

May 2012

Exploring Remote Interpreting

Erica Alley
Gallaudet University

Follow this and additional works at: <https://tigerprints.clemson.edu/ijie>



Part of the [Education Commons](#), and the [Sign Languages Commons](#)

Recommended Citation

Alley, Erica (2012) "Exploring Remote Interpreting," *International Journal of Interpreter Education*: Vol. 4: Iss. 1, Article 10.

Available at: <https://tigerprints.clemson.edu/ijie/vol4/iss1/10>

This Student Work is brought to you for free and open access by TigerPrints. It has been accepted for inclusion in International Journal of Interpreter Education by an authorized editor of TigerPrints. For more information, please contact kokeefe@clemson.edu.

Exploring Remote Interpreting

Erica Alley¹

Gallaudet University

Abstract

This article examines the field of remote interpretation in both signed and spoken languages. Remote interpreting is used throughout a range of specializations including medical, mental health, education, conference, and legal environments. Video interpreting is here to stay, despite obstacles that continue to pose a challenge; many who fight this technology do so against the natural paradigm shift that the field will take. I propose that rather than resist the expansion of technology, interpreter educators instead teach interpreters how to use it effectively. In this article I identify important topics for educators to address, to help interpreters make ethically wise decisions in this setting and to improve the provision of services.

Keywords: remote interpreting, video remote interpreting, video relay service

¹ Correspondence to: erica.alley@gmail.com.

Exploring Remote Interpreting

1. Introduction

Remote interpretation, as it occurs between American Sign Language (ASL) and English via video, is a relatively new phenomenon that consists of both video relay service and video remote interpreting. Given that this method of providing signed language interpreting service is such a recent innovation, we can learn much about its purpose and current use from those who have experience in this new field, particularly those who have worked in and studied spoken language remote interpretation via telephone. It is important to consider what our colleagues who provide remote interpretation in spoken language interpreting settings do both successfully and unsuccessfully. In this article, I examine the field of remote interpretation in both signed and spoken languages in order to identify important topics to address when teaching interpreters how to work in this setting, thereby improving the provision of services. I begin by identifying the difference between video relay service and video remote interpreting, then consider the individual settings that commonly utilize remote interpreting. Finally, I address a variety of topics for discussion in the classroom, which may benefit interpreters who work in this setting.

2. Video Relay Service and Video Remote Interpreting: A Comparison

The Video Interpreting Committee of the Registry of Interpreters for the Deaf (RID; 2008) describes video relay service (VRS) as a federally funded, government regulated service provided to deaf and hard of hearing individuals in order to achieve access to telecommunication that is functionally equivalent to that which is available to hearing individuals. The idea of *functional equivalency* originates with Title IV of the Americans with Disabilities Act (1990) describing the purpose of Telecommunications Relay Service (TRS). Funding for VRS derives from the Interstate Telecommunications Relay Service Fund, which is managed by the Federal Communications Commission (FCC) and currently provides compensation for VRS service on a per-minute basis. In contrast to text-based relay, such as that mediated using a TTY, VRS allows for interpreted conversation to take place in real time using signed language. With the advent of this system, deaf people are no longer limited to communication via written English, in which—as in voice relay interpreting using a TTY—they have to wait for the other conversational participant to say “Go ahead” in order to continue their conversation.

VRS is a highly praised technological advancement, but it is limited to communicative interaction between two parties in different locations. A video interpreter (VI) who identifies that the hearing and deaf caller are in the same room must inform the callers that the call cannot continue and promptly disconnect. The interpreting agency is forbidden to bill the FCC for video remote interpreting services, because they do not fall under the purpose for which the Telecommunication Relay Service (TRS) funds are allotted.

In contrast, video remote interpreting (VRI) agencies may be privately owned and regulated without funding from TRS or government involvement. VRI is provided in settings in which conversational participants are present in a common location and utilize the services of an interpreter at a distant location in order to communicate. The Video Interpreting Committee of RID describes VRI as being used often in medical, legal, business, and education settings for a variety of reasons, and with a range of benefits. VRI is cost effective, if used infrequently, and services are available immediately; participants do not have to wait for an interpreter to arrive at

Exploring Remote Interpreting

a particular location. Whereas an on-site interpreter may charge by the hour and have a 2-hour minimum, VRI services often charge by the minute and have a 15-minute minimum (RID VIC, 2008). Businesses can set up rate plans, on-demand services, or ongoing assignments. These may be economically wise choices; however, charging by the minute adds up rather quickly if services are used for a long period of time.

Whereas VRI is frequently used in places of business such as doctor's offices and legal offices, research reported by Taylor (2005) indicates that VRS, on the other hand, is most often used at home; however, it is possible to use VRS from a person's place of employment, with the proper equipment. Taylor states that VRS calls made during the day, between the hours of 9 am and 5 pm, are different than those placed at night. Calls placed after business hours are often between family and friends; late night VRI calls may likely be regarding an emergency.

Another difference between VRS and VRI is the amount of preparation time and material that is made available to the interpreter. In a VRS setting, there is typically very little break time between calls and often a minimal amount of information from which to prepare. Any information that is received is shared seconds before the call is placed. This creates an environment in which the interpreter often does not know the subject or tone of the call until it is already being processed. VRI interpreters, on the other hand, are sometimes able to receive information when the request for interpreting service is placed (assuming that the request is made in advance, which is not always the case in an emergency situation). VRI work may include the interpreter meeting with the deaf participant prior to an interpreted event in order to assess linguistic needs and ensure that the interpreter can provide quality service. VRI agencies may have ongoing jobs to which interpreters, individually or as a team, are assigned and in which they can continue to work on a regular basis. Interpreters can thus build a schema in reference to the setting and participants, making it easier to provide higher quality interpreting service. They will also have knowledge of jargon and regional word or sign choices, which may assist them with their interpretation. The purposes and goals of VRS and VRI are very different; however, there are many similarities in the work. Both services are in 2-D format, using video technology as a medium. Keating & Mirus (2003) investigated communication that occurs in a 2-D environment using signed languages and found that consumers are aware that adjustments need to be made in this setting and change their approach to communication to ensure clear communication in a visually effective manner. Such strategies include reducing sign space in order to meet the spatial limitations posed by the camera, adjusting to palm orientation, using a slower pace, and emphasizing individual signs.

VRS and VRI are also similar in that they are both susceptible to technical difficulties that can prevent communication from occurring smoothly—or at all. Research conducted by the Interpreting via Video Work Team of the National Consortium of Interpreter Education Centers (2010) on VRI shows that conditions such as video quality, audio quality, stability of connection, availability of technical assistance, lack of training, and ease of using hardware/software may impact the efficacy of the interpretation. This can be applied to VRS as well. Specifically, VRS and VRI depend on the amount of available bandwidth in a particular location. The use of wireless Internet access may decrease the efficacy of the device and cause problems that limit visual access to information. Similarly, auditory access may be limited depending on the logistics of the interaction, the quality of the microphone, and the amount of background noise. Furthermore, if there are several participants in the conversation, it may be difficult to see or hear all participants.

Both settings require the interpreter to develop strategies for managing communication. For example, turn-taking can be complex when there is limited visual access to the individual with which a person is speaking. Consumers of VRS do not have visual access to one another and may struggle with turn-taking. In certain situations, consumers of VRI can see one another because they are in the same room; however, depending on the location of the VRI device, the hearing participant may or may not have visual access to the interpreter. If there are several people involved in a communicative interaction, such as at a business meeting, and only the deaf individual can see the interpreter on the screen, it is easy to forget that an interpreter is present. The interpreter will have to regulate turn-taking in order to prevent speaker overlaps that occur in natural conversation.

Because VRS and VRI are relatively new technologies, signed language interpreters may be able to benefit from spoken language interpreters who have accumulated a great deal of experience in remote interpretation over the years. In addition to considering their similarities and differences with and from each other, we must consider whether the consumer's experience of using VRS and VRI is similar to or different from the experience of

Exploring Remote Interpreting

working with spoken language interpreters via remote interpretation. VIs may benefit from the knowledge of our spoken language interpreting colleagues. We can also learn from the experiences of nonnative English speakers who have worked with spoken language remote interpreters. What is their opinion regarding the effectiveness of this resource? Similarly, what are some of the concerns that interpreters have about working in these environments? A study of the remote interpretation setting as it is used globally may provide us with ideas for improving our work, in order to provide effective interpretation for consumers of video interpreting services.

3. Challenges to Effective VRI

Participants in interpreted interactions (including interpreters) may prefer not to use remote interpreters because they are not familiar with working in this environment (Gracia-García, 2002). Interpreters are often more comfortable with the type of interpreting that they are familiar with and uncomfortable with new approaches to interpretation. Given that there is minimal training offered to interpreters and consumers, participants are left confused as to how to proceed with an interpreted interaction. This places more stress on everyone involved.

Moser-Mercer (2005), in her study of presence in remote interpreting at an international conference, admitted, “Interpreters have not yet been trained to work in remote settings and are thus still having to rely largely on consciously controlled processing” (p. 77). Interpreters’ lack of prior knowledge of how to adapt to this setting leads them to invest a great deal more energy into their interpretations. Similarly, the change from interpreting in a physical space to interpreting in a technological environment consisting of an entirely mental space has led to an increase in the amount of mental energy needed in an interpretation. Mintz (1998) emphasized the distraction that occurs when an interpreter has to pay attention to the equipment that is being used rather than the interpretation that is being conducted. This is often the case for new interpreters in remote interpreting settings. As Gile (1995) pointed out in his effort model, effort that is put into one area is taken from a finite pool of energy and, therefore, detracts from effort that could be invested in another area. This leads to fatigue, resulting in a greater number of errors in a given interpretation. Mintz (1998) recommended that interpreters receive training on how to work with remote interpreting equipment; once they become more comfortable with the technology, they may come to appreciate the convenience of remote interpretation.

Working in a remote interpreting environment may also have physical repercussions. Similar to a job that requires a person to work on a computer all day, remote interpreting may cause headaches, eye strain, and other physical pain. Research by Roziner and Shlesinger (2010) showed a significant increase in the number of headaches that the interpreters complained of when they worked in a remote setting. Interpreters also complained of increased drowsiness, anxiety, and trouble concentrating. All of these factors may lead to difficulty interpreting and ultimately to a poor-quality interpretation. It is interesting to note, however, that the authors attribute this to the interpreters working in a new environment outside of their comfort level; they liken these stress indicators to those felt by interpreters who were expected to interpret simultaneously rather than consecutively. Any change from the habitual norm produces a greater degree of stress. It is possible that as interpreters become familiar with the remote environment, the level of stress will decrease and the quality of the interpretation will improve. This is just another reason that training is needed in this field. Training that takes place outside of live interpretations will help interpreters feel more comfortable with remote interpreting without impacting the quality of an interpretation that has actual consequences.

4. VRI in Conference Settings

Moser-Mercer (2003) studied remote interpreting by filming interpreters working in both remote and on-site environments. Interpreters worked in the conference room where the event was taking place as well as a remote location for the same event; each interpreter was filmed in both environments. Results showed that the quality of the remote interpretation declined significantly after 30 minutes of interpretation, a greater decline than in

Exploring Remote Interpreting

interpretations rendered in the conference room. Moser-Mercer interviewed the interpreters and found that one reason for the increased errors in the remote setting is a lack of presence at the interpreted event. “It seems that the lack of proximity to clients and staff produces a feeling of alienation that ultimately results in lack of motivation and hence produces a decrease in interpreting quality” (Moser-Mercer, 2003). Roziner and Schlesinger (2010) agreed with this finding, reporting that decreased feedback from the audience, due to being situated at a distance from the event, creates a feeling of having little control over the interpretation. It also leads to an inability to identify with the audience who relies on the interpreter. Interpreters in Moser-Mercer’s study mentioned feeling as if they could not ask for clarification if necessary. Without the ability to ask for clarification or repetition, interpreters are unable to repair an inaccurate interpretation, which leads to a decrease in the quality of that target language output. It should not come as a surprise that distance from the interpreted event would produce a feeling of isolation that would ultimately impact the quality of the interpreters’ work, because interpreting involves communication between people. An inability to see the people with whom you are communicating leads to a feeling that you are talking to yourself.

Roziner and Shlesinger (2010) identified the environment that the interpreter is working in as another constraint to remote interpretation. Long hours of sitting in a confined location (i.e., the booth) increased the level of stress that the interpreter experienced; the booth’s dark background and partitions compounded this feeling. Although these features served a purpose—the dark background assisted with the clarity of the picture, and the partitions protected the confidentiality of the participants and reduced distractions during the interpretation—they nevertheless increased the interpreter’s feeling of isolation.

5. VRI in Medical Settings

Although there are challenges to working with a remote interpreter in a medical setting, there are also a number of advantages. Gracia-García (2002) studied the pros and cons of telephone interpreting in medical settings and categorized the pros into four areas: advantages for doctors and health care providers, advantages for administrators and customer institutions, advantages for interpreters, and advantages for patients. Many of these points can be more widely applied to remote interpreting in general. The author recognized benefits to working with telephone interpreters such as the fact that they are more readily available than on-site interpreters in situations that require immediate action, such as in emergency hospital settings. This reduces the risk of lawsuits because immediate communication is an option, thereby ensuring that urgent matters are communicated in a timely fashion and the patient can arrive at and express an educated decision without delay. Additionally, it is also more cost effective to work with a telephone interpreter given that there is no charge for travel time and no 2-hour minimum. Furthermore, on a busy day, on-site interpreters may not be available; however, a telephone interpreter is just a call away.

Interpreters may prefer to work in remote medical settings rather than on-site in a hospital because distance allows them to remain detached from traumatic events and, therefore, to focus on the interpretation without visual distractions. In on-site situations, interpreters are often alone in the room with a patient when the doctor is not there, and they may find this uncomfortable or awkward; telephone interpreting allows the interpreter to maintain strict boundaries (Gracia-García, 2002). In addition, because there is no travel time, interpreters can work with one person after another, and more interpreting requests can be fulfilled in a timely manner. There is also flexibility in medical settings; an on-site interpreter and a remote interpreter can both be used for the same interpretation. A remote interpreter can interpret until an on-site interpreter arrives, so the patient does not have to wait for interpreting services in order to begin communicating with medical personnel.

In a study of patient satisfaction with different interpreting methods, Gany et al. (2007) compared proximate and remote interpretations (by telephone) in a New York City municipal hospital in which more than half of the patients prefer to communicate in a language other than English. Because the interpreter is unable to see the patient, remote interpretation allows the patient to maintain privacy, and patients reported that they liked remote interpretations for this reason. Gracia-García (2002) found that patients were more comfortable asking personal questions about their health when the interpreter was not in the room. Patients were also satisfied with remote

Exploring Remote Interpreting

interpretation because it decreased the amount of time they had to wait for an interpreter. In contrast to this, patients were dissatisfied with remote interpretation when technical glitches hindered communication.

Locatis et al. (2009) studied remote medical interpretations by comparing interpretations that occurred via video, telephone, and on-site at the Medical University of South Carolina. They used a Likert scale completed by patients, interpreters, and medical staff to assess satisfaction with the interpreting services provided. Results showed that most participants preferred on-site interpretations to remote interpretation. Patients claimed to prefer on-site interpretation because it is more personal, which leads to a better understanding of the information communicated. It is possible that this is due to the establishment of trust that coincides with clear communication. Regarding remote interpretation, patients preferred video interpreting, which gives visual access to the interpreter, to telephone interpreting. Some providers preferred telephone interpreting because it required less time than on-site interpreting; however, technical problems such as poor audio quality were recognized. Technical problems with video interpreting resulted from poor signal strength, due to the device's distance from the router. These issues detracted from the ability to have a smooth conversation and ultimately led people to dislike remote interpretation in most cases.

Research into the types of technological difficulty that is experienced in remote interpreting may help improve the quality of interpretations in medical situations. Furthermore, training of interpreters and conversational participants on how to work within the identified limitations may decrease the number of technological issues that occur. For example, if hospital personnel are aware that certain examination rooms closer to the router are optimal for working with these patients, using these rooms may avoid technical problems. This may decrease the amount of frustration felt by all people involved in an interaction.

6. VRI in the Courtroom

Remote interpretation in the courtroom is a serious issue. Courtroom interactions have serious consequences, including the life and liberty of the individual on trial. Inaccurate interpretation and/or ineffective communication may lead to a delay in the trial or, worse, an incorrect case ruling. The National Association of Judiciary Interpreters and Translators (NAJIT) in the U.S. created a position paper regarding telephone interpreting in legal settings that states, "Telephone interpreting should only be used when no certified, qualified or language skilled interpreter (particularly in less common languages) is available in person at the location where the service is needed" (NAJIT, 2009). There is no further detail in this document regarding the meaning of *qualified* or *language skilled* with respect to the interpreter; therefore, justification for the decision to use remote interpretation becomes subjective. As with VRI, remote interpretation in the courtroom raises issues including problems with the technology, the importance of training, lack of local knowledge such as accents/terminology, and lack of visual access to the environment. NAJIT also points out benefits of remote interpreting, such as interpreter anonymity and the financial advantage. However, Vidal (1999) cautioned, "The choice between spending more and spending less . . . is a false dichotomy. For the question here is not one of choosing between two equally good alternatives, one of which costs more. The question is one of the inherent unreliability of the telephone for meaningful communication of important legal matters" (p. 2).

If the purpose of including remote interpreting in the courtroom is to improve upon the current system, then we must take into account more than the financial benefit of utilizing remote interpreters. It is crucial that accurate interpretations be rendered in legal settings, and research into the effectiveness of remote interpreting in this setting is of the utmost importance. Decisions made in the courtroom have lasting consequences on the lives of those who work within the system. Swaney (1997) wrote that if we are improving our legal system through the use of remote interpreters, "Why don't we 'improve' the jury system by letting jurors go home to deliberate the facts of the trial via telephone or computer? Because there is no immediate substitute for human dynamics" (p. 1). It must be recognized that financial benefit is not synonymous with equal access.

Napier and Leneham (2011) investigated the effectiveness of VRI in a courtroom setting and found that VRI is a feasible option in certain situations; however, they maintained that technical, logistical, linguistic, and environmental issues must be considered in order to ensure that an accurate and quality interpretation can be

Exploring Remote Interpreting

successfully rendered. Issues included television-screen size, bandwidth speed, the visibility of the interpreters, background noise and visual distractions, lighting, set-up time, difficulty getting the attention of individuals who are not situated in the same location, turn-taking, knowledge of the physical layout of the space, and an inability to see people in certain places in the courtroom due to the fixed placement of cameras. Even when all of these issues are addressed, the authors suggest that VRI should not be the immediate and sole consideration when the services of an interpreter are needed.

Napier and Leneham (2011) conducted a series of interviews with the deaf participants in their study. Participants noted as negatives of VRI that they could not request clarification from the interpreter, that deaf family and friends in the courtroom could not access the interpretation, that they had difficulty focusing on the interpreter on the screen, that they suffered additional stress due to the method of interpretation (being understood in a 2-D environment), and that they felt disconnected from the interpreter. The interpreters reported feeling isolated and unsure of the effectiveness of their interpretation. They also asserted that they struggled with identifying who was speaking because they did not know where the individual was located in the room. Some of the hearing participants reported feeling as if they had to speak more slowly and stand in specific areas in order to be seen; however, most of the hearing participants thought that the interpretation was effective.

7. VRI in Mental Health Settings

Remote interpretation in mental health settings is not considered best practice for several reasons. Interpretations in this environment call for a high degree of trust between the interpreter and patient, and trust is more easily acquired in face-to-face encounters. Mental health settings can also be quite emotionally charged, and it is easier to understand the patient's emotions when there is clear visual access between the interpreter and the patient, which may not be the case with remote interpretation. Furthermore, technical difficulties would prove to be frustrating in this environment in which clear communication is so important. This is not to say that remote interpretation should never be used in mental health settings. Of course, as several of the aforementioned authors suggested, in small communities with few interpreters, the patient may prefer to work with an interpreter from outside of the area in order to maintain anonymity. An individual may prefer to use remote interpretation in order to ensure confidentiality; however, once again, remote interpreting should not be used without clearly weighing the pros and cons of its use as well as allowing the minority language-speaking participant to have a voice in the decision-making process. It is also important that interpreters are trained in how to effectively work in remote mental health interpreting settings in order to ensure quality of service.

8. VRI in Educational Settings

Interpreting remotely in a classroom environment can give rise to many challenges that may lead to an ineffective interpretation. Some of these problems are due to technical difficulties. Often laptops and webcams are used, which leads to visual constraints. The interpreter may not be able to see the entire classroom (blackboard, teacher, materials on the walls, other students, etc.), and the lack of access to visual information makes it difficult to accurately interpret information. For example, in a classroom the teacher may use graphs or visual displays; without seeing these, the interpreter cannot interpret information consistent with how it is presented. Technical challenges in this setting may also include poor lighting, background noise, and insufficient bandwidth.

Remote interpreting in an educational setting may also be challenging due to the interactive nature of many classrooms, including overlapping dialogue and occasional group work or role-playing scenarios for which the student moves away from the computer. VRI may be considered cumbersome for these reasons.

9. What Does This Mean for Remote Signed Language Interpreters?

In the interpreter education classroom, while students are learning about best practices in individual specializations, classroom work can incorporate mock remote interpreting scenarios to help students prepare for remote interpretations in various contexts. Students will begin to acquire strategies for asking for clarification, managing turn-taking, and working within a 2-D environment. After each practice session, interpreters should be given the opportunity to discuss their experience, which promotes the sharing of effective and ineffective strategies—interpreters can then put the effective strategies into practice in actual remote interpreting environments.

Interpreters can also share techniques for effectively navigating remote interpreting through workshops, intensive trainings spanning several days or weeks, or shorter courses that focus on individual topics. Workshops open to all ensure that not only new interpreters but also those who are already working in the field have access to training material. Topics for discussion in a workshop may include managing turn-taking, preparing for a video-interpreted event, working with remote interpreting in individual settings, presence and transparency in video interpreting, minimizing eye strain, troubleshooting and technology, acceptable versus unacceptable situations for video interpreting, and problem-solving strategies. Each of these workshops may include mock video interpreting situations in order to provide interpreters with realistic experiences.

As research is conducted and new information is acquired, interpreters should be made aware of important themes. New information may lead to the creation of best practices in particular settings, and sharing information will assist with the development of strategies for working in remote environments, ultimately resulting in the provision of quality interpreting services. Without standardization of norms and provision of training, participants in these interactions will continue to fumble their way through communication. It is crucial that we provide remote interpreters with the foundation of knowledge that they need in order to work effectively.

10. References

- Federal Communications Commission. (2005). *Title IV of the ADA*. Retrieved from <http://transition.fcc.gov/cgb/dro/title4.html>
- Gany, F., Leng, J., Shapiro, E., Abramson, D., Motola, I., Shield, D., & Changrani, J. (2007). Patient satisfaction with different interpreting methods: A randomized controlled trial. *General Internal Medicine, 22*, 312–318.
- Gile, D. (1995). *Basic concepts and models for interpreter and translator training*. Amsterdam, the Netherlands: John Benjamins
- Gracia-García, R. (2002). *Telephone interpreting: A review of pros and cons*. Retrieved from http://www.a2hc.org/articles/Telephone_Interpreting-pos_and_cons.pdf
- Keating, E., & Mirus, G. (2003). American sign language in virtual space: Interactions between deaf users of computer-mediated video communication and the impact of technology on language practices. *Language in Society, 32*, 693–714.
- Locatis, C., Williamson, D., Gould-Kabler, C., Zone-Smith, L., Detzler, I., Roberson, J., & Ackerman, M. (2009). Comparing in-person, video, and telephonic medical interpretation. *General Internal Medicine, 25*, 345–350.
- Mintz, D. (1998). Hold the phone: Telephone interpreting scrutinized. *NAJIT Proteus, 7*(1).
- Moser-Mercer, B. (2003). *Remote interpreting: assessment of human factors and performance parameters*. Retrieved from <http://www.aiic.net/ViewPage.cfm/page1125.htm>
- Moser-Mercer, B. (2005). Remote interpreting: The crucial role of presence. *Bulletin VALS-ASLA, 81*.

Exploring Remote Interpreting

- Napier, J., & Leneham, M. (2011). "It was difficult to manage the communication": Testing the feasibility of video remote signed language interpreting in court. *Journal of Interpretation*, 21(1). Retrieved from <http://digitalcommons.unf.edu/joi/vol21/iss1/5/>
- National Association of Judiciary Interpreters and Translators. (2009). *Telephone interpreting in legal settings* (NAJIT Position Paper). Available at: <http://najit.org/publications/positions.php>.
- National Consortium of Interpreter Education Centers Interpreting via Video Work Team. (2010). *Steps toward identifying effective practices in video remote interpreting*. Retrieved from <http://www.nciec.org/projects/vr.html>
- Registry of Interpreters for the Deaf Video Interpreting Committee. (2008). Video relay service and video remote interpreting: What's the difference? *VIEWS*, 7–8.
- Roziner, I., & Shlesinger, M. (2010). Much ado about something remote: Stress and performance in remote interpreting. *Interpreting*, 12(2), 214–247
- Swaney, L. 1997. Thoughts on live vs. telephone and video interpretation. *Najit Proteus*, 6(2).
- Taylor, M. (2005). *Video relay service interpreting task analysis report*. Distance Opportunities for Interpreter Training Center (DO IT Center).
- Vidal, M. 1999. "Telephone interpreting: Technological advance or due process impediment?" *NAJIT Proteus*, 7(3).