There's More to Touch than Meets the Eye: Optimizing Touch Access for AAC Users

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Short Abstract

For many augmentative and alternative communication (AAC) users, conventional access methods are challenging, leading to exploration of alternative access strategies. This typically includes use of switches, alternative mice or eyegaze technology. There are a range of accommodations that can be made to touch access aimed at increasing the effectiveness and accuracy of this access method for the user. These accommodations can be overlooked, but they can play an important role for some users in enabling direct touch access to their communication system.

This presentation will focus on four key factors that are critical for optimizing touch access to AAC devices: positioning, body part used, touch type, and touch settings/peripherals. Attendees will gain practical insights into how to assess and adjust these factors to suit the unique needs of each user. The range of touch settings embedded into most AAC software will be outlined. The role of peripherals, such as keyguards and styluses, will also be discussed.

While touch access set-up is crucial, touch access itself is a skill that requires development through practice. This presentation will briefly introduce strategies and activity ideas to help users practice and enhance their touch access abilities, ensuring they can fully engage with their AAC systems over time.

Attendees will leave with a deeper understanding of the customizable nature of touch access, as well as practical strategies for helping AAC users develop these skills.

Long Abstract

For many augmentative and alternative communication (AAC) users, conventional access methods are challenging, leading to exploration of alternative access strategies. Access methods for AAC are divided into two categories: direct selection and indirect selection (Beukelman & Mirenda, 2013). Direct selection refers to an access method where the AAC user selects a desired item or option by directly interacting with the device. Indirect selection requires the user to activate a scanning system or use switches, where options are highlighted in sequence and the user makes a selection by signalling when the desired choice appears. Direct access is often the most efficient form of access and generally provides more intuitive and faster communication since the user does not rely on intermediary steps to make a choice. Direct access can be achieved through touch, use of a mouse, or through eyegaze interaction. Indirect selection tends to be slower and requires additional cognitive and motor demands, as the user must wait for the scanning system to present the desired option.

The goal of an alternative access assessment is to identify the most reliable, functional, non-fatiguing motor movement for communication (Russell & Buxton, 2014). Tools such as the *Tobii Dynavox Access Screening Tool* have been developed to support clinicians in exploring alternative access methods. This tool encourages clinicians to systematically evaluate access options, starting with touch access. This is due to the fact that touch access is an incredibly efficient way of interacting with AAC software. There are a range of accommodations that can be made to touch access aimed at increasing the effectiveness and accuracy of this access method for the user. These accommodations may not be well known and can be overlooked, but they can play an important role for some users in enabling direct touch access to their communication system for some, or all of the time.

This session will outline four critical factors in touch access setup:

1. **Positioning**: Proper positioning of both the individual and the AAC device is essential for successful access. The user should be positioned to minimize fatigue and optimize stability, while the device must be placed within the user's comfortable reach and visual field.

2. **Body Part**: Identifying the most reliable body part for touch access, such as a finger, knuckle, or head, is key. Assessment tools can help evaluate which body parts the user can control with precision and consistency.

3. **Touch Type**: AAC software often includes settings that adjust when a touch triggers a selection, such as touch-enter (activation upon touching the screen) and touch-exit (activation upon releasing the screen). Tailoring these settings to match the user's motor abilities can significantly improve access.

4. **Touch Settings and Peripherals**:

o *Settings*: Software adjustments such as hold time, multiple tap connections, delay between selections, and visual/audio feedback can be customized to accommodate the user's response speed and accuracy.

o *Peripherals*: Tools like hand pointers, splints, and keyguards can enhance precision and reduce unintentional selections, allowing for more accurate touch access.

To ensure effective AAC use, touch access must be viewed not only as a technical adjustment but as a skill to be developed. All access methods require motor learning, and there is a progression of skills needed in order to learn to use the access method for functional activities (Indigo, 2016). This session will provide suggestions for activities and software that will allow the user to practice and develop touch access skills.

Overall, attendees will leave with a deeper understanding of how to optimize touch access through thoughtful adjustments in positioning, body part selection, touch settings, and peripherals, as well as tools to teach and practice touch access for AAC users.

Reference:

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