

Final Report on: Design, Development and Implementation of Audio/Video Capture Technology to Enhance Effectiveness of the Disfluent Speech Transcription Process

Principal Investigator: Patricia A. Mercaitis, Ph.D., Associate Professor, Dept. of Communication Disorders Amherst Campus, School of Public Health and Health Sciences

The original goal of my project was to use audio/video capture to facilitate instruction in transcription and analysis of stuttered speech within a blended learning environment. Using Quicktime, MP3, and Captivity technology, graduate students were provided with a selection of audio and video clips to facilitate their clinical proficiency in identifying and differentiating between normal and abnormal disfluencies, as well as accessing, transcribing and analyzing.

I projected that I would utilize the following task sequence to accomplish my project goals:

1. limit the video clip selection to 5 video clips,
2. select [and order the 5 clips according to a complexity continuum], provide screencast instructions (using Captivity software) on requirements for downloading the clips (informing students that they need Quicktime and high speed computer connection).
3. provide keywords and acronyms to identify each type of normal versus abnormal disfluency,
4. provide [an electronic] quiz to assess students' knowledge of normal versus abnormal disfluencies
5. provide completed templates for comparison and verification after the student has transcribed each of her/his samples to insure accuracy and validity
6. provide enhanced analysis criteria to guide the quantification process

I made some minor changes in my objectives. For example, in objective #2, I decided to forego the use of a complexity continuum for the 5 transcripts as the entire electronic transcription process was so new and challenging to the students that we focused more on the importance of transcribing accuracy than complexity. I omitted objective #4 and substituted a traditional paper and pencil test for assessing students' knowledge of disfluencies. I also decided to modify the self-evaluation process which students completed once after the end of this course instead of after each transcription as originally described.

I have accomplished all of the above-mentioned objectives toward my original goal. I have analyzed the post-course survey of this innovative teaching/learning process. Students strongly agreed or agreed that this method analyzing disfluent speech samples was helpful, efficient and time-effective. I submitted a proposal by March 1 2009 for a peer-reviewed presentation at the November 2009 annual convention of the American Speech-Language-Hearing Association Convention. My proposal was accepted for presentation. This project will also be submitted for publication consideration in an online fluency disorders journal, www.journalofstuttering.com. I am using the remaining student work study funds during this summer to create the posters for the November presentations, as well as to assist with the completion of the objectives which I didn't implement last fall. Some questions raised by my involvement with this project would include: how can this project be generalized for wider use by students throughout the U.S.?

This has been a very exciting and challenging personal teaching improvement process; one that I would highly recommend to other faculty members, and one that I am deeply grateful for the opportunity to pursue. Some of the qualitative comments provided by my students that I can share include the great utility of teaching and learning in blended environments. I would evaluate this program as being very beneficial to those of us on faculty who prioritize the enhancement of teaching and learning. The grant program was managed in a very efficient and effective manner.

Respectfully,

Pat Mercaitis, Ph.D. Associate Professor & Director,
Center for Language, Speech & Hearing UMASS Amherst