

To iPad or not to iPad

Tara Fagan and Tania Coutts
CORE Education
Christchurch
New Zealand

Introduction

The introduction of the iPad in 2010 marked significant steps in the development of tablet computing and mobile devices in education. Their intuitive touch screen interface, portability and extended battery life make them an appealing option for students of all age levels. In this pilot investigation, the authors observed how two early childhood services (one kindergarten and one childcare centre) used iPads to extend the range of learning opportunities they offer for children up to five years old. The centres involved provide a varied curriculum guided by children's interests and adults' provocations. Both centres are part of the Healthy Heart Awards Programme with a philosophy around promoting fitness, outdoor exploration and learning through play. There is a history of the integrated use of digital technologies for teaching and learning purposes and in both cases a catalyst for this has been the centre leaders who have a strong interest and competence in information and communication technologies. The thoughts and recommendations shared are gleaned from the authors' on-site observations at the two centres as well as discussions with both teachers and children about the use and value of the iPad. This pilot investigation is intended to provide early childhood teachers who may be contemplating the use of iPads with some pointers regarding why and how these devices might be used. It also recommends some apps that complement the pedagogy underpinning Te Whāriki (Ministry of Education, 1996).

An educational case for iPads

As iPads are such a recent phenomenon, there is scant research on their use and value in early childhood contexts. However there is a body of literature that supports the educational value of digital technologies in general and which is relevant to this investigation. In a literature review, Bolstad (2004) argued that ICT deserved serious consideration in early childhood contexts because it was already part of the lives of children born in 21st century. Eight years on this argument is even more compelling although as Bolstad inferred, and we would agree, this alone is not a sufficient justification for their use in centres. Bolstad concluded that under certain conditions ICT can enrich or transform the everyday learning, roles and relationships experienced by young children. One of these conditions is educators having clear learning intentions for children as a prerequisite to the selection of ICT tools. In Aotearoa/New Zealand such intentions would logically flow from our national curriculum, Te Whāriki (Ministry of Education, 1996).

Siraj-Blatchford and Siraj-Blatchford (2006) suggested that ICTs work well in supporting communication and collaboration, creativity, socio-dramatic play and learning to learn (metacognition). However, for these learning achievements to be realised, achieving quality adult interactions is more important than the tools themselves. Similar conclusions were drawn in a report summarising practitioner research in sixty early childhood centres in Aotearoa/ New Zealand (Hatherly, Ham & Evans 2009).

In a more recent UNESCO Study (2010), seventeen early childhood centres from nine countries were invited to share case studies highlighting the ways in which ICTs, including tablets could be intentionally integrated into play and learning activities rather than used as 'edutainment'. What was uniformly apparent in the case studies was that the digital technologies facilitated more complexity, collaboration and creativity in the activities and this occurred because the children were the ones in control of the devices and therefore their learning. Through a combination of the tools and thoughtful teaching strategies, children were able to try out alternative ways of doing things, make connections between elements, create new story forms, solve problems together, rehearse and modify their work and see things from others' points of view.

Getting started with an iPad

The teaching teams spent time discussing the educational merits of an iPad prior to purchase. Furthermore, the parent communities were consulted on their views. The teachers considered how the iPad would work with their existing technology and how they would use it within their environment. Both centres settled for open-ended apps that fostered creativity, collaboration and were interactive.

Prior to its introduction to children, teachers took the iPad home to explore its functionality and some of the apps that they intended introducing to the children. As one teacher said,

“There are so many apps available and not all of them support children’s learning. It is our responsibility to ensure that we provide the very best for our children. Using an iPad for learning is like all teaching, we need to plan our learning experiences”

At the time of our investigation, each centre had one iPad. In both cases these were available for children’s use although they were kept in a cupboard and the children asked a teacher when they wanted to use them. (This has since changed with children’s growing competence and now children access the iPads themselves). When asked about the care of the iPad in children’s hands, teachers were unanimous that children used the iPad with the utmost respect, often tutoring each other in the appropriate ways of working with it.

How the iPads were used

Our observations and discussions with teachers in the two early childhood centres suggested a variety of key benefits to children's learning.

Supporting Collaborative learning approaches

On the whole, children collaborated rather than worked in isolation with the iPad. At one centre, the iPad could be projected onto the big screen and this encouraged children to work on 'projects' together, providing each other with feedback and feed forward. Collaboration between teachers and children was observed as they explored and learned together. The iPad also promoted collaboration between the teaching team as they discussed and critiqued apps.

Supporting creativity

Because of the nature of the apps selected by the teachers, the iPad provided children with another avenue in the curriculum for exploring creativity. Many of the apps were designed for creating stories, incorporating visuals and audios that the children could produce themselves. For example, teachers were able to engage a group of boy 'architects' to record their own detailed stories about their block creations by encouraging a 'photographer' to take photos of their work as it progressed. Their creations were valued and became part of a permanent record that could be revisited through the stories.

A teacher in one centre, who is an artist, commented that many artists pre-plan their work. For instance a jeweler plans and designs a piece of jewelry prior to shaping the metal. She noted that the iPad provides children with opportunities to do this too. An example of this was the use of a pottery app where children could plan their sculpture before sculpting with real clay. Another example of this is a woodcarving app where children could manipulate and carve a piece of wood. This led to two children, who had never accessed the centre woodwork area, to create with a real piece of wood

Inspiring Learning

The bonus of working with an iPad appears to be its intuitiveness. The all 'touch' function is appealing to both children and teachers. A teacher, in one of the two centres, was not at all interested in using technology. The ease of the iPad however, enticed and encouraged her to support the children and further her own learning. She articulated her newfound passion of how the iPad worked for her learning style. Clearly, there is something appealing about the iPad for inspiring learners. In both centres, teachers noted that children who were reluctant to be part of literacy experiences, regularly engaged in literacy learning via the iPad.

Documentation and Assessment

Teachers reported the value of the iPad as a tool for documenting and assessing children's learning. The portable nature of the iPad enabled teachers and children to work alongside each other to record their learning. The iPad was able to add the 'child's voice' with ease either written or recorded depending on the nature of the

app. An example of this was a group of children spending time in the sandpit creating drains and roadways. Their work was captured through video, photos and written text in one app and then shared with the children and their families. Feedback from teachers highlighted that the iPads provided opportunities to capture 'in the moment' documentation of children's learning.

Communication with Families/Whānau

Fostering and building relationships with parents/whānau is an integral part of everyday practice at early childhood centres and where these are strong positive outcomes for children are more likely. The iPad is another tool that can enhance communication between centre and home. Many apps provided children and teachers with the option of sharing their work with parents/whānau. Teachers reflected on the fact that the ease of using the iPad made it a perfect communication tool. It enabled families to access information immediately, with the bonus of documentation shared not just having to be paper based. Parents/whānau also had the option of sharing their children's learning further. For example emailing Grandparents video snippets and/or learning stories. This was a feature that both centres talked about.

Leadership and Peer Tutoring

As teachers we understand that supporting others learning reinforces our own learning - ako in action. We observed aspects of leadership and peer tutoring when in the centres. Children assumed responsibility for the iPad, reminding their peers, and sometimes teachers, of the 'rules' about looking after the iPad. The nature of tuakana/teina (older/more experienced supporting the younger/less experienced) was also evident when children used the iPad. Individual children became experts in particular apps and other children approached them for assistance when needed. This leadership included child to child and child to adult.

Some of the apps recommended by teachers in this investigation

Sock Puppets is storytelling app in which children can create a short story by using a range of characters, props and backgrounds and then recording their voice. This app automatically changes children's voices to 'puppet talk', providing a humorous aspect that seemed to particularly appeal to those children who are not confident to speak aloud. Teachers encouraged children to script out their story being 'acting' it out - this brought in the foundation skills for early literacy and mathematics.

My Story provides children and teachers with the option to upload their own photos, draw their own pictures, add their own text and/or record their own voice. *My Story* provided a great opportunity for oral language as well as exploring their creativity through a different art medium. This app gave the option of saving the story in the iBooks library. iBooks enables centres to build up an online library of digital stories created by the children. In time, this will be an incredible resource for children/parents and whānau to revisit and retell authentic stories.

VidRythm was another popular app that supported oral literacy and creativity through music. Children sounded out letters or sounds, while taking a video of themselves. These recordings of the children's voice are put to music and a video produced. Like other apps, this is great fun while also having the important aspect of oral literacy behind it.

Strip Design was another app that was trialed as it enabled children to take photos, add stickers and text. Children enjoyed playing with this app, identifying letters in their name and spelling out words, often with teacher support. Like most apps, it provided the ability to email their work to their families. Strip Design was also valuable as a teacher's tool for writing basic learning stories. The ease of use meant that children could have an active role in writing their learning stories alongside the teacher, giving children real ownership of their learning and assessment. Children's voice was evident in these stories.

Pic Collage enabled children to add photos from the library or take photos utilising the camera. Children could easily manipulate photos - size, effect and borders - as well as change the background and edit text. This app proved very successful for children taking photos of their creations, both in the block area and art area. Children were able to add their photos and with the support of the teachers tell 'their story' about their creation. This was a great app for encouraging oral language and encouraging children to document their work. There was also the ability to share their work with parents/whānau through email or uploading to the centre blog.

There are many eBooks available for the iPad, including traditional favourites. eBooks have a range of options including reading the book yourself, having it read to you and following along with the text or telling the story yourself. Some have interactive features including *Morris Lessmore*, which encourage children to explore the story and others like *Pirate Scribblebeard* (a favourite in both centres) use the child's drawings as the illustrations. While these books had an appeal, interestingly, children's overall preference in one of the study centres was for reading a paper book rather than the iPad. The eBooks did prove popular when played through the big screen allowing for big group storytelling.

Conclusion

This small-scale investigation would indicate that there are benefits to iPads in early childhood education when integrated into the everydayness of an early childhood curriculum in a centre with a strong teaching pedagogy.

Both teachers and children were overwhelmingly positive in regarding iPads as part of the centre environment. In these two centres it would seem that the iPad contributed to a rich curriculum of learning.

In making recommendations, the authors of the UNESCO report suggest that realizing the potential of digital technologies in early childhood learning most of all requires strong will and critical approach to teachers' own pedagogical experience, perception of modern knowledge about the role of ECE, courage and the need to innovate, reverence of children and their parents and – last but not least – curiosity and the itch to explore the potential of ICT to support this kind of transition. (p 104)

Tara Fagan
Tara.fagan@core-ed.org
@Taranz1

Tania Coutts
Tania.coutts@core-ed.org
@Tarnzc

References:

Bolstad, R. (2004). *The role and potential of ICT in early childhood education. A review of New Zealand and international literature*. Wellington: NZCER.

Hatherly, A., Ham, V., & Evans, L. (2009). Effective learning in early childhood education? The impact of the ECE ICT PL Programme: A synthesis report. Retrieved 20 October 2010 from <http://www.educationcounts.govt.nz/publications/ict/41987>.

Ministry of Education. (1996). *Te Whāriki: he whāriki maturanga mo nga mokopuna o Aotearoa*. Wellington: Learning Media

Siraj-Blatchford, J., & Siraj-Blatchford, I. (2003). *More than computers: Information and communication technology in the early years*. London, U.K.: The British Association for Early Childhood Education.

UNESCO. (2010): Recognizing the potential of ICT in early childhood education: Analytical survey. Moscow, Russia: UNESCO Institute for Information Technologies in Education