

Effects of practice type on speech motor acquisition and retention in  
healthy young and elderly adults  
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The primary aim of the present study was to examine the effects of age on speech motor skill learning, as a function of practice schedule type. Twenty young and an equal number of elderly participants were randomly assigned to one of two practice groups: random or blocked practice, during a novel nonword acquisition task. Participants completed the experimental protocol on three days in order to chart the course of speech motor learning over an extended period of practice. Behavioral accuracy and speech kinematic measures of timing and coordination were obtained in order to describe acquisition and retention of novel speech sequences by young and elderly participants. The working hypothesis is that the random practice schedule will exaggerate any age differences in speech motor skill acquisition, and further, that for a robust motor skill such as speech, extended practice will result in the converging of speech motor performance in the two age groups.