



Switch Access

Articles at a Glance · Scanning

Burkhart, Linda (2018). Stepping Stones to Switch Access. *Perspectives of the ASHA Special Interests Groups*, 3(1), 33-43.

What question did the researchers try to answer?

What is the best way to systematically teach switch access to individuals with complex communication needs and physical and sensory disabilities?

How did they do it?

The author collected research on multiple factors that influence the learning process, including:

- Motor-cognitive learning
- Active participation, motivation, and feedback
- Parallel learning
- Switch types and placement

The author developed a fluid guide of eight steps to help clinicians, teachers, and parents move individuals along a continuum of cognitive-motor learning for switch access.

What were the results?

Motor learning is a problem-solving process. To create new motor patterns, individuals need thousands of opportunities to practice new skills. It is crucial to incorporate incentives and successful experiences into the scanning learning process.

Ideally, an individual should continue to use alternative nonelectronic communication tools while learning to scan. Switch choice and placement are highly individualized, and you must consider all of the individual's needs and positioning requirements.

Once the switches are in position, the author recommends teaching scanning in the following order:

1. Single switch, cause and effect.
2. Single switch, multiple locations and multiple functions.
3. Two switches, two functions.
4. Learning to step scan with two switches.
5. Two-switch step scanning with failure-free learning and feedback.
6. Two-switch step scanning to a target, with activities for increasing accuracy and cognitive engagement.
7. Practicing for increasing accuracy with two-switch step scanning.
8. Switch automaticity-reducing time for success and demonstrating knowledge.

How can we apply this to Tobii Dynavox communication solutions?

Learning to scan with switches is a highly complex, highly individualized process. Therefore, a team of professionals must work together with the individual to optimize his or her learning journey. Factors like motor-cognitive learning, motivation, and switch placement must undergo continual review by the team.

While there can be an ordered path to teaching scanning, you must also take the individual and their needs into account. Carefully select and design activities to create a sense of success at each stage. Continue to use nonelectronic communication systems, as these create a delicate balance between learning new and challenging skills and using more familiar skills. Be sure to provide a robust model of pragmatic language and communication.

The Core First Scanning Page Set provides Learn to Scan pages in the Dashboard area. They are meant to be a starting place for teaching scanning on an electronic device and should be edited to make them more motivating to the individual.

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