

Interactive fitting using audiovisual simulations of real word

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We studied the added value of an advanced system for interactive fitting of hearing aids (Amplifit II). This system inventories the subject's difficulties in auditory communication using an individually-tailored selection of video fragments, simulations of real world. The subject judges speech intelligibility, listening comfort, and sound quality. After hearing aid fitting, the same conditions can be judged in the aided condition and the subjective benefits of using hearing aid(s) can be assessed.

A well-structured feedback of the responses is given in 7 dimensions, which can be used to choose between different hearing aids and/or between different settings in the same hearing aid.

In this study the hearing aid dispenser used the Amplifit II system to fit and fine tune the hearing aids. This is primarily a comfort driven approach to the fitting of hearing aids. This fitting was compared to a second fitting made at Audiological Centers, and based on Insertion Gain measurements matching the NAL-NL1 prescription rule. The subjects were asked to use one fitting for six weeks followed by the other fitting for another six weeks in a cross-over design. The order of fittings was randomized.

After each trial-period the settings were evaluated objectively by insertion gain measures. The performance was evaluated by speech tests in quiet, continuous noise, and time reversed speech, both presented at 0 degrees and with spaciouly separated sound sources. The subjective results were evaluated using extensive questionnaires (SSQ and AVETA).

In the complete design 100 subjects will be included. In the presentation the preliminary results based on the first half of the subjects will be shown and discussed.