



Graham Smith

Summary Findings Using Ohbot With Special Needs

Below is the summary of the benefits seen during ICT lessons over a term period.

Background- A small independent school for additional needs. ICT completely reconstructed less than two years ago, to find methods to engage the children to produce interest and strive towards educational goals. Introduction of different robotics across KS1 and KS2 to support the curriculum. Noticed that with coding, pupils with additional needs respond better with the control over something in the physical world. To date, lessons where Ohbot was used, Ohbot had the best initial impact and kept the pupils engaged for the whole programme of lessons delivered. Below are some individual observations of pupils. It should also be stated that due to Ohbot's design it enables the understanding of movement and special awareness for those that struggle with these concepts.

Pupil 1 Yr 6 - ADHD, ASD. This pupil has a good understanding of ICT knowledge. When this pupil made requests for assistance, the response needed to be almost immediate. If not, disruptive or negative behaviour was displayed. This behavioural pattern changed during the use of Ohbot in class. During the first lesson the pupil showed more patience waiting for help. The need to progress outweighed the normal behavioural pattern. By lesson 2 it could be seen that the pupil was not so quick to ask for help and started to develop their computational thinking, relying more on themselves to problem solve. It was noted that their attitude to succeed with this equipment was different to other ICT material. After just 6 lessons this pupil was showing much more patience and keen to develop and independently test ideas before requesting assistance from staff. Overall the change was noted with comments 'could Ohbot be used in everyone of this pupil's lessons' from other staff members.

Pupil 2 Yr 5 - Anxiety, Awaiting assessment for ASD and ADHD, Sensory Processing, Auditory Processing, Hyper Mobile. Ohbot was used to relate to humans as a theory that the children accept, that we humans are organic computers. Being able to use a piece of ICT equipment to explain how the brain processes information from our senses, has been noted to be positive in this environment. This pupil was able to understand and demonstrate through Ohbot the concepts of senses. Actions most take for granted, take considered thought by some. Being able to see these action broken down for Ohbot to complete the same functions as humans helped to keep this pupil engaged in the lesson.

Pupil 3 Yr 6 - ASD Non Verbal. This is a pupil that would not communicate with me for over a year. It could be noted however that the pupil was engaged in the lesson from the work it produced. This pupil was able to use Ohbot to develop some fantastic ideas to produce a sequence of movements both sequentially and concurrently. It was interesting to see that Ohbot acted as a conduit for communication, even be spoken to directly.

Pupil 4 Yr 5 - ASD, Anxiety, ODD. Interestingly, initial anxiety can be seen with any new concept or piece of equipment. To have a piece of ICT equipment like Ohbot soon overcomes these barriers. Pupils relax as they project a personality to match the fact that Ohbot looks as it does. Mostly each pupil named the Ohbot to use, leading to a connection that enabled the advancement of lessons through educational goals. For those that may be obstructive towards the planned advancement of a lesson, having pupils invest feelings into the lesson of a positive affection has enabled them to be engaged in that lesson, keen to reach the objectives for the benefit of Ohbot and in doing so themselves.