

## ***Learning to speak in a second language: Does multiple talker production training benefit production of English vowels in Arabic children?***

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High-variability phonetic training (HVPT) has been shown to be highly effective in improving second-language (L2) perception in adults and may generalize to production (e.g., Bradlow et al., 1999). In contrast, there have been suggestions that children may benefit more from low-variability phonetic training (LVPT), particularly with regard to category discrimination and production (Evans & Martin-Alvarez, 2016). This suggests adults and children may benefit differently from HVPT, and although children have been shown to improve more than adults after training (Giannakopoulou et al., 2013), HVPT appears to benefit older rather than younger children, suggesting that the ability to use HVPT might improve with age even though plasticity for speech likely declines (Shinohara & Iverson, 2013).

Recently, we trained adult Arabic learners of English in their production of English vowels using a computer-based training programme CALVin (Computer Assisted Learning for Vowels interface; omitted reference). The results were in line with previous work for consonants (e.g., Hattori, 2010) in that training appeared to be domain-specific; training perception improved perception but not production, whilst production training improved production but not perception. The current study reports on-going work adapting CALVin for use with children, in order to investigate whether Arabic children benefit from HVPT in both production and perception. Forty monolingual Arabic children aged 8-12 years were assigned randomly to a single talker (LVPT) or multi-talker (HVPT) condition. Both groups completed five training sessions, and were given a battery of perception and production tests to evaluate their improvement. Results will be discussed in the context of previous findings with the aim of better understanding second language learning across the lifespan.

### **References**

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