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Title: The effect of manner of articulation and sequence complexity on articulatory movements following training.

This study evaluated the influence of phonetic complexity on speech movements in a motor learning paradigm. Specifically, manner of articulation (stops versus fricative) and phoneme sequence (same versus different) were evaluated following training. Participants repeated nonwords with simple and complex phonetic features while their articulatory movements were tracked using the WAVE Speech Research System. Kinematic data was obtained for tongue tip and blade, upper and lower lips as well as jaw. Differences in nonword duration and articulatory variability were evaluated in regards to manner of articulation (stop, fricative) and phoneme sequence (same, different). The results of this study provide insight into articulatory and structural complexity as factors in motor learning as well as support specific parameters for stimuli selection for future treatment studies.