

Does the Digital Roger System increase speech recognition in noise for severe to profoundly deaf children, compared to the Genie FM system, in a classroom environment?

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Abstract

Using the Manchester Junior Word Lists and the Parrot Plus; thirteen participants, seven hearing aid wearers and six implant wearers, aged five to twelve years were tested using the Genie FM system and the Phonak Roger system. Testing was completed at -10dB SNR and +20dB SNR, and the speech signal was provided at 65dB.

Results showed no overall significance between the two systems at either signal to noise ratio. However further investigations into the results showed that there was a significant difference for the hearing aid wearers at -10dB SNR, with the Phonak roger system proving the better of the two systems.

It was notable however that there were flaws with test set up and the size of the study was small. The group was also varied in amplification type and that this may have had an impact on results. In addition the -10dB SNR test condition appeared to reach a ceiling effect and further testing would be needed to verify this.

The study did highlight the need for verification of any changes to amplification type and that a new-is-better approach is not necessarily the best for all.