Tablet Based Learning in Early Years

LITERATURE REVIEW

The use of technology in the educational and developmental aspect for key stage 1 children is an important aspect to ponder. While many views vary from how these technologies such as tablets can have variable impacts on learning and perceiving abilities of different kids, it is important to realize that technology has made every department of life much easier, let alone the educational system. According to International Reading Association, incorporating technology into classrooms in the 21st century is an important aspect of increased learning for the students (Killeen, 2013). One simple definition of literacy identifies it as the ability of a human brain to recognize, understand, interpret, create and convey their thoughts, using the printed or handwritten materials with different contexts. It narrows down as the capability of people to be able to apprehend knowledge and then implement it into achieving their goals in life. As we see now, in 21st century a technologically sound person would be considered literate, similarly on the other hand if a person is not able to get his hands or even remotely understand the functioning of electronic devices such as tablets would not be looked upon as a literate one. When it comes to education in early years, educational institutes and management authorities have different views regarding it. Some find it necessary for a child to be able to comprehend digital methods of learning to have a proper literacy experience on the other hand, some even think that the early education should only be based on conventional and simple teaching methods (Yelland, 2018).

Even though the use of internet and computer-based learning has been in practice in schools for so many years now, but the introduction of iPads and tablets has made this system to take a whole new turn. Even though, companies have introduced these portable gadgets than can access to internet and contain all the literature anytime and anywhere in the world, many educational institutes have still not integrated tablet-based learning in their systems (Amy Hutchison, 2012). It won't be utterly wrong to say that tablets have become a somewhat necessity of today's educational systems. When it comes to improved learning, tablets play a vital role in forming a strong connection between home and school learning activities. Children can easily perform and duly record their activities on their iPads and teachers can easily keep a track of the activities during classroom and beyond (Killeen, 2013). But when it comes to children aged between 5-7, managing technology becomes a huge responsibility. Since, these are the early years that mould the minds of children either towards a successful strong individual or someone who becomes mentally lazy for the rest of their lives. The use of tablets for key stage 1 students has become a major concern for many educational institutes and several controversial views rise on how tablets and smartphones affect the learning ability of children in the early year. This paper will provide a detailed review on whether to or not to integrate tablets in early education years reciprocating the challenges and opportunities associated with them. Also, it will highlight the perspectives of several practitioners on teaching key stage 1 with tablets.

2.1. ADVANTAGES OF TABLET BASED LEARNING

A survey carried out by US Rideout in the year 2011, provided that almost 50% of 0-8 years olds have access to touch screen devices at home and an average of 43 mins are spent by 11% children per day. A 10% of 0-1-year-old has used smart device and almost 40% of 2-4 years olds have operated a smartphone device themselves. This study proves that smart devices have played a vital role in the development of cognitive skills of children (Neumann, 2013).

The advantage of tablet-based interface over the conventional computers and other learning methods is that it provides an upper hand when it comes to user friendliness. A lot of time is saved from spending on learning unnecessary operating features and a simple touch can bring ease into spending more time on developmental activities. It is also said that tablet-based learning improves the development of emergent literacy skills. This is due to the animated features and print based interface that children are more attracted to these devices and develop a better observing, reading, understanding and due to sound and listening they also develop better speaking skills. They are also lightweight, easy to carry and can be used for learning anytime rather than needing a huge setup otherwise (Neumann, 2013).

A research published in International Research Journal of Interdisciplinary and multidisciplinary studies state practical learning to be a more effective approach for developing improved skills in young children (IRJIMS, 2015). Children can also carry out practical learning from these activities. For example, they can watch DIY videos and then follow the procedure step to step this leading the whole process to be etched in their memory.

With an iPad each student is able to have a complete access to digital text from worldwide which is rather a limitation when it comes to physical modes of learning. Learning the use of digital text in everyday study is a whole different field which is known as new literacies, teachers need to vigilant when it comes to adopting digital learning and teaching kids how to use them. Another benefit of digital texts is that each student can work up with his or her own pace and it has also proved to beneficial for struggling readers (Amy Hutchison, 2012).

The use of technology in curriculum can increase the interest and motivation of students towards studies. The adoption of new learning in today's curriculum utilizes strategies and learning systems that prepare children for changing dynamics in future. It is also said that new leaners are more receptive and response well to changes. They also possess to think analytically and have a creative approach when it comes to problem solving. New learners are also eager to solve critical problems and they develop a curiosity when it comes to facing new ideas. The use of mobile technologies and smart phones also promote the understanding of the world from a very young age too. Studies prove that children who use iPads and tablets in their early years go through quality learning experiences that improve collaboration with others and an improved opportunity for independent learning (Yelland, 2018).

More often than not parents and teachers are not convinced about the use of technology in every day learning especially for children. They are sceptical about the use of technology to promote study in educational systems. And the reason behind this very simple. Most parents believe learning from digital objects have many chances of attention diversion and thus losing the concentration quickly. But its about time this stereotype should be broken. A study in 2013, used eye-tracking measure to find out the difference between reading e-books and conventional physical book. Researchers prove that effort and comprehension levels remain same in both mediums. Another research carried out by University of Pavia, Italy, also proved that the reading attention and learning outcome was same regardless of whether the students used iPads, tablets, smart phones or printed books (Pellissier, 2014).

Not only for conventional learners, if a child suffers from a very slow writing speed and poor reading ability it would be nice to have eBooks. eBooks are a great way for dyslexic kids to adopt a learning pace equivalent to that of their class mates. This help them feel smart enough to understand and will boost their self-esteem. Besides this, any child suffering from a physical disability or an injury can also use tablets to hear lessons directly (Pellissier, 2014).

Even though students can be instructed directly on how to use technology in their learning activities, it is important to carefully integrate the use of tablets and smart devices in our educational systems so that best learning outcomes are availed from it.

2.2. DISADVANTAGES OF TABLET BASED LEARNING

On the contrary, another study suggests that while learning from tablets and eBooks, students are able to recall fewer narratives as they can get distracted through animations and content placements. Another point is that student achievements can also be hindered by excessive use of technology in their learning activities, as students become lazier when they have an easy access to all the information (Killeen, 2013). A study suggests that students' activities regarding electronic devices, especially for young children needs to carefully monitored so they do not proceed in any wrong direction. A research carried out by programme for International Student Assessment (PISA) provided that schools who use Information and communications technology in their learning have scored lower in mathematics and science (Spiezia, 2011).

The number of households purchasing and using tablets has increased tremendously in past few years. Since 2012, the number of households purchasing tablets have doubled approximately. Often times parents complain that it is hard to keep their toddlers away from smart phones and tablets. In most cases, parents have to blackmail children to get homework or basic tasks done with the allowance to use iPads. This addiction has proved to be the most observed problem in almost every household. Besides, school hours, children spend hours on their tablets playing games and watching YouTube (Cocozza, 2014).

Another drawback of too much technology is children almost give up all physical activities. According to World Health Organization children aged from 5 to 18 years old should spend one hour daily for a healthy brain and physical growth. This is all compromised when children spend excessive time on their smart devices. Playing football and racing games on screens eliminates the desire felt by them for physical activity. It is also proved that even in later years high level of physical activity will not nullify the damage caused by excessive screen time. Children's gross motor skills are also compromised because of excessive screen times. Long exposure to screens has also claimed to cause sleep disorders. As per a Spanish study a number of 100 children between aged 2 to 6 years, experience shorter and disturbed sleep duration due to excessive screen timing (Domingues-Montanar, 2016).

2.3. PREVIOUS LITERATURES FOCUS POINTS AND FINDINGS

Over the last few decades, the use of technology and smart devices in learning curriculum has been an ongoing debate. Despite many controversies, there is a constant emphasis by government to improve educational systems with the help of technology-based teaching and learning. Owing to the need of speaking on this topic there have been several publications regarding this topic. Most of the papers have discussed the evolution of technology which has brought educational institutes to switch from conventional modes into more advances learning methods, after that advantages and disadvantages related to this technology use in learning curriculum have been widely discussed. Where some papers are proving tablets to be an important part of learning institutes some totally negate the use of smart devices especially for young children whose brain are in developing stage yet. One such lacking commonly observed in most of the papers is the comparison between the two methods and then proving through statistics the most suitable method.

A wise decision would be evaluating the cause and affect of conventional vs technology-based learning on not only students but teachers as well to find out supporting evidence that makes and helps in better decision making without keeping too much at stake.

One of the most efficient way of doing this is through direct evaluation and observation of impact of using technology on children in early years. It is a lot helpful to view things from practitioner perspective to have a more proper insight on how use of tablet is affecting children. The study discussed here carried out a survey in 2013. The practitioners used to work with 3 to 5-year-old children. According to the results all children have access to books whereas 22% of them have an access to tablets. Practitioners provided that 80% of the time they carry out books-based learning with children rather than tablet-based learning. It was also evaluated that children from aged 3 to 5 use tablets 1/3rd time of which they use book for learning. They also evaluated that children are more confident and feel free when using their smartphones without the parental guidance or an adult over their heads rather than reading books when left without adult supervision (Formby, 2014) .

As a result, young children are more likely to pick up their tablets rather than books when left without any adult's supervision, similarly they are more attracted towards using smart devices even if it's for learning purposes rather than picking up a book.

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