

Video Remote Interpreting (VRI) and Computer Aided Real Time (CART) Captioning Services in Minnesota Workforce Centers: A Technology Project to Improve Job Access Opportunities

Rubin Latz, State Coordinator for DHH – Minnesota Economic Security, Rehabilitation Services Branch;

Judy Morgan, Project Manager – CSD of Minnesota;

Steven Boone, Director of Research – University of Arkansas, Rehabilitation Research and Training Center (RRTC)

Abstract

This session described and reported the results of the Video Remote Interpreting (VRI) pilot project that used videoconferencing technology to help increase access to WorkForce Center services in three Greater Minnesota locations. Through the project, deaf and hard of hearing (DHH) consumers accessed VRI and computer aided real time (CART) captioning services. While DHH consumers prefer face-to-face communication, direct and timely communication is not always possible due to the shortage of qualified interpreters and captioners, particularly in rural Minnesota. The pilot project pooled resources of the U.S. Department of Labor; U.S. Department of Education - Rehabilitation Administration; Minnesota Department of Economic Security – Rehabilitation Services; CSD of Minnesota; The University of Arkansas – Little Rock Rehabilitation Research & Training Center; and the Minnesota Department of Human Services Deaf and Hard of Hearing Services.

On a daily basis, Minnesota experiences the “national crisis in interpreting” jointly declared by the National Association of the Deaf and the Registry of Interpreters of the Deaf. Demand for qualified interpreters continues to far outpace the supply – both nationwide and locally.

This Video Remote Interpreting (VRI) pilot project was designed to improve access to Minnesota’s WorkForce Center (WFC) system services in three rural Minnesota sites: Rochester, St. Cloud, and Brainerd. These “Greater Minnesota” locations range from one to two hours from the Twin Cities (St. Paul & Minneapolis) area. The sites were selected from among 53 Minnesota WFCs on the combined basis of

rural location, proximity to local telephone companies offering ISDN lines, and available onsite support staff. In addition, they had populations of potential users – people who are deaf or hard of hearing (DHH), including non-signers, and people with limited signing skills. Rochester and St. Cloud both have active deaf communities, while Brainerd has a small cohort of DHH students at the Central Lakes College.

The VRI pilot project selected and installed videoconferencing technology to help increase access to WorkForce Center services in the three rural locations and at the fourth location in the Twin Cities. CSD of Minnesota was selected as the technical assistance provider to coordinate the interpreter and CART requests for the project.

While DHH consumers prefer face-to-face communication, direct and timely communication is not always possible due to the national shortage of qualified interpreters and captioners, particularly in rural Minnesota. By using videoconferencing, the wait was reduced from two weeks to one or two days. DHH consumers were connected with interpreting and CART service providers from a pool in the Twin Cities metropolitan area on a scheduled basis. The pilot project also included capacity for filling walk-in requests for such services as well.

Project Design

Sign language interpreters & CART services are provided remotely – that is, from one geographic location to another via Integrated Services Digital Network (ISDN) lines. Three lines at 128 kilobits per second or “kbps” offer 384 kbps transmission from the Twin Cities offices at CSD of Minnesota to greater Minnesota locations. Polycom H323 Videoconferencing equipment was selected and installed at the four locations. The project enables DHH customers to tap the larger pool of available interpreters and CART providers in the Twin Cities metropolitan area. By using videoconference technology, the time required to secure these services was shortened from the usual one-to-two weeks to as little as one day.

To gain access to these services, the customer at the remote site requests an appointment. The onsite WTC support staff, whose signing skills are extremely limited, coordinates the appointment with professional staff and then confirms the conference room availability. WTC staff generate the interpreter or CART request (by

phone, fax, or e-mail to CSD), assists with equipment start-up at time of service, assures customers get evaluation forms, and forwards those along to CSD for distribution. At the time of service, the remote site customers see the interpreter or the CART transcription on a 27-inch monitor, while the interpreter or CART provider at CSD sees the remote customers on a similar but slightly larger (35-inch) monitor. Approximately 16 individuals in the pool of freelance interpreters are trained in operating the videoconferencing system. CART services are purchased from a small group called Paradigm Reporting & Captioning, Inc., who has provided services to the legislature, many state agencies, and local news stations.

The project was aimed at improving communication access. Employers improved their access to a hard-to-reach pool of job seekers. DHH consumers of the WorkForce Centers had more immediate access to interpreting or CART services for job interviews, opportunities to learn about resources and training opportunities, or opportunities to attend counselor meetings.

WTC staff, interpreting referral staff, and interpreters were trained to use the videoconferencing equipment. Most requests for services were made "online" and received responses within 24 hours. It was also necessary to train consumers on how to dress and what to expect in terms of hand motions and speed.

The VRI project was introduced to Minnesotans during a series of *Open House* events where videoconferencing technology capabilities were discussed by using "live" demonstrations. All participants at the events were asked to provide feedback by completing evaluation forms. A small group at each location was selected to participate in focus group discussions about how they saw themselves using the technology in the future. Ongoing evaluations were gathered after each VRI session, and follow-up focus groups were convened six months into the project. All the data gathering and analysis was provided by the University of Arkansas - Rehabilitation Research & Training Technical Assistance Center in Little Rock.

Project Evaluation

Faculty from the University of Arkansas RRTC for Persons who are Deaf or Hard of Hearing designed a two-part approach to evaluate the remote strategies used in Minnesota. The two strategies were modeled after approaches that had been successfully used before by the RRTC to evaluate remote services in Nebraska and Maryland. The two strategies selected allowed the project to assess satisfaction both prior and after actual use of the technology.

The initial strategy was to conduct focus groups at each of the participating sites to assess opinions regard-

ing this service delivery alternative prior to actual use. Following a demonstration of the technology, focus group participants were asked a number of key questions designed to assess attitude toward using the technology. To further demonstrate the approach, interpreting and CART services for these groups were provided using the remote approach. Project faculty led three focus groups that included a total of approximately thirty participants. Feedback obtained from the participants was very positive regarding the potential of this strategy. Comparable focus groups of users will be held at the conclusion of the project to see whether this positive view was supported following use.

The second strategy was to provide a written questionnaire to users after they had actually used remote technology. This one-page questionnaire included a number of questions that assessed satisfaction with multiple facets of the technology, their perception of the expressive and receptive communication via the technology, the types of situations in which the technology was used, and the sociodemographic characteristics of users. Preliminary results are based on thirty-five persons who used the technology during a six-month period. Interestingly, all thirty-five users requested and were provided remote interpreting. No users requested CART services via this technological approach.

Multiple questions targeted adequacy of the communication when using the technology. For example, seven questions assessed dimensions, such as speed of communication (fast-slow), natural (unnatural - natural), ability to follow the communication (easy to hard to follow), number of communication mistakes, and comfort of communication (uncomfortable to comfortable). Two specific questions assessed quality of the video and audio provided by the technology. Other questions specifically addressed the users' ability to communicate expressively and receptively through the technology. Examples of receptive dimensions included the ability to understand signs or CART, see facial expression, or read fingerspelling. Examples of the expressive dimensions included perception of user understanding, ability to sign fluently, and ability to repeat and clarify signing. Results of these analyses indicated that participants were satisfied and comfortable with the communication achieved using technology. Preliminary results indicated that on most dimensions mean ratings of the group were high - over eight on the ten-point response scale used.

Consistent with the service delivery network in which the technology was being used, most calls were for interpreting for employment-related services delivered through vocational rehabilitation or employment services of the Workforce Centers. Key service needs were in the area of job seeking, especially employment

interviewing. The efficacy of this approach to service delivery was evident in that about 85 percent of users said they would use the service again and 12 percent would probably use the service again. Only three percent of users said they would not use the service again.

Users included both persons with and without hearing loss. Consistent with the interpreting services requested, most users used sign language to communicate and described themselves as deaf or late deafened. As expected, remaining users were hearing individuals who needed sign language interpretation. About equal numbers of males and females used the service. The age of users reflected the entire gamut of potential users, but primarily persons of working age (25-54) were involved, a finding consistent with the service delivery setting.

Conclusion

In conclusion, preliminary results were highly positive on all dimensions. However, these results should be viewed cautiously, since they are based on small numbers of actual users. In fact, encouraging use throughout the six month period was a significant challenge. Those considering implementation of this technology would be advised to clearly assess the need and potential market for the services. Beyond solving technological problems in setting up the service, key decisions will include such practical issues as how to advertise and make these services available in potential users' natural environments. As the project proceeds to completion, more users will be identified and the results will be based on a larger pool of users. Practical problems will continue to be addressed to employ this technological approach to providing interpretation to individuals who experience the shortages of interpreters in much of the United States.

End Note: The project pooled resources of the U.S. Department of Labor; U.S. Department of Education-Rehabilitation Administration; Minnesota Department of Economic Security - Rehabilitation Services; CSD of Minnesota; The University of Arkansas - Little Rock Rehabilitation Research & Training Center; and the Minnesota Department of Human Services Deaf and Hard of Hearing Services.