

Effect of an Online Learning Module for Transcription and Phonological Awareness

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BACKGROUND

Speech-language pathologists must be able to transcribe English speech sounds using the International Phonetic Alphabet and must have explicit awareness of the sound structure of English. Graduate students in speech-language pathology at Vanderbilt arrive on campus with diverse background knowledge and varied prior experience practicing these critical skills. The diversity of student experience leads to difficulty meeting individual students' needs in a traditional instructional format.

We created an online learning module that directly targets phonetic transcription skills and indirectly targets phonological awareness. The module includes instructional videos, interactive learning objects, and formative assessments. Students completed the module during summer 2015 so that they would arrive on campus with an adequate base level of phonetic transcription skill.

RESEARCH QUESTIONS

1. Was there a significant effect of time for transcription of single sounds?
2. Was there a significant effect of time for transcription of trained words?
3. Was there a significant effect of time for transcription of novel words?
4. Was there a significant effect of time for phonological awareness?

METHOD

Participants

Participants were students entering Vanderbilt's Master's in Speech-Language Pathology program (n = 19). Sixty-three percent of the participants reported having had undergraduate training in phonetic transcription.

Measures

We assessed phonetic transcription skills and phonological awareness using an experimental assessment. The assessment included single sound transcription, transcription of words included in the training, novel word transcription, and phonological awareness. Assessment items were administered in a different random order at each time point.

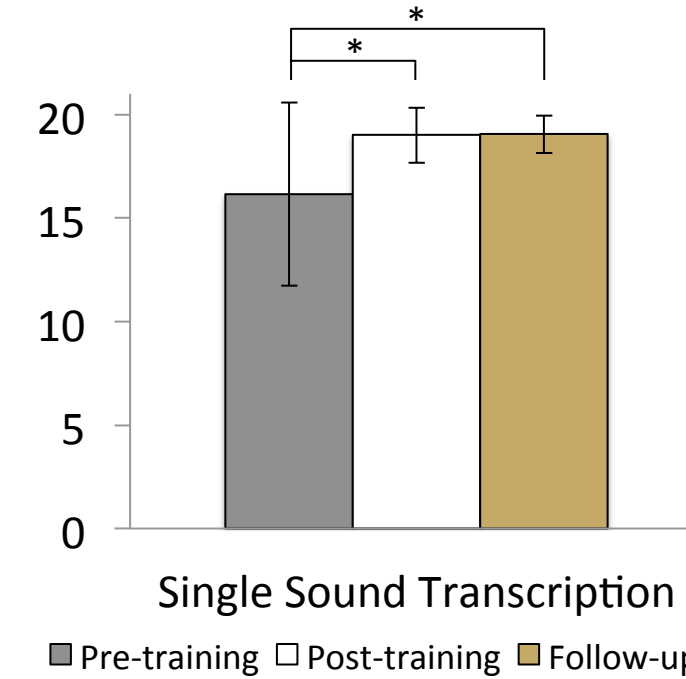
Procedures

Participants completed the assessment at three time points.



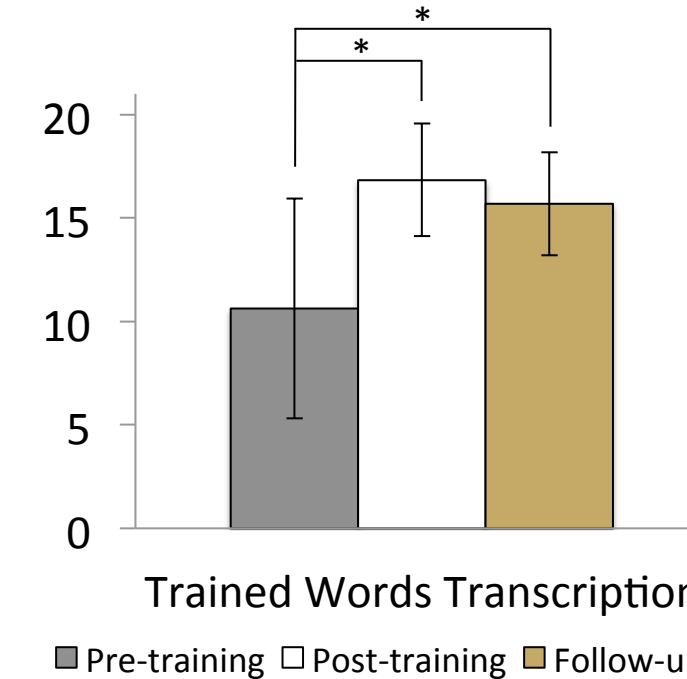
RESULTS

A series of repeated measures ANOVAs utilizing a Bonferroni correction for multiple comparisons ($\alpha = .006$) showed a significant effect of time for phonetic transcription skills.



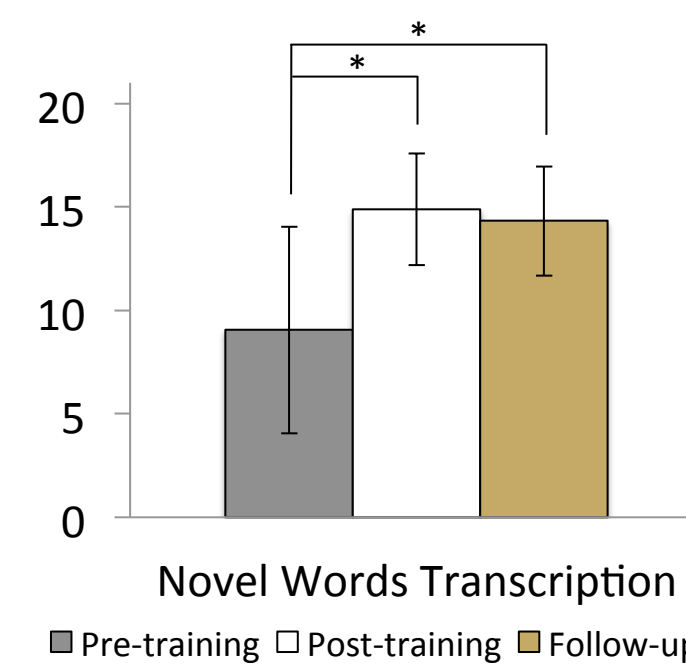
1. Was there an effect of time for transcription of single sounds?
Yes.

Performance on single sound transcription increased from pre-training to post-training ($t(36) = 3.22, p = .003$) and from pre-training to follow-up ($t(36) = 3.28, p = .002$).



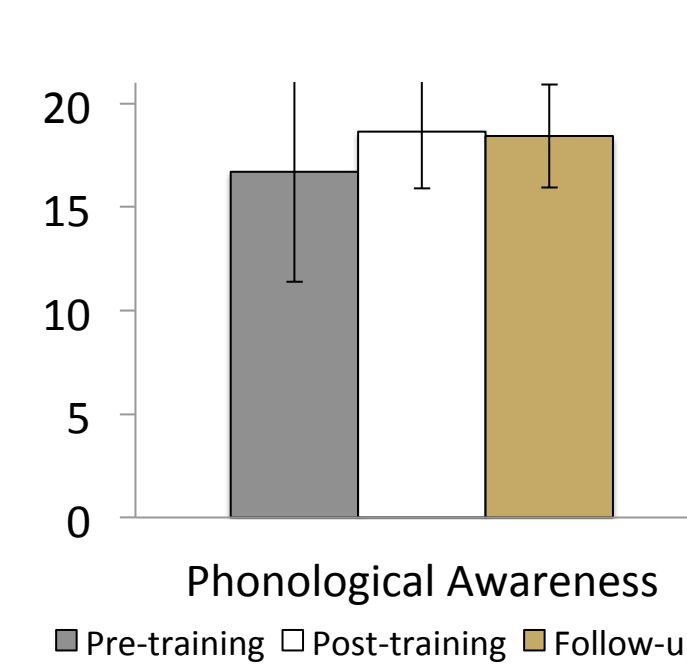
2. Was there an effect of time for transcription of trained words?
Yes.

Performance on trained word transcription increased from pre-training to post-training ($t(36) = 5.12, p < .001$) and from pre-training to follow-up ($t(36) = 4.16, p < .001$).



3. Was there an effect of time for transcription of novel words?
Yes.

Performance on novel word transcription increased from pre-training to post-training ($t(36) = 4.98, p < .001$) and from pre-training to follow-up ($t(36) = 5.12, p < .001$).



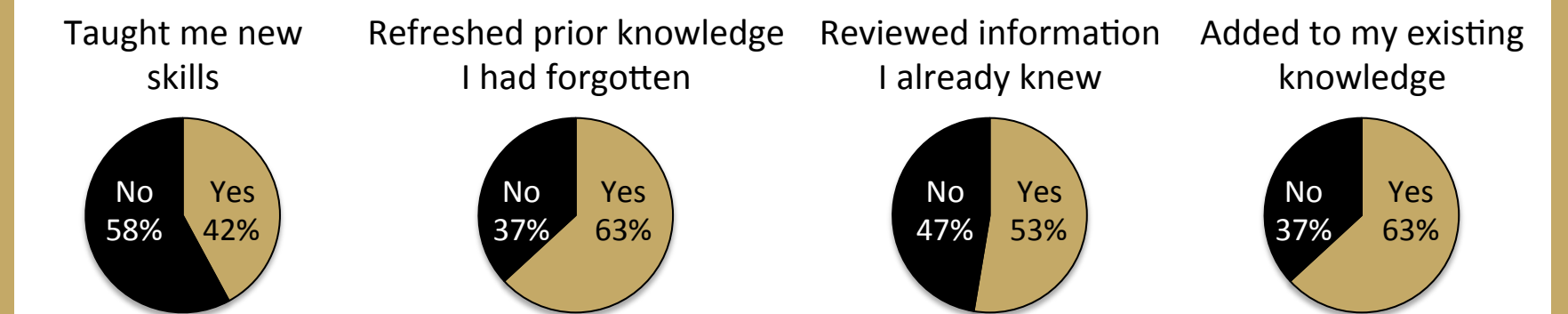
4. Was there an effect of time for phonological awareness?
No.

Performance on phonological awareness did not increase significantly from pre-training to post-training ($t(36) = 2.52, p = .016$) or from pre-training to follow-up ($t(36) = 2.52, p = .031$).

RESULTS

Students completed a survey about their impressions after the module.

The training...



"I thought the module was clear, concise, and extremely beneficial." – student

DISCUSSION

The results showed a significant effect of time for transcription of single sounds, transcription of words that were used in the training module, and transcription of novel words not included in the module and unlikely to have been previously encountered by participants. The effect of time implies that completing the training module improved phonetic transcription skills.

The results showed a non-significant effect of time for phonological awareness. One possible explanation for this finding is that the indirect targeting of phonological awareness in the module was insufficient for skill development. It is possible that more explicit instruction is needed to significantly improve phonological awareness.

Student impressions of the module were generally positive, and the majority of students indicated that they learned new information or reviewed or refreshed previously learned information. Anecdotally, students who completed the module were more prepared to begin graduate coursework upon arriving on campus than students in previous years who did not complete the training.

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References available upon request: language@vanderbilt.edu

Poster available at: www.mc.vanderbilt.edu/language

Hannah Krimm and C. Melanie Schuele do not have any financial or non-financial conflicts of interest to disclose.