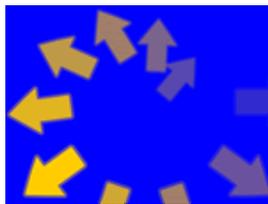


SENSWITCHER

A suite of early ICT teaching programs for students with profound and multiple learning difficulties.

Designed by teachers and written by Inclusive Technology, this suite of programs from the Northern Grid for Learning (NGfL) represents a major advance in ICT teaching resources for students with special needs. This successful suite of programs has found an application for students with severe or profound and multiple learning difficulties, those who are learning to access technology through the use of assistive input devices and very young children starting out with computers.

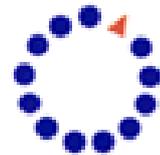


The suite comprises 132 different activities covering eight progressive stages in access skills development ranging from purely experiential visual stimulation through cause and effect, switch building, timed activation, and simple row scanning. All of the activities have user selectable colour schemes, timing options and can be operated by either a pointing device, keyboard, switch or touch screen. The program comes complete with a 20 page teachers'

manual and a series of charts and checklists to aid planning for and the recording of pupil's progress in line with the recently introduced QCA P levels for ICT, making this one of the most inclusive special needs teaching packages on the market today.

Except it isn't on the market...

SENSwitcher, the teachers' manual, the developmental skills progression model, the checklists, in fact everything you need to start using this fantastic program is available completely FREE from the Northern Grid for Learning web site. The program can be run online or downloaded for use on machines without an Internet connection. A 10 minute download and five blank disks and your on your way.



Developmental Skills Progression

The whole suite of programs were designed around a developmental model of skills progression researched over the last couple of years at Priory Woods school in Middlesbrough. Each of the activity groups target a specific area of skills acquisition within the framework of the QCA P levels for ICT enabling their use as tools for both assessment and teaching. The developmental model breaks down the various stages of skills progression into a series of small steps, aiding target setting and accurate recording.

Experiential



Early ICT teaching for students with profound learning difficulties begins by offering the student a range of visual and auditory experiences and recording any responses the student makes. The ultimate aim at this level is to reach a point where the student will respond consistently to what is happening on the screen. SENSwitcher provides a wide range of different animations in user configurable colours, which require no input from the student.

Choose from tunnelling patterns, object tracking and shape morphing all accompanied by high quality sound effects, which pan with the movement on the screen.

A good tip here is to use the program in a darkened room with headphones if the student will tolerate them as this helps to focus their attention. Experiment with different colour combinations too, even if there is no evidence of visual impairment. We had some very unexpected behavioural responses with specific colour combinations. Take some time just to observe the student and don't forget to record what you see on the record sheets looking for patterns of consistent response. By adding in or removing specific animations, you can then hone in on the animation / colour combinations that are most stimulating to the pupil. At this stage pupils may begin to explore the source of the stimulation by leaning forward or reaching out to touch the screen. This proactive exploration should be encouraged and supported by lots of praise.



Cause and Effect



Once a student begins to respond consistently to the experiential activities, its time to begin to learn control. A useful tip we found was to have a switch or touch screen (whatever the student will use for access) connected to the computer allowing the student to co-actively explore the device and the effects of its operation with their support worker.

SENSwitcher has two sets of animations, which can be used to explore the concept of cause and effect. Level one provides ten animations based on shape and pattern, that mirror themes introduced in the experiential section. While Level two introduces simple object animation such as bouncing balls, ticking clocks and flying space rockets. The aim is for the pupil to learn that they can control the animations by pressing a switch or touching a touch screen. A good tip here is for the pupil to work together with a member of staff, who can provide a range of prompts and verbal encouragement from hand over hand co-active exploration to a simple verbal "Press". It is often difficult to ascertain if a pupil has fully understood the concept of cause and effect, and care should be taken to ensure that the pupil has demonstrated a generalisation of the skill with other switch activities. The target goal is for the pupil to be able to operate the software independently.



Switch Building or Sequencing

The Switch building levels of SENSwitcher require the student to press a switch or make contact with a touch screen a set number of times before the animation sequence is triggered. With each press of the switch, a picture representing the final animation is built up on the computer screen. The final press will trigger the start of the animation.



SENSwitcher has two switch building levels requiring either three or five switch activations. In both levels, teachers can choose either patterns or objects similar to those presented in the Experiential and Cause and Effect levels, enabling progression using those animations identified as motivating for the student.

The five-press level also introduces 'scenes'. Like the pattern and object levels, these graphically more complex images are built up step-by-step and triggered with the final press. Teachers can select from a range of contrasting colour options and alter the animation length to suit the individual student. The goal here is to help the student understand the concept that they may have to perform a sequence of actions in order to achieve a result. A good tip is to encourage the student to count each press along with you, pausing to notice the changes on the computer screen thus reinforcing the concept that each separate action has made something happen.

Pop Up

If a student is to progress beyond the concrete operational cause and effect levels, they need to be able to make decisions about when to press the switch. Learning to look at and respond to what is happening on the screen. SENSwitcher's Pop Up levels provide teachers with a useful tool to teach these skills.



Teachers can choose from three Pop Up levels. In the first level, shapes and animals appear on the screen at random intervals accompanied by an associated sound cue. If the switch is pressed when the object is on screen, the animation triggers.

The next two levels extend the animal and shape theme, this time without an auditory cue. This system enables progression by building responses first to a combined visual and auditory cue through to purely visual cues. Teachers can alter the 'Pop Up' length, the time the cue is displayed on screen for each level, tailoring it to the response times of individual students and shortening it to help build pace.

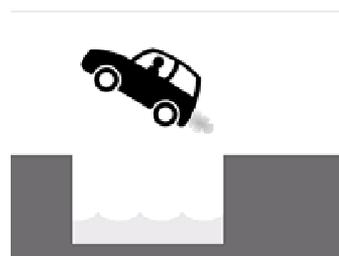
Targeting



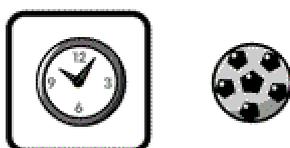
SENSwitcher's Targeting levels extend the concept of responding to on screen cues through the use of moving objects and target boxes. In the first level, objects move horizontally or vertically across the screen passing through a target box. If the student activates the switch when the object is within the target area, the animation is triggered. Switch presses outside of the target area are ignored. Teachers can use the object speed slider to tailor the activity to the student's speed of response.

This is a very useful tool if you are planning to introduce the student to scanning. By selecting only objects, which move in a horizontal plane, teachers can help students develop the skills needed to use row scanning. Activities with objects moving in the vertical plane will help with column scanning.

The second Targeting level displays simple scenes, with a single moving object. The student must work out when to activate the switch based on the information carried within the context of the scene. For example, one animation has a car moving towards a ditch, the student must press the switch or make contact with the touch screen as the car reaches the edge in order to stop it from falling into the water. If the switch is pressed at any other time, it will be ignored and the car will fall into the ditch.



Scanned Activation



SENSwitcher's final level involves making simple choices using row scanning. The first six activities allow students to choose from two different animations by pressing the switch when their chosen object is highlighted by the scan. The last two activities introduce empty cell scanning, first with one, then two empty cells with the object being placed randomly each time. Teachers can alter the scan length to slow or speed up the scan depending on the ability of the student.

These activities provide teachers with a simple way to introduce students to row scanning with switches, preparing them for the introduction of software such as the excellent ChooseIT maker from Inclusive Technology or Clicker from Cricksoft.

SENSwitcher, together with the teaching notes, is a fantastic teaching tool to use with students with profound and multiple learning difficulties. Its age neutral animations enable it to be used with all students and at all levels from experiential through to switch scanning. SENSwitcher is, in our opinion, is one of the best ICT teaching tools for our very special students on the market today, except of course it is completely free..

What are you waiting for? Download it today!!

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