

2008 NCTI *Technology in the Works* Abstract: Supported Video Project Making Video Content Accessible to All

The *Supported Video Project* is a collaborative research initiative between *CaptionMax*, a media access company dedicated to making electronic media accessible to children and adults with sensory disabilities, and the *National Center for Supported eText (NCSeT)*, a national research center investigating the impact of supportive resources on the comprehension of digital text. The proposed research builds on innovative work conducted at CaptionMax to develop enhanced accessibility features for educational videos in DVD format, with the long term goal of improving the comprehension of video content in educational settings for all students.

The *Supported Video Project* will investigate the educational impact of two specific accessibility features for video content: (a) “enhanced captions” and (b) “expanded audio descriptions”.

Enhanced captions are standard captions with links to additional information designed to deepen their educational value. In this research we will investigate enhanced captions with links to glossary definitions for key vocabulary words. *Expanded audio descriptions* are longer, more detailed audio descriptions of on-screen content, accessed by allowing students to freeze the video, thus freeing the description from time limits imposed by the existing audio track.

Although designed to increase access to video content for individuals with sensory limitations, these UDL features could increase comprehension of video content for all learners.

The *Supported Video Project* will conduct two research studies, each designed to answer one of the following questions:

1. Do deaf and hard of hearing students with access to “enhanced captions” have increased comprehension of electronic video materials on DVD when compared to students with access to standard captions?

2. Do blind and vision-impaired students with access to “expanded audio description” have increased comprehension of electronic video materials presented on DVD when compared to students with access to standard audio description alone?

Each of the two studies will employ a randomized, counterbalanced crossover design, which calls for random assignment of subjects to two groups, with each group receiving both the treatment and comparison condition, counterbalanced for order effects. The Treatment condition in both studies will be the enhanced accessibility features (either “Enhanced Captions” or “Expanded Audio Descriptions”). The Comparison condition in both studies will be the standard accessibility features (either “Standard Captions” or “Standard Audio Descriptions”). Both studies will be conducted in two phases, with preliminary results from Phase 1 available for presentation at the NCTI conference in November. Phase 2 will be completed by the end of December, with a final report submitted the end of January, 2009. All DVD materials used in the study will be created by CaptionMax using in-house expertise and equipment. All aspects of the research will be coordinated by Dr. Lynne Anderson-Inman, director of the National Center for Supported eText (NCSeT) at the University of Oregon. Results will be disseminated in manuscripts submitted for publication, conference presentations, and postings of an executive summary on appropriate Web sites, including those of NCTI, NCSeT, and CaptionMax.