Summary

(M11D)

Video-tutorials for Tech Sign Vocabulary in Astronomy

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Technical vocabulary in science courses represents a huge challenge for deaf students at all levels of instruction. Misconceptions in science have been reported to occur when ASL signs are used. Egelston-Dodd(1998) described a first-year college student who explained the phases of the moon by showing a giant letter C, sides of which could be seen from various angles as the moon rotated and revolved around the earth. The C-handshape sign for "moon" no doubt prompted the misconception. Other sign-based misconceptions were cited in the article.

To provide a common ground for the introduction of new terms in the course, "Processes of Science: Astronomy," six video-tutorials were designed, one for each unit of content. An average of 10 to 12 new terms are introduced using a professional interpreter who used ASL to communicate and teach the definitions. To support the signed definitions, graphics and short English print phrases taken from the course content on the Web site were included on the video-stream.

Spring Quarter, 2003 students(N=25) in the course were asked to view all the video-tutorials and evaluate the benefit of spending out of class the 20-30 minutes required for learning the technical vocabulary before the teacher taught the material in class. The evaluation results were uniformly positive. All students reported they felt they learned more from class as a result viewing the tapes. All students reported they got a better grade as a result of viewing the tapes and, in fact, the class average on the final exam was eight points higher than the previous year. Additionally, the

class was easier to teach after the students had exposure to the technical vocabulary presented in ASL, since everyone used the same signs for the difficult special concepts in astronomy. Students rated their satisfaction with the instructor's sign communication skill as 4.5 out of 5 on the NTID Student Rating Survey.

Other courses are being considered for development of video-tutorials at this time.