

Switch Scanning: What is it?

What can it be used for? One or two switch scanning?

What is switch scanning?

If a student is unable to physically select an option or choice on a screen, switch scanning can be used to move through the options and to select the option they want. Switch scanning is a setting available in certain software that enables a scan box to move across a series of on-screen items (it will highlight and/or provide an auditory prompt for each item). The student can then activate a switch to select the desired item.



What can switch scanning be used for?

Switch scanning can be used for tasks that require making a selection from a number of items on a device. This may include using an AAC (augmentative and alternative communication) device, navigating a computer or touchscreen or using an environmental control unit.

What is single switch automatic scanning?

Only one switch is used for automatic scanning. The device automatically controls the scanner and gives the student time to activate a switch to select the desired item. The scanning time can be adjusted.

BENEFITS	CHALLENGES
Only requires one switch site (one reliable and repeatable movement)	Increased cognitive demands to maintain attention and process options within a time limit, e.g. student could miss their desired choice if they get distracted.
May cause less fatigue due to requiring less switch hits	Increased demand on timing of movements

What is two switch scanning?

Two switches are used to control the scanning. The student has one switch which is the 'mover' and one switch which is the 'chooser'. The 'mover' switch is used to move through the options. The 'chooser' switch is then activated when they reach the desired option to select it.

BENEFITS	CHALLENGES
Student has total control of scanning process. May be easier to learn how to scan initially.	Requires two switch sites (two different reliable and repeatable movements)
Reduced cognitive demands of scanning (can consider options in their own time)	May cause fatigue due to increased movement and number of switch hits required

How can we make switch scanning more efficient?

When using switch scanning it could take a long time to find what you're after if you have to scan through all the options one by one.

Groups, rows or columns of items can be highlighted at one time to increase efficiency in finding the desired item. The group of items where the desired item is located is selected first, then each individual item in that group will be scanned and the desired item can be selected. This can be done with one or two switch scanning. Scanning in groups can reduce the time and effort (number of switch hits) required to select the desired item. This is particularly useful if using a computer, tablet or using an AAC device to communicate (we need lots of words to get our messages across).



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