

Same Problem, New Solution

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The same problem is, of course, the challenge of teaching English to deaf students. Oklahoma City Community College has always had an open door policy, meaning there are no admission requirements other than a high school diploma or equivalency. Many of our students, hearing or Deaf, have needed remedial instruction, especially for English. A developmental “Learning Skills” curriculum was created in order to address those deficiencies.

When a grant established the Deaf and Hard of Hearing Program in 1990 to provide extended services to Deaf students, beyond mandated accommodations, students who did not have the skills to enter college English Composition were placed with an interpreter into the Learning Skills courses. Over the years this placement created some frustrated students, interpreters, and faculty members. In response we explored other options. English as a Second Language (ESL) had long been a program on our campus taught by instructors specifically trained in second language acquisition issues. This seemed to be a viable choice for Deaf students, so they were placed in ESL courses with interpreting services. But before we could determine if this was an appropriate placement, the focus of the ESL program changed from reading and writing to listening and speaking.

Responding to that change, separate English courses were initiated with a Deaf instructor who would teach English using ASL. We offered our first course in the fall of 1997 by adapting the Learning Skills College Writing I curriculum. Based upon the Deaf students’ responses, we offered subsequent courses for Deaf students during the rest of that academic year and into the next.

The English Department supported the part-time Deaf instructor philosophically as well as financially, but—due to budget challenges—a strict enrollment policy was initiated. Twelve students were considered minimum enrollment, which posed a challenge for the Deaf Program. There were not enough “regular” full-time students to support the class minimum. To increase enrollment, a local civic club agreed to provide scholarships covering the cost of the English course for Deaf nontraditional part-time students. The numbers met the minimum enrollment requirement for a couple of semesters, but it became evident that we would not be able to generate enough new students to preserve the courses. Searching for other avenues to build enrollment, professional networking discussions revealed that other institutions with Deaf students were having the same problem of providing appropriate English instruction. The new solution became distance education. Using distance education would provide quality instruction for their students and increased enrollment for maintaining our courses.

Same Problem, New
Solution...Technology!

Distance education in Oklahoma has a specialized program called “OneNet” (see Appendix I). All colleges, universities, technical centers, and high schools are networked together to provide classroom interaction over distances. The system functions with full motion video relay that provides smooth transmission of movements essential for communicating clearly in sign language. In the spring of 1999, we piloted a distance education

English course for the Deaf. We teamed with a four-year institution that had a considerable Deaf enrollment but which did not have specific English classes for the Deaf. This partnership would allow both institutions to share resources, “their students,” “our classes,” and we all believed this to be a “win-win” proposition.

The actual implementation of this distance education class and the procedures to utilize the technology proved to be not so simple a solution.

The Technology

The distance education classroom on our campus was designed specifically to use the technology for the maximum student/instructor interaction. (See Appendix II). The two televisions located in the front of the room recorded everything that happened inside the classroom and allowed the students to see each other as well as view overhead documents. The four televisions in the back of the room were used to view other sites. Since we only had one site, the first television on the left (number 1) was used. Students from the “other” site could be seen on that set at all times. The fourth television carried a view of the instructor and the “home site” classroom. On each table was a microphone that controlled the student’s video camera. The cameras were located in the front and back of the room. Students would press the microphone on and the video camera would automatically focus on them. The technician could manually focus the camera, especially if it needed to be closer. The instructor’s camera was manually programmed so her image would fill most of the screen but in order for that to happen she had to remain seated and was not able to move about the room interacting with students. There was a fax machine for sending homework and testing back and forth between the two sites. There was a phone in case of technical emergencies. The room was also equipped with two computers. The first computer allowed access to the Internet and basic “office” software. The second computer controlled all of the technical functions within the classroom. Underneath the main computer were two VCRs. Every class was recorded in case of technical difficulties or absent students. The technician could also view the tapes to determine if any changes needed to be made. The other VCR was for watching videos and since this was a vocabulary class, it was never used. The other site classroom was

not as “studio like” as ours but had basically the same equipment.

Same Problem, New Problems

Procedural problems for using the technology had to be conquered before smooth communication between sites could occur. In order to communicate, the students at the other site would tap on their microphones when they had a comment. The instructor would be alerted to this and the technician would “switch” the front television from its present image to the new image at the other site. The students at either site were not accustomed to this procedure and would often forget to “touch” the microphone before signing/speaking. Sometimes it was difficult to clearly see the students’ signs at the other site. This was because the camera was not focused close enough and we could not control it from our campus. Figuring out their fingerspelling was almost impossible, even though full motion video relay was used.

Not having a technician that could sign at the other site was also a problem. The students at that site were unable to make their needs known directly to the technician when something was not functioning properly. Just having a small understanding about deafness would have been helpful. To illustrate this point, during one of the class sessions the video portion of the transmission disconnected; the OneNet technician did not understand why we could not just rely on the audio portion and continue the class as a regular distance education class would.

One other problem we encountered was the interaction between the instructor and the students at the other site. Each class was videotaped to provide instruction for students who were absent as well as providing a means of monitoring the class for the purpose of making improvements. When we switched the television screen from our classroom to the other site for questions, their image was brought up on the front televisions that were used for making the recordings and the questions were recorded. However, the instructor would automatically respond before the “switch” could be made again and her answers were not recorded on the video. In essence the videotape only recorded half the conversation. An absent student viewing the tape would not have the benefit of the instructor’s answers.

Another problem was scheduling. The university that we “partnered” with completed their academic schedule two weeks earlier than our campus. We were unaware of the differences between our two schedules when we began and the university students had to drive from their hometowns to complete the course.

Same Problem, New Solution...Successes

Reviewing this endeavor we felt we accomplished our initial objectives, which were to reach more students and maintain the specialized English course. Using this technology allowed more Deaf students from other institutions to benefit from a specialized course taught by a Deaf instructor, thus reducing the replication of programs and enhancing the ability to share resources. We learned from the challenges we encountered and feel better prepared to offer additional distance education courses in the future.

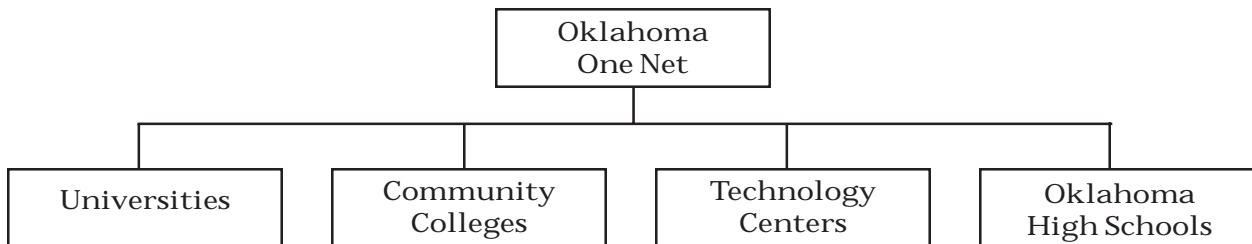
Same Problem, Future Solutions

Unfortunately, the Deaf instructor is no longer here, nor the full motion video that made this class possible. The OneNet System has opted to compress the bandwidth it uses to deliver distance education. The decision was linked to cost factors but the compression produces a delay and therefore is not capable of the smooth visual display required for accurate sign transmission. There are other systems such as “Procam” and “Team Station” that can be used to facilitate distance visual communication, and we have begun to explore their capabilities and although not “full motion,” they might have some application for serving Deaf students.

It is our belief that technology will continue to improve and offer opportunities to meet the needs of Deaf students. Hopefully you can benefit from our experiences by avoiding some of the problems and capitalizing on the successes.

Appendix I

Flowchart: OneNet and Its Affiliates



Appendix II
Distance Education Classroom Setup

