

A perceptual learning paradigm to support production of a non-native vowel contrast

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The current study tests production accuracy of a non-native vowel contrast following a modified perceptual learning paradigm. Previous research has found that adults can learn non-native sound categories with sensitivity to distributional properties of their input. In the current study, 34 native-English adults heard stimuli from an /o/-/œ/ continuum. Half the participants heard stimuli drawn from a bimodal distribution and half from a unimodal distribution. To support learning, we incorporated active learning with lexical support in the form of two images, feedback, and overnight consolidation. Production of this contrast was assessed through a repetition task at baseline and at the end of the experiment. Production accuracy is measured as the Euclidean distance between repetitions of /o/ and /œ/. We expect the acoustic distance between /o/ and /œ/ to increase from baseline to post-learning for both groups of participants as a result of the three supports added to the learning paradigm. These results would suggest a way to mitigate the disadvantages previously found for participants in the unimodal condition. Direct applications to accent modification therapy are discussed, including the recommendation that clinicians incorporate active engagement with the target stimuli using lexical support, accuracy feedback, and overnight consolidation.