

1. Cover Page

a. Project Title - Design, Development and Implementation of Audio/Video Capture Technology to Enhance Effectiveness of the Disfluent Speech Transcription Process

b. Personal Teaching Improvement Grant Competition

c. Principal Investigator

Name: Patricia A. Mercaitis, Ph.D.

Title: Associate Professor

Dept.: Communication Disorders

Campus: Amherst, SPHHS

d. NA

e. 358 North Pleasant Street

Amherst, MA 01003

Phone: 413 545 2007

Email: [Mercaitis@comdis.umass.edu](mailto:Mercaitis@comdis.umass.edu)

f. Total amount of funds requested for distribution to the Amherst Campus - \$6687.00

g. Project Abstract

This project will focus on use of 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 will be 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 disfluent speech samples.

h. Signature of Principal Investigator's Dept Chairperson

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Jane A. Baran

i. Signature of Investigator's Dean

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Nancy Cohen

j. Signature of Provost

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Charlena M. Seymour

2. Cover Letter from Principal Investigator

Please see attached letter

3. NA

4. Project narrative

This project will inform colleagues on the effective use of video capture, MP3, and Captivity screen casting technology to facilitate the teaching of transcription and analysis of stuttered speech samples within the blended learning environment. Because graduate students in Speech-Language Pathology are expected to become proficient in both the transcription and analysis of disfluent (stuttered) speech during their required course in Fluency Disorders, it was deemed critical to design an easily-accessible, efficient and effective, technologically-enhanced method of accomplishing this course goal.

As part of a pilot project which began in mid-semester of Fall, 2007, I used Quicktime video-clipping processes to create and provide speech samples which my students could then access from my Blackboard Coursesite. They were also provided with an electronic transcription template which they could download and print for ease of data entry. They were instructed to view and select 2 from 20 video clips, transcribe 100 syllables from each of these two clips, and then analyze the speech samples according to previously provided criteria. Discussion and collaboration among classmates on transcription issues and techniques were enhanced as a result of these technologically-enhanced learning experiences. In addition, use of this technology worked well in achieving the course objective noted above in a manner which had previously been limited to class time only, and which had been time-consuming and unwieldy given the previous methodologies that had been employed to achieve this

objective. Students had numerous opportunities for transcription practice and collaboration with classmates, and they reported greater satisfaction with this method of learning. This pilot project provided valuable information on the advantages of this added course component. Students could access these clips online at their convenience to practice and develop their transcription skills. While they accomplished these transcription goals, analysis and discussion of the transcriptions were not entirely feasible due to the paucity of time remaining in the semester schedule.

Accurate analysis and discussion of students' transcriptions of stuttered speech remain as additional components to be added to this technologically-based skills component of this graduate course. Within this proposed project, I will refine this video-based speech sampling course component to include not only transcription of speech samples; but also the final important step of analysis and threaded discussions on the stuttered speech transcriptions.

Given that student access to such course content using this technology has greatly enhanced both the teaching and learning process, it is anticipated that further progress on analysis of transcribed speech samples will be facilitated within a more refined task analysis sequence. This task sequence will include:

1. limiting the video clip selection to 5 video clips,
2. selecting and ordering the 5 clips according to a complexity continuum,

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

Assessment Plan - My methods for assessment of the efficacy of this learning module will include a combination of: 1) The development and use of a required student self-evaluation form to determine which aspects of the learning module worked best to accomplish the technologically-based goals of transcription and analysis. This self-evaluation form will be completed and submitted after each of the 5 transcription tasks has been completed. The evaluation will focus on aspects such as: usefulness of the screencast instructions, ease of access of the video clips, use of the video clips, usefulness of the stated procedures such as keywords, acronyms, and the electronic quiz to facilitate knowledge and skill in the transcription of stuttered speech, overall amount of time needed for transcription of each clip, ease of computing types of

disfluencies in preparation for analysis, and analysis of data. 2) technological collaboration with Fred Zinn, Professional Staff member in Academic Computing within Office of Information Technologies, and professional collaboration with the staff within the Center for Teaching. Professional collaboration and student data will be used to inform my decisions on further refinement of this learning module.

5. Project Deliverable - results of this project will be submitted for peer-review presentation at the 2009 annual convention of the American Speech-Language-Hearing Association Convention. The project will also be submitted for publication consideration in an online fluency disorders journal, [journalofstuttering.com](http://journalofstuttering.com).

6. Budget Justification - Funds are requested for graduate student assistance in the various aspects of this project, technical collaboration time with OIT staff to develop the transcription comparison templates and mechanism for verification with student transcriptions, and purchase of Captivity software.

**Line Item Budget**

Personnel - graduate student work-study	\$6000.00
Technical assistance with OIT staff	500.00
Software	187.00
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	\$6687.00

**7. Project Timetable**

**March to June 2008 - notification of decisions re: funding, hiring of graduate student work-study assistance, begin technical assistance collaboration with OIT Academic Computing Personnel, collaborate with CFT staff**

**August 2008 - complete and upload all components of the project into Blackboard SPARK Coursesite, test all aspects of process using work-study assistant.**

**September 2008 through December 2008 - implement the project with students, analyze the data obtained, submit interim report.**

**January through March 2009 - prepare and submit presentation proposal.**

**March through June 2009 - prepare manuscript on project and submit for publication consideration, submit final project report.**