

**Dissertation Title:**

Listening too slowly? The effect of rate of speech in computer-delivered training sessions for listening comprehension in English as a Foreign Language

**Researcher:**

Kara McBride  
University of Arizona  
[kmcbri8@slu.edu](mailto:kmcbri8@slu.edu)



Kara McBride

**Research Supervisor:**

Dr. Jun Liu

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**Summary:**

Because of their ease of delivery and reproduction, as well as being an attractive format for many learners, computer-delivered language lessons are common and continuing to increase in popularity. Such lessons can take the form of software found on a local computer or material located on the internet. Online courses offer to both students and institutions tremendous flexibility that is not possible with traditional course formats: students can study at times that fit their schedules, and institutions can reach students throughout the world, instead of being restricted to their immediate geographic community.

To make online language classes in any way comparable to the quality of face-to-face classes, designers face many challenges. One of the primary challenges comes from the fact that in a traditional classroom, a teacher is present and able to pick up on cues from the students that allow him or her to adjust the difficulty level of the lesson, while computer-delivered lessons typically involve one student interacting with software. Whatever individualized adjustment to the learner's level that there may be, then, has to be anticipated and programmed into the lesson. While tremendous gains are being made in this area of adaptive programming (intelligent computer-assisted language learning, or ICALL), it is also important—and, at present, more practical—to find ways to use currently available technology to its maximum benefit.

The study described here was designed to investigate the following basic question: What is the best speed at which to deliver listening materials to beginning and intermediate English as a foreign language (EFL) learners? Rate of speech can be controlled with or without technology (by manipulating a recording, or by simply asking the actors to speak at different rates), and so creating recordings at different speeds is very easily done. Allowing listeners to pause the playback of a recording is also a simple matter in designing computer-delivered lessons. Given that a computer-delivered lesson typically does not involve the presence of a teacher who can be sensitive to the needs of the student and his or her fluctuating levels of comprehension, and because technology is not yet available to emulate such adjustments, this study sought to investigate what the most beneficial form of presentation of online listening comprehension materials would be for adult EFL learners.

The study was designed to explore four alternatives: A) giving EFL learners listening comprehension lessons at a fast speed, B) giving the learners the materials at a slow speed, C) allowing the learners themselves to choose the speed, and D) allowing the

learners to pause the playback as they listened to it. In order to be able to compare the progress among the four groups of EFL learners, a two-part pretest and posttest was given to all participants. Between the tests were ten listening comprehension lessons, and participants experienced only one of the four types of lessons, depending on the experimental group to which they had randomly been assigned. All testing and work with the lessons was done entirely online and took between 3.5 and 5 hours of the participant's time, divisible in 13 distinct steps.

The participants were 141 Chilean college students attending one of six universities in Chile. Participants were recruited from English classes at their universities. Fewer than ten of the subjects were English majors, and most participants' English proficiency level ranged from beginner to low-intermediate. Recruitment was done in person, but all other stages of participation in the experiment were done online, at the participants' convenience. The only exception to this was that 25 participants were interviewed about their experiences after they finished the online component. Besides the tests and lessons, the subjects were given an initial background survey and could also answer opinion surveys at the end of each lesson. The pretests and posttests had two parts: a listening comprehension part, in which they listened to two slow and two fast dialogues<sup>1</sup> and answered comprehension questions, and a written test that required a mixture of sentence comprehension and sentence construction skills.

What was found was that the participants in Group B (listening only to slow dialogues during training) fared the best, both on the listening comprehension test and on the written test, while participants in Group A (only fast dialogues during training) did the worst, showing no improvement on the written test and actually scoring worse on the listening comprehension posttest. By looking at evidence from the study's multiple sources of data, including surveys and interviews, it appears that the participants in Group A were often distracted by a sense of anxiety about the level of difficulty of the lessons, and they developed listening strategies that allowed them to gloss meaning by capitalizing on non-linguistic cues such as pictures, intonation, and common sense, often without digesting deeper grammatical and word-related cues. In contrast, the participants who had been trained on slow dialogues appear to have been able not only to follow dialogues more easily but to have had the ability also to pay attention to and reflect more on the language samples that they were being exposed to, leading to further gains in language acquisition, not only in listening but also in reading and sentence construction.

The findings from the other two groups were less clear-cut in terms of the question of optimal speed but instead gave fascinating insight into the importance of learner attitudes and expectations, supporting two major conclusions: 1) when learner expectations do not match conditions in a testing environment, this can negatively affect the learner's performance (this from Group C, where they could choose the speed), and 2) learners who feel that they have some control over their environment—even if they do not make use of that potential control—have a more positive attitude about their learning experiences and their own ability to adapt and learn (from Group D, with the pausing option).

The researcher draws the following implications from the study: 1) slower delivery speeds can encourage attention and noticing in beginning and lower-intermediate EFL

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<sup>1</sup> "Slow" was consistently defined as 135 words per minute throughout the study, and "fast" was defined as 180 words per minute. The speeds were arrived at mostly by requiring the actors to speak at different speeds, although the recordings were manipulated somewhat in the final stages to make the rates exactly equal.

students, which in turn encourage second language acquisition; 2) tests assess classroom learners' gains more accurately when they are similar to activities done in the classroom; 3) it is beneficial to give learners even simple options for controlling their learning environment; and 4) adult foreign language learners can benefit from some understanding of the purpose behind instructional design, and training them on the options available to them may lead to them reaping greater benefits from using computer-delivered language lessons.

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