

Exploring Monaural Auditory Displays that Convey Positional Information to Users

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Abstract

The purpose of this study is to confirm whether monaural auditory displays that indicate leftward and rightward directions to users can be used together with speech sounds in order to convey positional information to users. We conducted two experiments; experiment 1 was for investigating how a speech sound followed by auditory displays can convey three positions, right, center, and left, to participants, and experiment 2 was for exploring the effects of the durations of these auditory displays on how users interpreted these pieces of positional information. As a result of experiment 1, a speech sound followed by monaural auditory displays with durations of 0.25, 0.50, and 0.75 sec succeeded in conveying the three pieces of positional information to users. As a result of experiment 2, the speech sound followed by monaural auditory displays with durations of 0.25, 0.50, 0.75 or 1.00 sec was interpreted by users correctly.