



# INNOVATION ABSTRACTS

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## TELEPHONE VOICE MAIL: A SIGNIFICANT FORCE IN DISTANCE EDUCATION

A video-based distance education (DE) HE 103 medical terminology course at Chattanooga State Technical Community College requires that students know how to spell, define, and pronounce medical terms. In traditional course offerings, pronunciation was evaluated in the classroom. The method most often used for evaluation of pronunciation was to have the student prepare an audiocassette tape of the oral reading assignment. First, students received a hard copy of each oral reading assignment in the course guide. Second, a student-produced audiotape was then submitted to the DE Center, picked up by the instructor, listened to by the instructor, returned to the DE Center, and returned to the student. A graded hard copy of the returned assignment accompanied the tape and included corrections and the earned grade.

During this evaluation process, I conducted a desk audit to reveal the time required on my part for this pronunciation evaluation. The result was an average of 25 minutes for each oral reading assignment. The time required to listen to one student complete an oral reading assignment was six to seven minutes. The remainder of the time was spent in going to the DE Center, unwrapping the mailed-in tapes, completing the graded hard copy, repackaging the graded materials, and returning them to the Center. While grading assignments, I quickly realized that something had to be done. With 50 students enrolled in the video-based DE medical terminology course and five different oral reading assignments being required for each student, I calculated that the semester's grading task would require 25 minutes x 5 oral readings x 50 students or 104 hours (13 8-hour days) of grading time. Also, the act of organizing, grading, and returning shopping bags of audiotapes was labor intensive. Did technology on our campus have an answer? You bet it did.

After consulting with our telephone administrator as

to the potential use of the voice mail system (VMS), I learned that our system was capable of providing a mailbox with seven to eight minutes of memory per message and that 99 messages could be stored in one mail box. Letters were sent to students giving them instructions on how to use the VMS. Students were given the option of reading directly into voice mail (VM) or of playing a taped recording into VM. Would my goal to save time and logistical energy be realized?

Yes! Use of VM eliminated all of these logistical headaches and required only the amount of time for access, listening, and application of grading remarks. Thus, what had taken me 25 minutes had now been reduced to six to eight minutes per oral reading assignment. In addition, students, age 19 to 57, were mastering telephone technology required in the workplace.

Through the use of the VM method of evaluation, I learned that students are intimidated by the pronunciation of medical terms as well as a VMS. To ease this transition, I had them call in to my office extension and tell me how they planned to submit assignments. This also provided me with current telephone numbers and a voice identification system. Once they called in, I called them back and either spoke directly with them or left a voice mail message of success and encouragement.

About half of the students chose to read directly into VM while the others used tape-recorded readings to deliver the assignment. I found it interesting that messages were phoned in at 4 a.m., 12 midnight, during the day, and mostly on weekends. A calendar with assignment due dates and two-day grace periods was included in the course guide. Students who lived outside the college's area code were able to avoid long-distance charges by calling in to the DE Center's 1-800 number and having the call transferred to the correct assignment message extension. Use of the 1-800 number also became a means for them to call the instructor's office extension.

A nice part of this procedure was that I was able to grade assignments at my home at any time, if necessary. While working at home, I audited my time and noted that I was able to grade 20 assignments within 2 to 2.5 hours. Use of a speaker phone made it easier on the ear.



I also observed that students who opted for submission of taped assignments gained confidence after the second or third reading assignment. At this time they would submit the reading assignment by reading directly into VM. I was able to report to my department head that not only were we teaching medical terminology, but we were also teaching confidence in the application of vital workplace skills.

To successfully accomplish the oral assignments, students had to use phonetic pronunciation guides in the textbook, a dictionary, or the pronunciation of terms by the instructor in the videotapes to ascertain correct pronunciation. Many would telephone me during the semester when they were not phonetic readers. Although I enjoyed the numerous phone visits, I returned to the telephone administrator who then helped me establish a call-processing system. With this technology, I was able to provide a listen-only message for each oral reading. Students could call in at any time and hear me pronounce the medical terms. Several students called in and expressed appreciation. The only problem was that one student did not have touch-tone service at home but was able to have it quickly installed by her phone service. In addition, the DE Center provided a campus-based phone for student use.

Using the call processing system, I was able to prepare multiple oral evaluation assignments. In these evaluations, I pronounced 20 terms. Each term was pronounced once incorrectly and once correctly. The student was provided with an answer form with a, b answers to circle and a blank in which to write the correct spelling of the term. Since the edition of the textbook had changed, I was able to incorporate new terms that appeared in the new edition of the textbook. Correct spelling was a portion of the grade, and textbook use was allowed. Students were given the assignment date and a 24-hour time period in which the terms would remain in the mailbox. Completed answer forms were submitted by personal delivery or FAX to the DEC within the 24-hour period. The reason I chose to use a 24-hour time frame was to discourage collaboration as to correct pronunciation of medical terms. Alas, since policy demands that grades cannot be spoken over the telephone, students had to receive grades on a graded hard copy.

I have been able to evaluate student pronunciation, provide audio pronunciation assistance, and evaluate student listening skills. The college's VMS eliminated the cassette tape logistics and has saved hours of time for me and the DE Center personnel. It has provided me with a creative, informative, and educational tool for successful instruction and evaluation. Also, VM technology has given me the opportunity to modify course

content effectively and efficiently.

My greatest challenge was to provide oral instructions with precision and clarity. I sought to deliver each message with genuine concern and a note of challenge in my voice. One student, after listening to an oral exam, said, "You sure can ask a lot while saying very few words. How do you do it?"

While discussing what I had learned with the telephone administrator, he and I agreed that instructors of foreign languages and possibly those of music or speech could certainly use this method of instruction to enhance learning in their areas of instruction. Teachers of any subject could put assignments out on voice mail for students who do not have e-mail accounts. Student services personnel could use this technology for purposes of educating and counseling students. Use of VM has brought flexibility to the instruction and evaluation of DE medical terminology students.

Use of VM is limited only by the creativity of the instructor. My next goal is to incorporate it into the teaching of a DE biology course and into traditional teaching assignments. I plan to use listen-only messages to create a weekly message center for each course I am assigned to teach, to announce changes in test dates or times, to encourage students, to give study skill tips, and to administer various oral exams. In addition, the telephone administrator and I are assessing the VM evaluation processes for incorporation of security measures similar to those possessed by an interactive voice response system.

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