

Learning Assistive Technology: Preferences, Methods, and the Need for Improved Training

What Were We Trying to Learn?

The purpose of this study was to investigate how employed individuals who are blind or have low vision (B/LV) prefer to learn new assistive technology (AT) and how they actually learn to use it. It examined how these methods vary by age and age of vision loss onset, the percentage of individuals receiving formal AT training, and the link between learning methods and perceived skill levels.

How Was This Project Carried Out?

We used data from 314 employed B/LV individuals. Participants completed online or phone surveys to answer questions about their AT use at work, preferred learning methods, and actual learning methods. They also rated their skill levels for specific ATs. For this study, we included ten ATs commonly used at work. Three of these devices were used by participants who were legally blind with some functional vision or low vision (third-party screen magnifiers, built-in screen magnifiers, and electronic video magnifiers), and seven were used by participants who were blind or legally blind with minimal functional vision (third-party screen readers, built-in screen readers, optical character recognition (OCR) apps, refreshable braille displays, OCR software and hardware, orientation and navigation apps, and braille notetaking devices). Descriptive statistics, chi-square analyses, and ANOVAs were used to analyze the results.

What Are the Most Important Things We Learned?

- We learned that while hands-on training was the most preferred method for learning new AT, most participants relied on self-teaching to learn how to use their workplace AT, especially for newer technologies like mobile apps.
- Preferences for learning methods varied with the age of vision loss onset, with those experiencing vision loss later in life more likely to favor hands-on training.
- A large percentage of participants did not receive formal training for some of the ATs they use at work, suggesting a gap between the desire for training and its availability.
- Participants who considered the formal training they received from an agency as their primary way to learn three AT (screen reader software, OCR software, and OCR apps) reported lower self-perceived skill levels compared to those who self-taught or used tutorials. This suggests initial training serves as a starting point, with ongoing learning needed to improve skills.

Research Takeaway

Hands-on training is the preferred method for learning new AT among individuals who are B/LV, particularly among those who lose vision later in life. However, the majority rely on self-teaching for learning how to use their AT, especially for apps. This may be due to the limited availability of formal training.

How Do These Findings Relate to Me?

If you are a person who is B/LV who is new to vision loss or who needs to learn a new AT, be aware that self-teaching beyond any initial formal training received will likely be necessary to obtain proficiency with the AT. If you are a blindness professional who provides AT training, these findings provide evidence that more hands-on AT training is desired by people with B/LV, particularly those who lose vision later in life. Given the limited amount of time AT trainers may have with students, methods for troubleshooting compatibility and accessibility issues, seeking support services, as well as locating and utilizing available resources, should be key parts of the training process.

Learn More

Findings were taken from the following article:

McDonnall, M. C., Steverson, A., & Boydston, J. (2024). [Actual and preferred methods for learning to use assistive technology](#). *Assistive Technology Outcomes and Benefits*, 18, 20-35.

For more information about this project, visit the [project overview page](#).

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