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Smartphone Accessibility Training Protocol

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Background

Despite an increase in smartphone device ownership, smartphones continue to be underutilized by individuals with disabilities because of barriers such as the inability to complete complex gestures, inexperience using accessibility settings, lack of training and support, and more. Data from a survey created by the Global Accessibility Reporting Initiative (GARI), received from over 12,500 participants, identified a desire for more information on locating, activating, and using accessibility settings on devices.

Objective

Create a person-centered educational training program that teaches individuals with disabilities how to use the accessibility settings on their smartphone devices effectively and efficiently.


Research Question

How does providing education and training on implementing and utilizing smartphone accessibility features impact the device use satisfaction and efficiency for individuals with disabilities?


Inclusion criteria:

- Individuals with a physical and/or cognitive disability
- Reside within 50 miles of Providence
- Experience using a smartphone
- Participated in MoDAT Usability testing


Training Protocol Using the Kirkpatrick Model




Level 1: Reaction
Pre-training survey
Post session survey



Level 2: Learning
Knowledge quiz
Instruction/demonstration



Level 3: Behavior
Observation
Correction



Level 4: Results
Post-training survey
Follow-up interview

Accessible technology positively affects an individual's educational and professional advances, social life, and independence.

MoDAT
Mobile device assessment tool (MoDAT) that can evaluate a person's capacity for effective and efficient use of a mobile device.




Case Study

- 45 year old male
- Acquired ataxia
 - Low vision and hard of hearing
 - Utilizes reading mode and text-to-speech on iPhone
 - Training: Three new accessibility settings

Conclusions and Implications for Future Research

- Device use and accessibility settings training may lead to higher adoption and utilization rates.
- Person-centered training may lead to improved efficiency and device use satisfaction.
- Formal instruction is typically minimal. Appropriate training should be available for individuals with disabilities and their caregivers.
- Occupational therapy practitioners have a unique perspective and skill set that will be useful for device use and accessibility settings training.





References