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Is There an Association between Short Term Memory, or Working Memory, and Language (Speech) Acquisition in Children with Hearing Impairment?

Boška Munivrana

Working memory «... plays an important role in supporting of whole number of activities including conclusion, language comprehension, longlasting learning and mental arithmetic» (Baddeley & Gathercole, 1993.). Working memory is included in several aspects of language processing such as acquisition of vocabulary, speech production, development of reading and reading skills.

If the abilities of fonological memory were impaired in early infancy that fact could affect subsequent language acquisition of children, and could cause special language impairment. In early infancy, children with hearing impairment or with cochlear implant were deprived of perception acoustic stimuli at least for two or three years.

In this study, the capacity of working memory and degree of speech development were compared in hearing impaired children with hearing aid and children with cochlear implant. The capacity of working memory was tested by WISC forward and backward digital span and the nonword repetition task ; than by games with visuo-spacial memory tasks. Hearing impaired children with hearing aids or with cochlear implant were the examinees. All of them have been learning the speech by VT (verbotonal) method (via listening). Most of the children were included in hearing rehabilitation program from the age of three.

Key words: working memory, hearing impaired children, hearing aids, cochlear implant

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