

Switches - A Structured Approach

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Many teachers and therapists find using switches and switched software very complex, this session aims to provide a structured approach to using switches, to look at the equipment involved and the skills needed to use switches.

Stage 1

Select a suitable Switch

Switches come in a variety of shapes, sizes and types. Basically a switch is a device consisting of a mechanical or electrical or electronic device for making or breaking or changing the connections in a circuit. In simple terms it allows an individual to indicate a choice or selection which results in an action.

The most common switches are round flat switches that can be operated by a hand, foot or other part of the body by simply pressing.



They come in small 1.75" diameter, medium 2.5" and large 5" sizes and connect with a 3.5mm jack plug.

The **Joggle** switches are even pressure adjustable allowing the sensitivity of the switch to be changed.

If these switches are not suitable many other types are available, including the new **Access switches**, these are low cost and have a unique clear top for adding pictures to your switch.



Stage 2

Mount your switch



Most people forget about how the switch is going to be held in place, in some cases it can be held in the hand, but most of the time we will have to mount the switch.

The simplest way is Velcro, however this can be very messy and limiting from adjusting position. A simple alternative to Velcro is to



use a **Maxess** Tray and Mounts, this simple tray allows switches to be quickly fixed, but easily adjusted.

The **SensiTrack** mounting system is a system that makes it very easy to mount switches and quickly adjust them on any smooth surface.



Stage 3

Basic switch use

Before rushing into using a computer, you can use simple switch modified toys and devices. Using a battery operated toy, you can insert a Toy Switch Adaptor and quickly convert the toy into a switch operated toy. Individuals can see an instant result to pressing a switch.



Ablenet switch latch/timers can also be used to extend the switch sessions, press to turn on, press to turn off and to vary the time.

Stage 4

Computer Switch Box

Once we are happy the individual can use the switch and understands the cause and effect relationship we can start to use a computer and software with our switch, however to do this we will need a switch box.



A switch box/cable is a way of linking switches to the computer, the switch box connects to either the USB, PS2 or Serial port on your computer and provides a number of sockets into which you can plug the 3.5mm jack of the switch.

Devices such as the Mouser offer a number of features that include switch access.



Stage 5

Basis cause and effect software

Once we have the correct switch, mounted correctly for the individual and connected to the computer with a suitable switch box, we now need to select basic cause and effect software, hit a switch something happens!

A good place to start is the SEMERC Switch On series, this series consists of Switch On Original, Travel and Zoo.

This software can be set so that just pressing the switch causes something to happen, with colorful graphics and sound.

Once we have established that the student can understand the relationship between pressing the switch and something happening on the screen we are ready to introduce the next stage.



Stage 6

Repeating switch presses

Pressing a switch once can be difficult for some students, but we need to start to encourage the ability to press the switch several times.

The Switch On series allows you to set the number of presses required to build up the scene.

Stage 7**Using more than one switch**

Longer term many switch users will move onto two switches. Two switches considerably speed up the process of using switch access to software.

Stage 8**Practice timing**

Once we are happy that a student can consistently press a switch and maybe even manage two switches the final, skill we need to develop is timing. Many programs use switch access this scanning options, to successfully use the software you not only need to press the switch, but also press it at the right time.

Spot on Games is a excellent way to introduce timing in a series of fun games.

