

Sarah coordinates a pre-school program at a long day care centre. She has been working as an educator in various service types for over 15 years. Recently Sarah has noticed that many of the children attending the centre are talking about touchscreen devices they use at home, such as tablets or smart phones. The children share stories with Sarah about how they play with apps. They also use the camera and microphone functions with their siblings and friends. Other educators at the centre have observed that children are using 'make believe' devices in their role-play.

Until now Sarah had thought of technology as a limited and isolating tool and therefore not an appropriate option for supporting play-based learning in a quality preschool program. However, inspired by the children's interest, Sarah begins to investigate how tablets can support children's social and exploratory activities and be used as part of her play-based program.



What is the role of tablets in play-based learning?

Like Sarah, when they are planning a play-based early childhood program, educators work hard to provide children with contexts that promote rich learning experiences. Until recently, educational researchers have held the view that technologies do not have a strong role in these contexts. Technology was considered to be at odds with a play-based learning approach and as 'inappropriate' for young children (Healy, 1998).

However, with the recent emergence of touchscreen devices into preschool settings, technology is no longer viewed as inappropriate for young children (Yelland, 2011). In fact, technologies are now promoted as a significant aspect of young children's lives, and they are considered an important part of providing children with a balanced play-based early childhood education program.

The specific use of tablet functionality such as the camera and microphone, and the inherent tactile nature of touchscreens, has given this mode of technology a new pedagogical value. Technology is now seen as a tool that can be readily used by young children in their play. When used to create meaningful content, technology can facilitate

'Enjoyable and engaging shared experiences that optimise the potential for children's learning and development can support relationships both with adults and their peers' (National Association for the Education of Young Children, 2012).

Emerging research demonstrates that children learn to use technologies *through* play, and that once they have mastered how to use different technologies they use them *in* their play in highly creative ways. Educators are now being encouraged to understand play-based learning using technologies as 'digital' play (Edwards, 2013; Stephen & Plowman, 2014).



Group of children sharing a tablet at kindergarten



Using the camera for play and learning

We noticed that the children did not immediately use the cameras in a sophisticated way. Instead, they engaged in lots of exploratory behaviour during which time they established all the different functions of the cameras. We noticed that these exploratory behaviours aligned with what are commonly accepted play-based behaviours in early childhood education such as problem solving and skill acquisition. This meant that the children were learning to use the cameras through play. We also noticed that once they had mastered the functions of the cameras that they started to use the technology in their play. Here the children used the cameras to create their own stories or narratives which they would film and share with other children and the educators. This meant that after having learned to use the cameras through play they were using the cameras in their play.

Bird, Colliver & Edwards, 2014

Apps and play-based learning

The Australian Early Years Learning Framework (DEEWR, 2009) references technologies and ways in which they can promote play:

- **Outcome 4:** Children are Confident and Involved Learners: 'Play provides opportunities for children to learn as they discover, create, improvise and imagine.'

- **Outcome 5:** Children are Effective Communicators: 'Children use information and communication technologies to access information, investigate ideas and represent their thinking.'

Research increasingly suggests that well-designed apps for young children can support these learning outcomes. Dr Kate Highfield from Sydney's Macquarie University says: 'It depends on the app and how it's used. Apps that promote skills, such as "creativity" and "communication" are good to aim for, as well as apps that encourage "co-play" or interaction.'

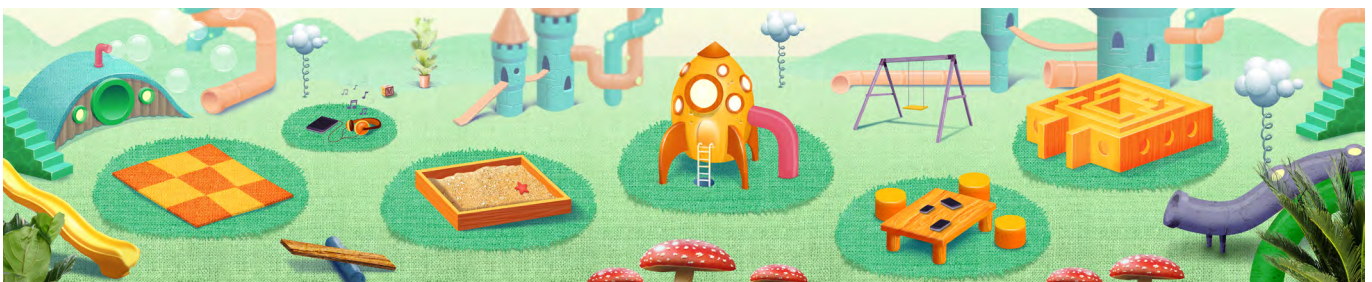
Australian research shows that children responded to the 'immediacy of cause and effect of the tablet Apps' (Yellend and Gilbert, 2011). This research also found that the way children in a 4-year-old kindergarten program used tablet devices mirrored their engagement with the more traditional experiences on offer.

There are seemingly endless 'early childhood' apps available for download onto tablets. The learning design quality of these apps can be varied. To select and distinguish apps suitable for a play-based program, educators should evaluate the design of the apps based on what they know about the value of children's play for learning. In particular, educators can ask of the app:

- Does it provide opportunities for open-ended activities?
- Does it provide a balance of content and actively engaging activities for children?
- Will it promote interactions and discussion amongst children and staff?

For the purpose of ELLA, children will be focusing specifically on the ELLA apps themselves.

The ELLA apps have been designed to encourage children's language awareness via a play-based learning approach. This includes opportunities for open-ended and more structured play-based activities.



Playspace from one of *The Polyglots* language apps

Tablets in early childhood practices

There are many different ways children and educators can use tablets and apps in play-based early childhood education learning environments:

- **Communication tool to parents** – Display photos and observations from the day as a slideshow at the front desk or mirrored to a TV display
- **Communication tool to children** – Share photos or animations of activities that the children have undertaken or that the educator would like them to undertake
- **Educator-led learning experience** – Select an app to share with a child to extend a learning moment; alternatively, read a book, view a location on Google Earth or watch a YouTube video with children
- **Child-led learning experience** – Tablets are made available for children to take photos with or read a book on, or tablets are set up with headphones and placed on a table ready for an activity that children might choose to undertake
- **Educator-child joint learning experience** – Educator and child build knowledge together based on children's interests, and select apps that provide appropriate support and extend interests
- **Collaborative child learning experience** – Children come to the tablet table; two or three children play on the same tablet, working together to play and explore the app in front of them.

If we are using screens, we need to be using them to their best capacity rather than just for low-level interaction. Some apps can enhance learning incredibly, particularly when they are to do with practising specific skills or when they give the child the opportunity to create their own content and communicate in new ways.

Kate Highfield, Macquarie University, 2013



Discussion and interaction between educator and child



Sarah has now had two tablets in her preschool program for the past six months. She likes them because they are intuitive for children and other educators to use, and also because, being wireless, they are portable and can be used anywhere in the classroom and even outside to support children's play-based learning. Sarah has seen how the children take the tablets to their play and use them to source information, to extend their art work through digital photography, and to document their own activity.

Sarah has grown in confidence in her use of tablets with young children. She now feels that integrating this technology into her program is essential, as many children come to preschool with a prior knowledge of – and experience in – using technologies.

Sarah, an educator, is making a deliberate decision to 'build on children's existing knowledge and skills to enhance their learning' (Early Years Learning Framework, 2009).

References

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Boys sharing a tablet