

## **SESSION 2: SPEECH PERCEPTION & SOUND LOCALISATION**

### **PITCH PERCEPT IN CHILDREN WITH WORD READING DIFFICULTY**

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Pitch, the perceptual interpretation of the frequency of a sound, has been shown in literature to have links with language learning and acquisition of reading (Bailey and Snowling, 2002). How well the percept of pitch guides perception of the sound signals in children with reading difficulty is not yet completely understood. The current research identifies the differences between perception of pitch between typically developing children and children with word reading difficulty. 28 children were tested in the control and the word reading deficit groups. The percept of the pitch was measured using EEG with Iterated Rippled Noise (IRN) as the stimulus. The strength of the pitch in the stimulus was varied by increasing and decreasing the number of iterations of the IRN. The Acoustic Change Complex measured as the change in the stimulus was compared between the groups. Results revealed that children with word reading difficulties are comparatively worse at appreciating the pitch encoded in a signal. The findings suggest that children with word reading difficulty may be facing difficulty in reading not solely due to poor phonological processing, language processing or auditory percept concerns, but instead may have a subliminal deficit at the level of pitch percept itself. The study was conducted after receiving approval from the Macquarie University Human Research Ethics committee.