

Provost's Learning Innovation Grant for 2010-2011

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Project: "Integrated technology-based learning in foreign languages": Integration of interpreting, notetaking, and online interaction to enhance hearing and deaf students communication skills in the target language

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At the opening of this grant activity there were several issues, from the perspective of a sign language interpreter that I wanted to address. The primary challenge in foreign language interpreting is how to most effectively represent a spoken, second language through visual/sign language methods. The challenge in this arena lies in the fact that use of ASL may lead to first language intrusion in the minds of Deaf and hard-of-hearing students participating in foreign language courses, visual representations of the second language used during class may not directly map to what students are being tested on and asked to retain, and participation by Deaf and hard-of-hearing students may be constrained by the knowledge base/fluency of the sign language interpreter and the interpreter's ability to "retranslate" the communication mode used by the Deaf and hard-of-hearing student back into the foreign (target) language. Furthermore, the instructor may be faced with the challenge of differentiating between student skill and interpreter skill when listening to target language produced via the voice of the interpreter. Work done through this grant therefore addresses the following questions:

1. What methods and best practices can be employed to lessen the intrusion of English-based sign systems and ASL in a foreign language class?

2. How can Deaf and hard-of-hearing students participate more effectively in the dialogic activities of the foreign language classroom?
3. How can technology be combined with sign language interpreting to better serve the needs of Deaf and hard-of-hearing students in studying foreign languages?
4. Are there common strategies that can be employed with Deaf and hard-of-hearing students who utilize a variety of communication methods and bring differing communication backgrounds to the classroom?
5. In what ways can the instructor and interpreter work as a communication team to support student learning?
6. What are areas for future study as it relates to providing access services in foreign language classes?

Addressing #1 What methods and best practices can be employed to lessen the intrusion of English-based sign systems and ASL in a foreign language class?

The interpreter solicited feedback from students during Fall/Winter/Spring quarters to address this challenge. A focus group of students in foreign language classes was also held Winter Quarter to gather further input on student preferences in working with sign language in foreign language classes. A common theme that arose among students was that ASL is often translated in the minds of students into English; the students then have to “translate” from English into the foreign language of study. This creates an unnecessary English language intrusion in their thought processes.

Note: When English is not the first language of the Deaf student this creates the challenge of thinking in two, second languages simultaneously.

To address this issue I studied and incorporated Italian Sign Language (LIS) into my signed discourse. New vocabulary was introduced first by fingerspelling, using the American system of fingerspelling, followed by an introduction of an Italian sign for frequently used Italian nouns, verbs, expressions, etc. Three students in the Italian class reported that this introduction of LIS allowed them to “think” more directly in Italian. (A tutorial of LIS signs was produced for future interpreters to use for preparatory work in Italian language classes).

Note: the LIS system of fingerspelling of letters and alphabets was not introduced in class. In the opinion of this interpreter this would be extremely challenging for interpreters and deaf students to learn both while also learning the spoken/written Italian language.

Addressing #2 How can Deaf and hard-of-hearing students participate more effectively in the dialogic activities of the foreign language classroom?

Deaf and hard-of-hearing students participate in classroom activities with their hearing peers in a variety of ways. Some students prefer to use their own voices, some ask that the interpreter voice for them as they use sign language. It is imperative that the sign language interpreter has access to all homework and curricular materials to prepare for student participation in the class. When Deaf and hard-of-hearing students give live presentations, they are required to type using a laptop with the interpreter becoming their voice. This presents a more accurate representation of the students’ skill with the language, rather than focusing on the language skill of the interpreter or leaving doubt in the instructor’s mind as to what language is generated by the student and what is interpreted via the skill level of the interpreter.

When students are interacting in small groups or one-on-one activities it is always best to have a variety of options available that match individual preferences of students. During this grant students had the options of using the PC tablet to communicate one-on-one via typing, had the interpreter available to sign and vocalize between mixed groups of Deaf and hearing students, and students also had the option to use paper and pencil to write and interact. This last option appears to require more time to complete and therefore does not compliment activities of short duration. The interpreter in the classroom monitored the one-on-one activities of students and was available to offer communication assistance when requested by either hearing or Deaf students or the instructor.

Addressing #3 How can technology be combined with sign language interpreting to better serve the needs of Deaf and hard-of-hearing students in studying foreign languages?

Some Deaf and hard-of-hearing students prefer to write using paper and pen and ask that their hearing peers respond in kind, others prefer to use technology to write and keep an electronic record via a computerized system. What we have discovered through this grant is that the combination of computer-assisted notetaking with interpreting provides greater accessibility to classroom communication. Dialogic activities between students and with the instructor are enhanced with a laptop that provides visual notes and emphasizes clear spelling of vocabulary, conjugation of verbs, etc. Some deaf students use the computer to participate in one-on-one discussions, rather than use a third party interpreter to mediate communication. A written record of the communication can then be saved for use in study of course material. A key discovery this interpreter has made during this grant is that it is useful to communicate with the student notetaker to ask that he/she electronically highlight components of the lesson that are more quickly communicated through written form. The interpreter can then elaborate or base subsequent interpretations on notes that are present for the Deaf and hard-of-hearing students to

view real time. It is suggested that future interpreters, students and instructors explore further ways in which the communication team of the instructor, interpreter and computer-assisted notetaker can mutually support each other to enhance the visual learning experience of students.

Addressing #4 Are there common strategies that can be employed with Deaf and hard-of-hearing students who utilize a variety of communication methods and bring differing communication backgrounds to the classroom?

Regardless of the variety of communication modes employed by Deaf and hard-of-hearing students (ASL, Signed English, real-time captioning) all are visual learners. The sign language interpreter is challenged with taking a spoken/auditory language and producing a visual form of the language. In the first year of language instruction a heavy emphasis is placed on learning the grammatical structure of the language. In order to do this, it is the strong belief of the interpreter in this study that a “skeleton” of the language will allow all students utilizing interpreting support to better construct and apply different components of the language. For the Italian language course a specific system of hand shapes to indicate components of the language was developed and introduced into class. (The system incorporates, but is not limited to verbs and conjugation of verbs, indication of tense such as present, future, past (passato prossimo, imperfetto, passato remoto), moods such as subjunctive with present and past markers, relative clauses, etc. These sign representations were introduced to students during the first quarter of instruction and then used consistently during first and second year study of Italian. The DVD tutorial also contains explanations of how language/grammatical components are produced, for instructors and future interpreters to use to their benefit.

Note: the original 3 students in class, and now the one remaining Deaf student incorporated and utilized the devised system to

respond to instructor's questions and to ask questions related to temporal and subjunctive aspects of the language. The consistency with which students reproduced this "short-hand" system of indicating grammatical/syntactical components of second language learning seems to support its use and benefit in student comprehension and participation in the classroom.

Addressing #5. In what ways can the instructor and interpreter work as a communication team to support student learning?

Similar to any classroom where sign language interpreters are assigned, open communication between the instructor and interpreter better creates a supportive learning environment for Deaf and hard-of-hearing students. The following strategies were utilized throughout the year's study:

1. Course materials provided to the interpreter prior to their introduction in class. This includes the course textbook, daily handouts, and access to other course information via MyCourses. The instructor often provided the interpreter with a brief explanation as to the goal of a specific handout to support interpreter processing.
2. Communication during class time – the interpreter was able to communicate to the instructor when a particular aspect of the learning experience was "lost in translation" – to give the instructor a better understanding of where tutoring time with students could support daily lessons and activities, or develop other strategies to effectively present information to Deaf students. Communication between the interpreter and notetaker was also supported so that work between both could compliment information being provided in note form.
3. The instructor took on the initiative of learning basic signs of ASL, fingerspelling, and incorporated some LIS signs. In that way she was able to monitor and support the work of the

interpreter, at times recognize and correct errors or miscues in interpreting work, and directly and expeditiously communicate with her students.

Note – monitoring of interpreting work was handled in a supportive, non-judgmental manner, the interpreter and instructor both acknowledging that no interpretation is 100% accurate and that supportive monitoring as a communication team provides an optimal learning environment. Deaf students participating in this study saw this process of open communication and also began to participate by the end of the year, which appeared to give them an added sense of ownership and confidence in the learning environment.

4. The instructor was committed to providing audiovisual materials with Italian captioning. When not available the instructor provided handouts with texts, song lyrics, etc.
5. The interpreter was given access to computers and materials available in the Foreign Language Technology Center (FLTC) to aid in preparation.
6. The instructor and interpreter worked together to learn how to use technology in the TLT studio and discovered where to best place the interpreter prior to classroom work. This provided optimal visual access for students, and also allowed the interpreter time to develop work strategies that incorporated visual materials and signed interpretations in a natural and effective manner.

Addressing #6 What are areas for future study as it relates to providing access services in foreign language classes?

1. In what ways can interpreting and technology be further integrated to promote access in foreign language classes? Are there ways for example, to provide video remote interpreting (VRI) for students participating in study abroad programs?

- This may prove to be more cost effective, rather than sending interpreters on site, but could it hinder full participation in travel activities and/or social activities that are a part of the program? What technological investments would RIT/NTID need to engage in to provide a robust VRI structure from country to country and/or continent to continent?
2. Should RIT/NTID investigate the placement of interpreters on screen alongside notes and other audiovisual materials? Allowing the student to watch one site, the computer screen, may decrease the confusion caused by students having to make decisions on which part of the classroom to watch. The TLT studio would be an ideal place to conduct further research regarding this question? Would this lead to virtual segregation of Deaf and hard-of-hearing students and create less of a connection with the human interactions occurring in the classroom setting?
 3. How much actual time and professional focus should RIT/NTID interpreters engage in learning and maintaining foreign language skills (such as LIS, German sign, etc) to the possible detriment of their primary focus of ASL skill development? What is the cost/benefit scenario of this second language development in terms of both individual interpreters and the collective skill base housed within the Department of Access Services?
 4. How much time and professional focus should RIT/NTID sign language interpreters engage in the development of second, spoken language skill development in order to support the increasing focus of global studies among RIT hearing and Deaf students? (Cost/benefit analysis would need to be considered, similar to #3 above)
 5. Currently DAS is not able to provide interpreting support for languages that have written systems that are very dissimilar to Romance languages and languages that have similar alphabetical systems (French, German, Spanish, Portuguese, Italian) Are there lessons to be learned from this study that

can be applied to languages such as Chinese, Japanese, and Arabic?

6. A focus group of foreign-language faculty teaching in mainstreamed classes was also conducted. A common theme among faculty was the desire for orientation to working with Deaf students and interpreters, learning basic signs to connect with students, and learning methods of making accommodations to classroom methodologies that support access in the learning environment while not detracting from curricular goals. Sign language interpreters often provide information to instructors in an ad hoc manner. To date there is no organized, consistent program for support of faculty teaching foreign language in mainstreamed (Deaf-hearing) courses. This area presents the opportunity for further project development.