NSW Speech Pathology
Evidence Based Practice Interest Group

Critically Appraised Paper (CAP)

CLINICAL BOTTOM LINE: In children with a phonological impairment there is emerging evidence that the use of speech perception training plus speech production training leads to improvements in poorly identified and stimulable error sounds.

Clinical Question [patient/problem, intervention, (comparison), outcome]: In children with phonological impairment does the Speech Assessment and Interactive Learning System (SAILS) plus speech production training compared with speech production training alone lead to better speech production outcomes?

Citation: Wolfe, V. Presley, C. & Mesaris, J. (2003). The Importance of Sound Identification training in Phonological Intervention. *American Journal of Speech-Language Pathology* 12, 282-288.

Design/Method: Randomised using a prospective design

Participants: 9 participants (7 boys and 2 girls) aged 41-50 months with severe phonological delays. All were stimulable at the syllable level for at least 3 phonemes. All participants had age appropriate language scores, hearing within normal limits, no sensory-motor abnormalities and were from English speaking backgrounds.

Experimental & Control Group: All participants were given pre and post treatment probes (production and perception probes) for three target sounds errors that were individual for each participant. (Probes were words not used during treatment). Participants were assigned randomly to one of two groups.
Group 1: Five children received intervention target speech production only.
Group 2: Four children received a combined intervention targeting perception and production. The perception training used the SAILS program.

Comments – Strengths/weaknesses of paper
Strengths – number and frequency of sessions is reflective/reasonable for many speech pathology settings
Weaknesses – small sample size. The SAILS program was developed for speakers with a Western Candian accent. This means that it could not be replicated in Australia, with Australian-English speaking children, until an equivalent SAILS program is available. The authors provide suggestions for other references for speech perception training resources.

Results: No significant difference in production was noted with the two groups except for poorly identified error sounds which had greater improvement following mixed training. These results suggested that speech perception training using the SAILS program helps to improve the acoustic-perceptual representations of speech sounds that Western Canadian English-speaking children have difficulty perceiving (using SAILS assessment) prior to intervention. Because of dialect differences, SAILS in its current form, would not be suitable for Australian English speaking children.

DISCLAIMER—THIS CAP WAS COMPLETED by PRACTISING SLPs. YOU ARE STRONGLY ENCOURAGE TO READ THE ARTICLE FOR YOURSELF BEFORE MAKING ANY CLINICAL DECISIONS ASSOCIATED WITH THE CLINICAL QUESTION.
ALSO—PLEASE NOTE THE DATE WHEN THIS CAP WAS COMPLETED, and the YEAR OF PUBLICATION OF THE ARTICLE. THE CLINICAL BOTTOMLINE MAY HAVE CHANGED IN LIGHT OF MORE RECENT RESEARCH.

Level of Evidence (NH&MRC): III (III)

Appraised By:
Clinical Group: Paediatric Speech group

Date: May 2011