

Touch Screens and the Development of Co-ordination skills

Paul Nuttall, Director of SEMERC, Granada Learning, Manchester, UK

Introduction

Although it is a natural instinct to use our hands, and Touch screens are often seen as one of the most natural ways of interacting with a computer, we often forget that many skills need to be developed to successfully master the computer.

Younger pupils and those with intellectual/physical difficulties often do not have the co-ordination skills to instantly use a touch screen and the skills required will have to be acquired over a period of time. This session looks at how software can be used to aid the acquisition of the necessary hand eye co-ordination skills.

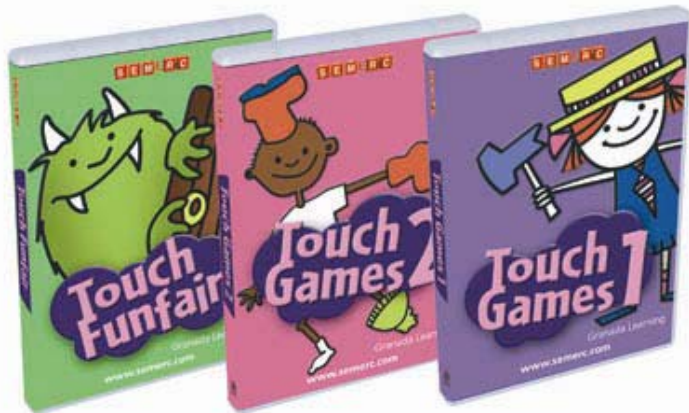
Basic level

Touch to make something happen

The first objective when introducing Touch screens is to develop the recognition of cause and effect, e.g. I touch the screen something happens.

Touch Games 1, Touch Games 2 and Touch Funfair

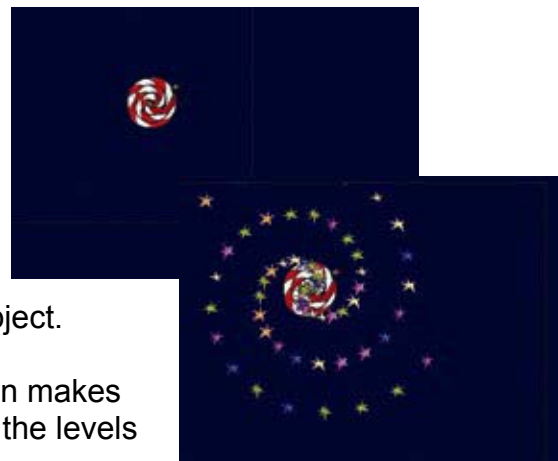
This series of programs is an ideal introduction to the development of co-ordination skills.



PinWheel (Touch Games 1)

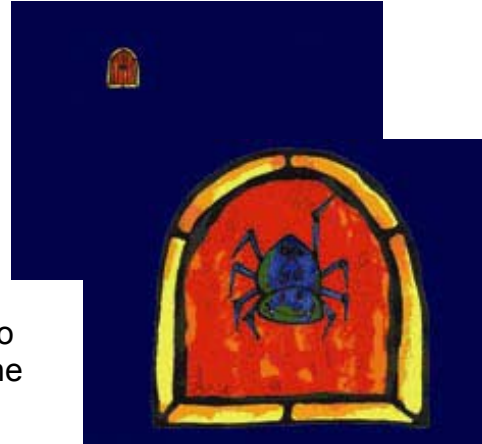
In this activity a student touches a static pinwheel on the screen, which when touched reacts sound and movement. The teacher can set three levels of action: touch anywhere, touch near or touch the object.

At the simplest level just touching the screen makes something happen, however we can adjust the levels as the students skills develop.



Other similar activities are:

Ghost Train (Touch Funfair), touch the door and something happens!



Touch fine points on the screen

Once a pupil can touch the screen we need to develop the accuracy of touching points on the screen

In the program Big Guy (Leaps and Bounds 1) when students touch the big guy he will react, depending on where he is touched. This activity is also great for language development, "Touch his hand".



Touch and Touch Again

Once a student can touch an object accurately, we need to practice touching a number of times, so that students can touch a number of objects in a session.



- Rockets (Touch Games 1)
- Annabel and Dasher (Touch Games 1)
- Buzz Off (Touch Games 2)
- Wake Up (Touch Games 2)
- Magic Painting (Touch Games 2)
- Watering the Garden (Leaps and Bounds 3)

Touching in Sequence/Matching

Most use of programs involves the repeated touching of the screen in a sequence.

- Hectic Highway (Touch Games 1)
- Sort and See (Touch Games 2)
- Lucky Dip (Touch Funfair)
- Bumper Cars (Touch Funfair)
- Sequences
- Sausage Machine (Leaps and Bounds 3)



Touching a moving Object

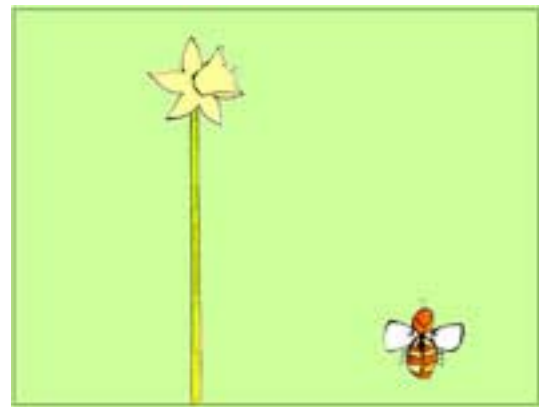
Animal parade (Leaps and Bounds 1)
Touch IT series



Dragging an object

This is one of the most difficult skills to master on a touch screen, some programs such as My Modelling Toolkit overcome the problem by the use of sticky keys, if sticky keys is enabled, you touch on object to select and then touch a second time to indicate where you wish to move an object. However dragging is a skill that needs to be worked on.

Honey Bee (Touch Games 1)
Brians Bus (Touch Games 2)
Hoopla (Touch Funfair)



Touch IT series

These discs have been developed to introduce students to the concept of touching a moving object.

Using the teacher options you can set:
Object size, hit area, pointer type, speed and direction of object.

