The Impact of Computer Assisted Pronunciation Training on Libyan Child Learners of English

Hana Ehbara
Newcastle University
H.f.o.ehbara1@newcastle.ac.uk
Jalal Tamimi
Newcastle University
Jalal.al-tamimi@newcastle.ac.uk

The study aims to measure the effect of computer-assisted pronunciation training (CAPT) on Libyan 7-year-olds with no prior instruction in English. The participants are monolingual Arabic speakers. The L1, Libyan Arabic, and target language, RP English, are not genetically related. They have different phonemic inventories which do not share phonetic characteristics. Voicing implementation of plosives varies across the two languages. Whilst English voiced plosives exhibit short VOT and voiceless plosives have an aspirated long VOT word-initially, Arabic utilises a negative VOT for voiced plosives and short VOT for their voiceless counterparts. Due to this different implementation of short VOT across the two languages, it is expected that the voiceless plosives in the target language will be confused for voiceless ones in the native language for the participants.

The two languages also diverge in their orthographic representation as well as grapheme to phoneme correspondence. Moreover, English is written/read left-to-right, whereas Arabic is right-to-left. The participants vary in their native language literacy skills (apparent from the Arabic read aloud task). Whilst having no prior formal instruction in English, it is inevitable that the participants might have had *minimal* exposure to the English alphabet/foreign input from their siblings schooling experience.

The study measures the effect of training in two different conditions (listen and speak and listen only) compared to traditional teaching. CAPT has benefits of providing native input, where test words are presented in orthographic and audio formats with pictures depicting meaning in lists ascending in grapheme-to-phoneme transparency. Following three-week' training, 58 participants partook in picture-naming, read aloud and delayed repetition tasks in a posttest and, of these, 48 took part in similar tasks for a delayed posttest 10 weeks later. Results revealed children had a better recall rate in picture naming than read aloud with the traditional group having the highest followed by listen and speak and listen only group. For CC clusters, there was elision of one consonant accompanied by lengthening of remaining consonant. The English rhotic seemed the most challenging sound of all especially for the traditional group. In cases where sounds in CAPT were not of good quality, participants relied on orthography to produce more accurate targets. Generally, the CAPT groups performed better phonetically than the traditional group. This suggests that although traditional training can be better for word learning in the early stages of acquisition, CAPT provides better pronunciation effects.