

How to better implement ICT Activities for Language Development?

By Michael Hilkemeijer



In a digital society, language acquisition has changed quite considerably. Young children are walking into early learning environments with a taste of ICT in their lives as a result of early exposure to a wide range of different forms of communication in their home environment.

As an inside look into our [technology in early childhood education resources](#), this article will explore ways in which young children can experience ICT as a means of communication and as a creative tool. It will help you to mine these rich digital resources in your educational setting in order to support young children's literacy and language development in early childhood education.

Introduction

What is Communication and Language development in early childhood education?

Communication and language development in early childhood education involves giving young children the opportunity to experience a rich language environment in order to develop their confidence and skills in expressing themselves and speaking and listening in a range of situations.

What is communication development in early childhood education?

Communication is conceptually quite sophisticated as it involves imparting or exchanging information by speaking, writing or using some other form of medium; it involves a message containing information or news; or a message that can be mass-produced.

Young children are immersed in cultural practices of communication. Communication development in early childhood is about learning and developing to communicate and interact in many different ways.



The Benefits of Language Development in Early Childhood

In the early years of a child's life, language development plays a significant role in laying the foundations to all social interactions. The development of language is closely associated with and supports cognitive and brain development (Raisingchildren.net.au). Therefore, language development in early childhood is of great importance in the early years of education.

According to RaisingChildren.net.au language and literacy development in the first eight years are the most significant. The steps that it encourages you to take should be followed to ensure that your child or children in your care develop the language and communication skills they need.



Research indicates that lack of language development in children can lead to the following:

- Academic difficulties;
- Learning disabilities;
- Shyness and social difficulties;
- Anxiety disorder and;
- Behavioural problems and ADHD.

(www.adam-mila.com)

Technology and Language Development

Meaningful technology integration in early childhood education involves developing purposeful language preschool activities. In this section, I will discuss the role of technology in language development and will examine the impact of technology in language development in early childhood learning activities.

How does Technology play a role in Literacy Development?

Emergent literacy is one area of learning that the use of ICT can greatly enhance. In a digital society, the development of digital technologies has changed the nature of print-based literacy. This means that ICT can be integrated into teaching and learning to transform literacy development in early childhood education.

Digital play opportunities can strengthen everyday literacy teaching and learning in early childhood classrooms by promoting engagement with ideas in new and dynamic ways. However, for this to occur you as the early childhood teacher need to be aware of the potential of such environments as contexts for play.

How does Technology help with Language Development?

Technology and language learning in early childhood education is not the future, but the present in education. This is because communication and language are one of the prime areas of learning and development. The use of new digital technology in early childhood education has become the perfect complement to mastering or gaining a command of a language.

The vast range of digital resources has brought with it the benefits of technology in education. However, as an educator, it is important that you mine these ICT tools for early childhood education to support children's language and literacy development, and to ensure that all children have access to digital as well as paper texts.

Did you notice I switched to ICT?

That is because 'communication technology' is the CT in ICT. It is "an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on..." (Rouse, 2016, as cited in Savage and Barnett, 2017, p. 59). Thus, enabling experiences of a rich language environment across a range of situations.

As mentioned, there is a plethora of ICT tools for early childhood education, so what are the benefits of technology in education in relation to the following areas?

- Language acquisition (speaking and listening);
- Reading development;
- Mark-making development.

Language acquisition

- Taped stories and headphones – the opportunity for children to listen in a quiet, intimate way. It is important that young children can play and explore digital technology in early childhood education as it gives them a sense of empowerment. By providing with multilink headphones you are enabling them to work together.



- Digital recorders, microphones, talking photo albums – as above but more personalised. Also, they allow for careful listening without visual cues. Such devices enable them to practice giving instructions, expressing their ideas and feelings, and giving them the opportunity to listen back and critique their own language. In addition to this, when they record it allows them to erase and re-record if they feel dissatisfied with their first attempt.
- Walkie-talkies, two-way radios, mobile phones – children practice making themselves understood when not face to face. This encourages children to communicate with someone who they can't see which is a skill many young children find challenging.
- Recordable binoculars – children can use descriptive language.
- Talking clipboard – combine mark-making and communication.
- Interactive Whiteboard – it brings topics into the setting which would only otherwise be accessible in book form. Young children are encouraged to use a range of communicative language skills and vocabulary, stimulating debate and verbal negotiation among the children.
- Videos – children can discuss and anticipate the action.
- Slideshows – children can discuss/narrate the slideshow.
- PC/tablet computers and games – the children's learning is supported by visual clues. Most PCs also support voice recognition is fantastic for those with visual impairment.



As young children continue to be exposed to digital devices such as handheld devices, laptops, and computers they are also exposed to a wide variety of different forms of communication in their home environment. Such digital technology enables them to engage with spoken language(s), as well as with a range of visual texts.

As an early childhood educator, it is important that you mine these rich digital resources in order to support language and literacy development and ensure that all children have access to digital as well as paper texts. Your role as the educator should be to encourage children's access to a range of experiences beyond the early years setting, through the medium of digital technology (McLean, 2013 as cited in Kaye, 2017).

There are many affordances that digital technology can provide in relation to language development. Nemeth (2015, p. 117) states that it can offer early childhood educators and families ways to improve learning experiences for dual language learners (DLL):

- Internet;
- Flexibility;
- Supporting different languages by providing instant translations;
- Tracking abilities so that the learning can progress;
- Here and now responsiveness;
- Cultural responsiveness and flexibility;
- Organisation and searchability;
- Portability;
- Self-paced learning.

Digital technology and language development in early childhood education have also proven in past studies that with right scaffold and support, quality software can allow children to engage in self-exploration and tailor the software to their individual needs.

Here is a case study Brooker and Siraj-Blatchford (2002, p. 269 as cited in UNESCO, 2010) of this in action:

“The use of the computer by the bilingual children that we observed was especially valuable. It was frequently found that accessible language forms were being exemplified and supported through visual cues and animations, and that these were frequently repeated. Instances of language learning, and linguistic practice, in response to the software, were regularly recorded. The computer often provided a shared focus and experience for children, who didn’t share the same spoken language, and this undoubtedly contributed toward the development of the very positive, collaborative, and language enriched multicultural learning environment that we observed.”

Reading Development

- Taped stories and headphones – there is an opportunity for children to understand how texts work. They also learn about page-turning as well as building up anticipation of the storyline.
- IWB/slideshows – these introduce large print and different fonts which children can begin to read together.
- Visualiser – these technologies share any text with a group of children.
- PC/tablet computers – children’s learning is supported by visual clues.
- Photocopier – supports reading opportunities.

Mark-making development

- IWB – it gives the children satisfaction of producing an image or caption.
- Keyboards – helps to distinguish between lower- and upper-case letters.
- PC/tablet computers – the children can produce satisfying products which can be printed off.
- Bee bots – children can use these to write for a purpose.
- Video and camera stimuli – as above.

- Emails – children can communicate and express themselves in print.
- Printer – children can produce a permanent record of a piece of work.
- Word processing software (e.g. 2Write, Clicker 6, MS Word) – provides a structure for child-initiated composition.

Possible Advantages of Using Tech for Language Development.

As ICT becomes an integral part of young children’s lives early childhood teachers are starting to understand the many benefits that technology in early childhood education can have on language development in early childhood education.

Living in a digital society has brought with it a plethora of tools and resources that make it easier and more engaging for young children to learn the language.

Already on this page, I have discussed many benefits of integrating ICT in early childhood education. However, here are some of the positive impacts that technology can have on language development for preschoolers.

- Enhances the environment for learning.
- Ties the classroom to the outside world.
- Saves time for organising and arranging lessons.
- Speaking and pronunciation abilities.
- Increases the potential for further potential growth.
- Access to a wide range of resources.
- Increased engagement and motivation.
- Improved accessibility and flexibility.
- Personalised learning.
- Enhanced communication and collaboration.

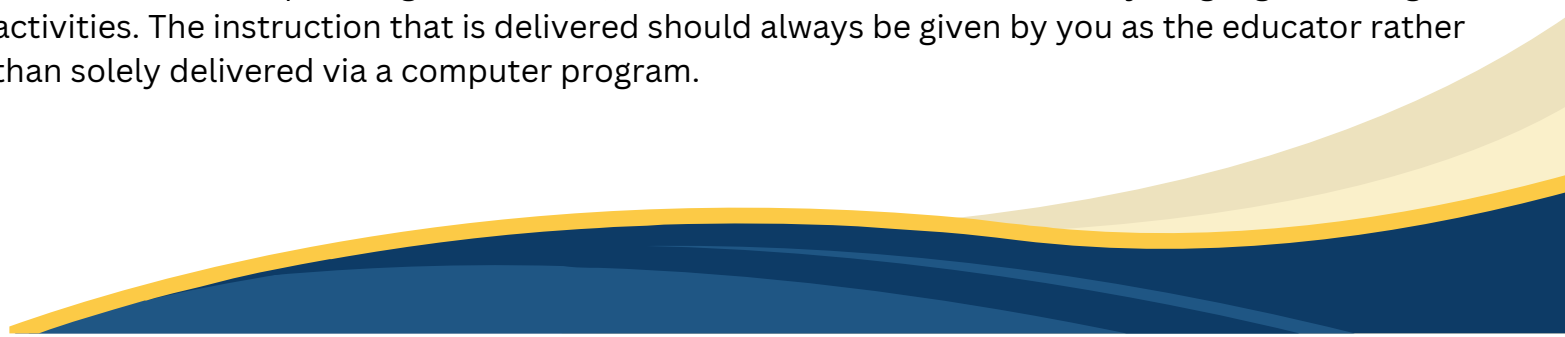
The future possibilities of ICT in language development for preschoolers are promising and can further enhance the language development experience. However, it is important for young children to use ICT as a tool to enhance language learning and not rely on it entirely.

How does Technology support Cognitive Development?

Through the use of technology cognitive development can be achieved with the processes such as collaboration. The explosion of the extent to which ICT resources are rapidly becoming a part our everyday lives clearly adds to cognitive demand. ICT tools for early childhood education such as computers, recordings, audio, cameras, photos, and videos have several advantages that can aid in children’s cognitive development. For example, adventure games have been shown to improve attention, focus, and reaction time.

What is your role as a teacher in technology-enhanced language learning?

The integration of digital technology in early childhood education is an instructional choice that should involve the planning, instruction, assessment and facilitation of any language learning activities. The instruction that is delivered should always be given by you as the educator rather than solely delivered via a computer program.



- Research does not support the isolated use of technology for acquiring a language.
- Interaction with a language educator is critical to building spontaneous interpersonal skills needed for real-world communication.
- Intercultural competence is best acquired through human interactions and meaningful experiences facilitated through a language educator.
- Educators use content knowledge, research-informed teaching strategies, and effective technology applications to support language learning.

(ACTFL.org)



What is the role of digital technology in language development?

Digital technology can and should always be used to enhance language development but it should never just replace other traditional methods. Through the purposeful use of digital technology:

- Students read, listen to, and view authentic, engaging, and timely materials from the target culture.
- Students practice interpersonal skills as they interact via video, audio, or text in real-time with other speakers of the target language.
- Students collaborate on presentational tasks with their peers or teacher, anytime, anywhere.
- Students work at their own pace as they access online content and/or utilize computer adaptive programs managed by their teacher.
- Students practice discrete skills with engaging online games and applications.
- Students benefit from differentiated instruction where multiple applications can be used to assess students, assign varied tasks, track data, give real-time feedback, and manage classrooms and lessons.

(ACTFL.org)

How to Promote Language-rich environments with preschool Tech today?

Language development is one of the most important aspects of education in the early years as it allows children to communicate with people in their lives.

There is a wealth of information out there from research that has indicated the importance of good early language skills without which young children would be at risk of social, emotional, educational and economic disadvantages.

Studies have indicated that those children with advanced reading capabilities are usually brought up in an environment that has exposed them to a significantly larger vocabulary.

We also know that the key factors in language development in early childhood education include:

- That children learn when adults speak to them;
- Language is more than just word;
- Language gives children space to talk;
- Provide many opportunities for imaginative play;
- Read (and tell stories) aloud.

(www.geteduca.com)

Children need a rich language environment in order to learn their first and subsequent languages. So, the challenge remains for many early childhood teachers to ensure that all children have access to a stimulating and diverse range of verbal expression and so that they begin to develop a wide variety of vocabulary.



A Technology-rich and language-rich environment

Digital technology in early childhood education can play an important role in helping the teacher, the child, the family, and the early childhood learning environment be ready for the year to start in a welcoming way.

The key when integrating technology in the preschool classroom is to ensure that it is used as a two-way communication because passive listening is not as powerful as experiences.

There are numerous opportunities for children to communicate their ideas and feelings. For example, repeating vocabulary, stories, songs, and rhymes using adult-modelled language etc.

The CT in ICT in early childhood education means that you have opportunities to provide an environment that encompasses devices such as mobile phones,

computers with access to email and the Internet as well as software as simple as word processors that has literacy and language development capabilities.

Today, many young children have access to sound, graphics, animation, and video to excite them and motivate their reading and language development.

One such way that digital play in the early years can achieve this is with non-verbal cues such as gestures, facial expressions, and body positioning. These are also the key to understanding the 'message' being communicated.

Through the use of digital storybooks animations containing gestures can have a positive impact on the understanding of the story itself.

Another way that you can use digital technology to enable a language-rich environment is to ensure that it has place in imaginative play areas. Play is such a language-rich experience and videos can be played as a backdrop, providing scenery and stimulating the children's play by setting the scene/action.

Communication technology in preschool activities can encourage young children who may be reluctant to speak to use their voices in playful ways.

Here are some strategies to promote language development in preschoolers (2015, p.41).

- Have young children verbally identify pictures on a computer screen.
- Let young children make sentences about pictures they see on technological equipment.
- After showing a story with technology, let the children tell a story that happened to them.
- Give young children the opportunity to orally verbalise sounds they hear from the computer.
- Provide young children with time to retell a story after they view it from a software program.
- Have children respond to a story by telling about the character they see on the monitor.
- Ask young children questions after they complete a software program to check comprehension.
- Let young children tell the details of a story in sequence after viewing a software program.
- Provide opportunities for young children to interact with each other while participating in technology activities.



What are some technology solutions for creating a language-rich environment?

According to Nemeth (2015) there are several solutions that you can use as an early childhood teacher to ensure that families and children are able to communicate effectively with you.

- Reach out to families before school starts and find out more about the home language, culture, interests and assets that the children will bring to your early learning environment.
- Begin with a home language survey that has been translated into the family's native language.
- Find out which mode of communication families prefer. Some teachers prefer text messages while others use email to stay in touch.
- Use technology resources such as the My Child website or Tadpoles.com to make it easier to have linguistically and culturally appropriate music, books, materials, and displays ready for the child's first day.
- If you have contacted the families before school has started, you may be able to recommend language learning apps such as the Pocoyo learning activities from the HITN Early Learning Collaborative or the Rosetta Stone Kids Lingo Word Builder app that families can use.

Key markers of a language-rich environment with technology

- Responsiveness: Does the caregiver or teacher respond when the child addresses [them]
- Positive emotion: Do [they] respond with a smile and a positive disposition
- Does the teacher have the attention of the children? [Are they] talking about things the children are interested in?
- Expansions: Is the teacher asking questions and building on the children's talk? Sustained shared thinking can play a role in this and it can involve asking open-ended and positive questions .
- Reading: Is the room filled with written material and books? Does the teacher read to the children?

(geteduca.com)

To summarise, the use of digital technology in early childhood education can enable a language-rich environment because of the many communication technologies that are available, and which continue to emerge.

Each one brings with it the opportunity to enable young children to communicate two ways and to engage with spoken language (s). This encourages children to be active participants and to gain from their experiences.

Additionally, the use of communication technology in preschool activities also provides opportunities for children to extend their vocabulary and thus ensures that these children who do have access to them will have better reading capabilities as they are exposed to a larger vocabulary such as computer terminology.

Any language-rich environment should be like the following...

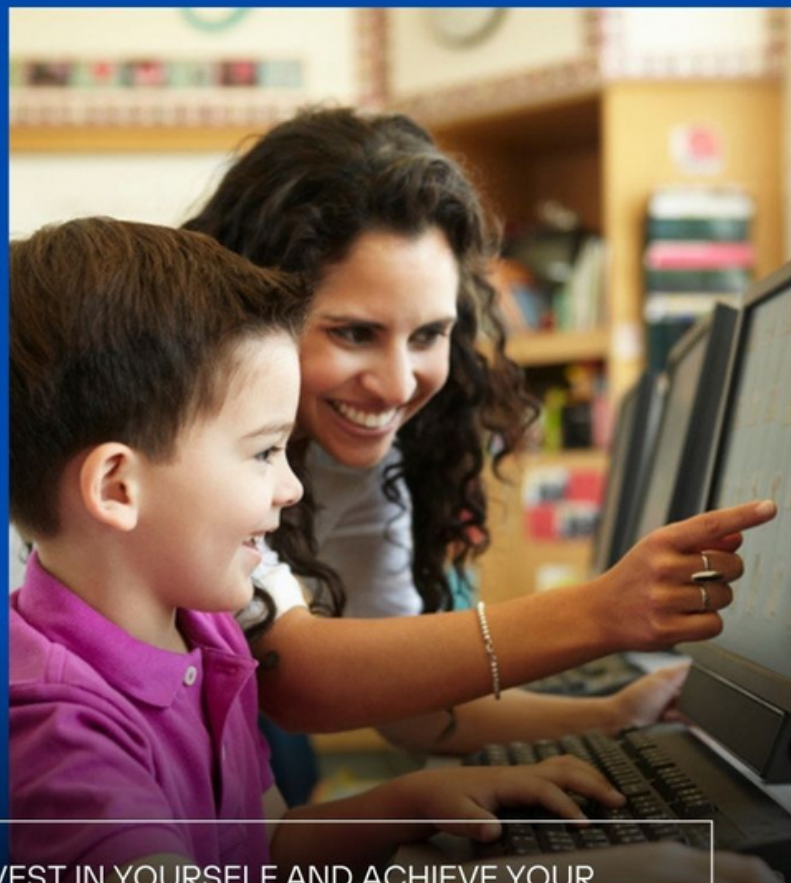
- It sounds like conversation and play and singing and reading and interacting and true listening.
- It looks like a space where learners and educators interact in all these activities in a positive, nurturing way.
- It feels like a place where children grow in confidence as their early adventures with speech are encouraged, respected and supported.

(geteduca.com)

[For more information follow this link.](#)

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