Audiovisual Segregation in Typically Developing Children

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Learning in typical classrooms with high background noise is often difficult for children, where they may have to lipread the teacher to understand what is being said. In this scenario, it is assumed that a child should possess the ability to separate congruent information from incongruent information in an audiovisual signal. This study was aimed at investigating how well typically developing children can segregate visual information in the presence of auditory distracters, compared to young adults. 12 typically developing primary school children and 11 young adults with normal hearing and vision lipread 120 consonant-vowel-consonant-vowel (CVCV) nonsense syllable words presented in four conditions: (1) visual-only condition, (2) visual stimuli with a multi-talker babble, (3) visual stimuli with reversed speech sounds of the nonsense syllable words, (4) visual stimuli with non-altered speech sounds of the nonsense syllable words. Mean scores of children in all four conditions were lower than that of the adults, and also a significant difference for all the conditions between the two groups was noted. Results suggest that normal-like audiovisual segregation is difficult for young children because of maturation effects. The study findings can be used to encourage further research in audiovisual segregation. Also, if used constructively, these findings will be helpful in highlighting the importance of creating learner-friendly environments with minimal auditory distractions for children

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