

## **Personalised Learning...let's ask the person!**

'Schools are contributing to the upswing in the sales of tablet computers, with their numbers in classrooms more than doubling in the UK and US in the past year, figures reveal.' (TES 23 June 2013)

Schools in the UK, in fact all across the world, are increasingly investing in tablet computers of one form or another. For some it is an iPad, for others Android phones. They see the devices as being integral to student learning in the modern age (Luckin and Clark 2013). What these devices have in common is their portability and 'connectedness'. They tend to be instant on, connected to wireless or a phone network, rely on a touch screen interface and have battery lives that survive a day of learning (Traxler 2010). This is in contrast to what schools were buying as mobile devices five or more years ago as a 'mobile device' - commonly a laptop, which, although connected takes a few minutes to turn on, tends to rely on an input device (such as a USB mouse), has an ever decreasing battery life and is far less easy to carry around than a tablet or phone. Modern devices are claimed to support 'personalised learning' in a way that no other technology or teaching approach has managed so far (e.g., Speak Up Project 2012). So how is this possible and where is the evidence to back this claim up?

During the Summer of 2012 I undertook a small scale research project to explore how children who use mobile devices as part of their school culture view the way that they learn. Nine Y6 children who had been using iPod Touches for two years were randomly selected. It was felt that slightly more 'mature' users might give a more rounded picture of how the devices were used over a sustained period of time, thus minimising the 'flashy' effect that new technology could have on children. I also interviewed children from two schools to try and gain a perspective across two different teaching settings, potentially eliminating some of the teacher directed biases that must inevitably show. If there were underlying similar themes then it offered some strength to an argument for examples of effective use. The research took an approach that centred on the pupil's own perceptions of their learning. This resulted in open ended interviews where the children described ways that they use the devices both in class and at home that they felt really helped them to learn. The research was careful to identify that these definitions of effective learning were very much based on what the pupils felt was effective for them. There were no scores or tests used to 'prove' that the experiences they described increased their learning in a more traditional, quantitative way. There again, I am a much better driver than I was ten years ago. I could tell you lots of examples of why I am better despite not having any scores to prove it.

So that was the rationale for asking the children rather than observe lessons or interview the teachers. It was also appreciated that the testimonies of the children reflect their recollections of their experiences, not necessarily what ACTUALLY happened. In a sense that may be a pointless observation. Their recollection of what happened is probably more important in terms of what they took from previous experiences which now helps them deal with new experiences and situations which could be argued is a fundamental aspect of what 'learning' is.

### ***From the mouths of babes...***

So what did the children say? Well....lots and lots of things to be honest. They were asked to describe great lessons or learning experiences and try to pin down how and why the device helped them. It was fairly directed questioning but it opened up the role of the devices to lots discussion amongst the children.

One of the key factors that came up time and again, across all of the children and therefore both schools, was the idea of 'there when I need it'. We use an analogy when teaching the children about using devices effectively of a 'data hoover and a second brain'. The device can take in lots of different types of information and then store it in an easily accessible way as a 'second brain'. This only works of course when the device is there whenever and wherever it is needed. The portability of the device and the battery life are both key factors in this. The fact that the devices can 'hoover up' text, sound and images fulfills the first role; and the ease of accessing that information when needed to further support learning is where it becomes the second brain.

One aspect of the research paper examined some of the more influential theories of how we learn to compare to what the children suggested was effective learning for them. Associationist, constructivist, social-constructivist and communities of learning were all explored as learning theories. The first three particularly emphasise the role of building learning up from experiences (though each describes the mechanisms and modes differently). They also identify that you don't always learn things at the first attempt. It is through repeated exposure/engagement with a new phenomenon that you gradually acquire the knowledge and skills that are required in a given situation.

The children described how the device was able to store information so that they could use it for further work. It was always there when they needed it and they could more easily bring up a video clip of how they did a maths problem from three weeks ago than simply remembering. Using the Camera Roll or an app like Mental Note to easily store and retrieve self created 'artefacts' of information was an external support to the mental operations of linking new experiences to what had gone before. The children also described how this access to key information was also easier to share than they could do without the device. For example, one child described how they would be given a piece of writing to do on a topic. The teacher expected them to do some research then produce the work in a particular genre style, which would be the focus of the assessment. The children would then search individually but, without being asked, share information with one another to feed into their work. When asked if they used email to share the resource they replied 'only sometimes' as more often than not they simply found the information they needed then showed everyone else their screen. The others would then jot down what they found useful and then move on. The children were constantly working in teams to crowd source the most effective way of tackling a piece of work. This also has resonance with the idea of 'ecologies of practice' in a classroom environment (Boylan 2005).

In addition to the 'in class' work children would often email each other about work outside of lessons (though they nearly all told me that most often it would be socially related!).

So what are the implications for teachers wanting to support 'personalised learning' whilst also having to deliver a curriculum with specific learning goals enshrined within it?

## **For teachers**

There are many engaging activities that can be done using a mobile device but from a learning theory point of view some of the most basic, day in and day out uses are very effective. Developing effective learners who have strategies for effective ways of learning, has been shown through many studies to improve children's attainment and progress (e.g., Sutton Trust 2013). Mobile devices support several aspects of this metacognitive approach to learning (and teaching).

### 1) There when I need it

The device acts as a data hoover and second brain and is there as an external support for my learning when the mental processes are sometimes found wanting. 1:1 devices, with a child's own learning journey laid bare and interrogable on the screen allows the child to go back and use previous experiences to support future learning more efficiently than 'remembering' can.

### 2) Repetition

Research by Nuthall and Alton-Lee (1993) suggested the role of repeated exposure to learning experiences was crucial in retaining what had been learned. Mobile devices allow the teacher to re-engage students with learning experiences that are personal and immediately accessible whenever they choose. For example, the children could be asked to make a short video at the end of a key unit of work to show how to 'multiply fractions'. That experience in itself would allow the children to have access to the information on the device if they have to multiply fractions again in the future. However, if the aim is for children to be able to internalise their learning, teachers could promote re-engagement with that video at regular intervals over a period of time. This could be as simple as 'watch the video' once or twice a week while the teacher does the register (could be a bit dull!) or even share your video with a partner and they have to create a critique of it. This opens up the social aspect of the learning experience too.

## **References**

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