

Comparison of Phoneme Discrimination Skills in Minimal Pairs Between Children with Hearing-Impairment and Children with Phonological Disorders

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PURPOSE: The purpose of the current study is to compare hearing-impaired children with cochlear implant (CI) and children with phonological disorders (PD) in terms of the phonemic discrimination ability in minimal pairs. Thus, the study aims to show that whether a test using minimal pairs will be useful in evaluating the development of speech perception of CI users as well as children with PD.

METHODOLOGY: 9 CI users who have congenital hearing loss and who have had a fitting with a CI within 4 years following birth (89 ± 21 months), 10 children with PD (76 ± 16 months) and 10 children with typical hearing-language development (TD) (81 ± 16 months) were included in the study. All participants underwent the Auditory Discrimination test, a sub-test of the Turkish Articulation and Phonology Test.

STATISTICAL ANALYSIS: For comparison between the groups regarding performance, Kruskal Wallis test, Mann-Whitney U test and Bonferroni correction were used.

RESULTS: Multiple comparisons revealed that there is significant difference between the groups with the disorders and children with TD. However, there was no significant difference between CI users and children with PD.

CONCLUSIONS: Since ability to discriminate phonemes is critical for the acquisition of speech sounds, Auditory Discrimination sub-test may be useful in evaluating the development of speech perception of both groups.

Keywords: phonological disorders, cochlear implant, phonemic discrimination