**Physical and Neurological Impairment (PNI) – Splash! City Maths**

The use of Assistive Technology in the classroom is crucial for children with physical difficulties. Clicker is often put into place to support Literacy skills, but what about Maths?

When recording work in Maths, most students with severe physical difficulties rely on adult scribing. Adult scribing however, should be the very last resort when choosing an access method.

University of Western Australia in their book ‘Scribing - The Manual’ label some of these disadvantages as being:

* Expense - Scribes must be selected and trained.
* Control - It removes immediate control of the writing process from the students.
* Organisation - The process relies on the student's ability to organise their thoughts to match the written form, keeping those thoughts on track and being able to navigate the ‘stop/start’ nature of dictation.
* Ability of the Scribe - It relies on the ability of the scribe to write down dictated information accurately, efficiently and legibly
* Familiarity - Unfamiliarity with scribing as a usual way of working and/or the adult who is scribing, may increase anxiety in examinations and some examination boards prefer adult assistants to be different than those who have supported the child in the subject are, so as not to compromise the information.

It is important that individuals record their work independently wherever possible. Through this recording, an individual forms more concrete memories and is then able to access these with greater ease.

Case Study: The use of Splash!City Maths to improve outcomes for children with alternative access methods.

The Primary school in question has a quadriplegic child who has the added challenge of Erbs palsy. The child requires specialist seating, a wheelchair, a walker and a standing frame, with several transitions occurring throughout the day. The child has full time 1:1 adult support at both learning and social times. The child is popular with peers, works at a near age appropriate level (Year 5) and is as physically active. The child has aspirations to be a Doctor.

Involvement of the Specialist Teacher for PNI

The child has been known to the Specialist Teaching Team since entry into school and through our recommendations, has learn how to access writing through Clicker 7 via a guarded or onscreen keyboard (depending on fatigue levels), joystick mouse and switches.

The child resigned themselves to the use of a scribe but frequently expressed to their PNI Specialist Teacher that they felt this was not satisfactory.

Splash!City Maths was discovered 2 years later and this seemed to provide the appropriate level of processing and the relevant access method needed.

Actions taken

Once made aware of the program, The PNI Specialist Teacher liaised with the school to see if they would be interested in Splash! as an access method. When a positive response was received, the Specialist Teacher was granted a temporary licence by Splash! and used this to show the school what the program looked like and the way in which these skills could be accessed. A remote training session was then arranged with Splash!, the school and the Specialist Teacher.

Future Support

At present the student is accessing all Maths work via computer and Splash! software. The pupil is demonstrating their true level of understanding as they are working independently. They have accessed Calculation and used the Graph section to plot positive and negative coordinates.

Moving forward the Specialist Teacher and Splash! Have worked on refining the process for Home Learning. A prompt sheet is now available through the Specialist Teaching Team to allow schools to set up home access to Splash! (thanks to the generosity of the trainer allowing pupils to have a home licence).

The Specialist Teaching Team are looking forward to seeing this program offered to younger children at the start of their learning and also seeing how the Secondary section copes with the rigors of GCSE and A-Level Maths.

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