

THE IMPACT OF SMART SPEAKERS AS INTELLIGENT VIRTUAL ASSISTANCE ON FUNCTIONALLY BLIND INDIVIDUALS

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This study investigated the impact of smart speakers as intelligent virtual assistants on individuals with visual impairments.

29 individuals participated in this study. The participants were 18 years of age and older, and were functionally blind.

The study consisted of two phases, one during which participants completed a list of pre-assigned tasks at the comfort of their own home using their preferred traditional devices. For the purpose of this study, the term 'traditional devices' referred to computers, tablets or smart phones using screen readers. During the other phase, participants completed the same list of pre-assigned tasks using a mini Smart Room setup (Google Home mini, a lamp connected to a smart plug and a television connected to a Google ChromeCast video).

Participants responded to three questionnaires. Two of which were Likert-type scale level of ease questionnaires, one of which was in relation to their experience when completing the tasks with their traditional devices; whereas the other was in relation to their experience when using the smart room setup. The third questionnaire was about their preference of means being either traditional devices or smart room setup.

It was hypothesized that (H1) functionally blind individuals complete tasks faster when using smart speakers, that (H2) functionally blind individuals score higher on an ease-of-use questionnaire, when using smart speakers, and that (H3) functionally blind individuals prefer smart speakers.