unread, in part because students did not find the comments convenient to access. Students reported that the two main barriers to viewing these comments were that it required several steps to go back and access a completed assignment to view the comments and not knowing precisely when the comments would be left. The removal of these two barriers would therefore increase the



likelihood that students view asynchronous feedback and benefit from it. To remove these barriers, asynchronous feedback should be given within a system that automatically sends students notifications and has a convenient way of viewing the feedback, such as a direct link to the assignment. The medical interpreting class in the present study was housed in Canvas, a learning management system that can do both of these things. Although the practice dialogues were accessible only through the course in Canvas, the assignments were externally linked to GoReact, a platform that allowed for the recording of interpreting videos and facilitated subsequent commenting and tagging specific parts of videos. Because the dialogues were housed in GoReact, students did not receive notifications when comments were made.

Jack's remarks are illustrative of the situation experienced by a majority of students:

I had a difficult time remembering to go back and read the feedback. So I don't know if I could say that was the most impactful [part of the course], 'cause it probably would have been if I had read it . . . I just would get caught up in everything else and I'd forget to go back and look.

Students were deterred from looking at comments by the combination of not knowing when comments would be left and the several steps it took to access their previously submitted videos. A more streamlined system that sent notifications would greatly improve the convenience of viewing and reading asynchronous feedback.

### **More Prerequisite Requirements for Enrolling in Medical Interpreting Courses**

Without baseline language proficiency, students will be limited in the level of interpreting skill they can achieve. Gambrell and Lesch (2021) found that language proficiency needs to be ensured in order to improve the outcomes of interpreter education. In line with the requirements for national certification for medical interpreters (NBCMI, 2016), future courses

should require students to submit proof of an Oral Proficiency Interview score of Advanced-Mid or higher before enrolling.

In addition to requiring proof of a minimum OPI score, it is possible that university interpreting courses would benefit from requiring competency testing for other interpreting skills, such as memory, message transfer skills, and evaluation of oration skills and performance anxiety. These skills are difficult to assess in a standardized manner, posing a challenge to implementing this sort of aptitude testing. However, a simple consecutive interpreting pre-test could be assessed according to whether select terms in the dialogue were interpreted in such a way that they approximated the meaning in the other language. Limitations in memory, message transfer skills, and oration skills often lead to omissions in interpreting (Angelelli, 2006). Therefore, this simple form of assessment would improve the likelihood that a student interpreter has a minimum level of interpreting ability and would be receptive to further feedback.

In the present study, students reported that the outcomes of certain feedback systems did not always align with the intended outcomes. Outcomes of feedback in interpreter education can be better aligned with those intended through the recommendations given in this chapter as well as through continuing to welcome input from learners about their experiences.

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## **Appendix A: Interview Guide**

### **Questions on Interviewee's Background**

1. Did you take this course primarily for an interesting elective credit, or did you have a personal interest in medical interpreting independent of the class?
2. What are your goals in the healthcare field?
3. What are your goals regarding medical interpreting?
4. After taking this course, are you now more likely to take the national exam and/or seek work as a medical interpreter?

### **Questions on Outcomes of Feedback**

1. In your opinion, did you learn from simply interpreting the practice dialogues, or did you find it necessary to watch the videos of your interpreting in order to improve? Of the several assignments that related to the practice dialogues, which were most and least helpful, and why?
2. How did you experience self and peer feedback compared to instructor/TA feedback on your interpreting? What were the advantages and disadvantages of both?
3. Did peer comments on your practice dialogue videos ever lead to a change in your interpreting? If so, what are specific examples?
4. Did you experience any benefits from leaving comments on your own second attempt at the practice dialogue? If so, what were they?
5. What were the most productive things you did to learn from your second attempt at the dialogue, whether they were requirements in the class or not?
6. Did you watch your entire second attempt video in order to leave comments, or did you have other ways of going straight to areas of interest?

7. How did this class influence your trajectory for how you will continue to develop your interpreting skills? Could your experience in this class have helped you better?

### **Questions on the Structure of the Medical Interpreting Class**

1. Was the weekly flow of assignments helpful to your learning? If so, why in particular? If not, what could have been different?
2. Did you reach a point in the semester in which you went from feeling unprepared for real-world interpreting to feeling prepared? If so, when, and why?
3. Did you reach a point in the semester that you felt you had learned what you needed to know in order to successfully interpret? If so, how many weeks did you need before you felt prepared?
4. Our class was mostly online, but we met once a week. In your opinion, could this class have had the same outcomes for you if there were no live meeting? Why or why not?
5. What other observations did you make about effective versus ineffective feedback in this class? Give specific examples.

### **Questions on the Volunteering Assignment**

1. Did your experiences in the class lead you to make different decisions while volunteering than you otherwise would have?
2. While performing volunteer interpreting hours, did you use terminology that you had learned in the class? If so, what about how you learned that terminology helped you to call it to mind when you needed it?
3. Did you use any strategies to control how long people spoke, and if so, what were they? Did you choose to employ this strategy because of something you learned in the class, and if so, why specifically?



4. Did you rely on any strategies to support your memory, and if so, what were they? Did you choose to employ this strategy because of something you learned in the class, and if so, why specifically?

## Appendix B: Institutional Review Board Approval Letters



### Memorandum

To: Scott Alvord  
Department: BYU - HUM - Spanish and Portuguese  
From: Sandee Aina, MPA, HRPP Associate Director  
Wayne Larsen, MAcc, IRB Administrator

Date: February 16, 2021

IRB#: IRB2021-037

Title: A Qualitative Look at the Development of Initial Consecutive Interpreting Skills in Undergraduate Students

Brigham Young University's IRB has approved the research study referenced in the subject heading as exempt level, Category 4. This study does not require an annual continuing review. Each year near the anniversary of the approval date, you will receive an email reminding you of your obligations as a researcher and to check on the status of the study. You will receive this email each year until you close the study.

The study is approved as of 02/16/2021. Please reference your assigned IRB identification number in any correspondence with the IRB.

Continued approval is conditional upon your compliance with the following requirements:

1. A copy of the approved informed consent statement can be found in iRIS. No other consent statement should be used. Each research subject must be provided with a copy or a way to access the consent statement.
2. Any modifications to the approved protocol must be submitted, reviewed, and approved by the IRB before modifications are incorporated in the study.
3. All recruiting tools must be submitted and approved by the IRB prior to use.
4. Instructions to access approved documents, submit modifications, report adverse events, can be found on the IRB website, iRIS guide: <https://irb.byu.edu/iris-training-resources>
5. All non-serious unanticipated problems should be reported to the IRB within 2 weeks of the first awareness of the problem by the PI. Prompt reporting is important, as unanticipated problems often require some modification of study procedures, protocols, and/or informed consent processes. Such modifications require the review and approval of the IRB. Please refer to the [IRB website](#) for more information.



**Memorandum**

To: Scott Alvord  
Department: BYU - HUM - Spanish and Portuguese  
From: Sandee Aina, MPA, HRPP Associate Director  
Wayne Larsen, MAcc, IRB Administrator  
Date: November 08, 2021  
IRB#: E2021-037  
Title: A Qualitative Look at the Development of Initial Consecutive Interpreting Skills in Undergraduate Students

Brigham Young University's IRB has reviewed the amendment submitted to increase the number of subjects in the research study by inviting Spanish 465 students enrolled in Fall 2021 to participate, to update the consent form to include the addition of Zoom recordings, and to include a possible opt-in, post-semester interview. The IRB determined that the amendment does not increase risks to the research subject and the aims of the study remain as originally approved. The amendment has been approved. The revised consent statement and recruiting script have been approved and stamped for your files.

All conditions for a continued approval period remain in effect. Any modifications to the approved protocol must be submitted, reviewed, and approved by the IRB before modifications are incorporated in the study.



### **Memorandum**

To: Blair Bateman, Ph.D.  
Department: BYU - HUM - Spanish and Portuguese  
From: Sandee Aina, MPA, HRPP Associate Director  
Wayne Larsen, MAcc, IRB Administrator  
Date: February 22, 2022  
IRB#: E2021-037  
Title: A Qualitative Look at the Development of Initial Consecutive Interpreting Skills in Undergraduate Students

Brigham Young University's IRB has reviewed the amendment to change the PI to Dr. Blair Bateman. The IRB determined that the amendment does not increase risks to the research subject and the aims of the study remain as originally approved; the data has been collected and there will be no additional interaction with human subjects. The amendment has been approved.

All conditions for continued approval period remain in effect. Any modifications to the approved protocol must be submitted, reviewed and approved by the IRB before modifications are incorporated in the study.