

Digital technology and computers in child care

by Tracy Morrison

Much of the current research about information technologies, including computers, is concerned with how these can be used to support children's literacies, learning environments and curriculum experiences. Earlier research was more concerned with whether or not computers were, in fact, beneficial to children's learning.

Digital technologies and computers have become an integral part of many children's daily lives. For this reason, it is important that child care professionals are not only familiar with the use of computer technologies, but are able to guide children's understanding of, and ability to use them.

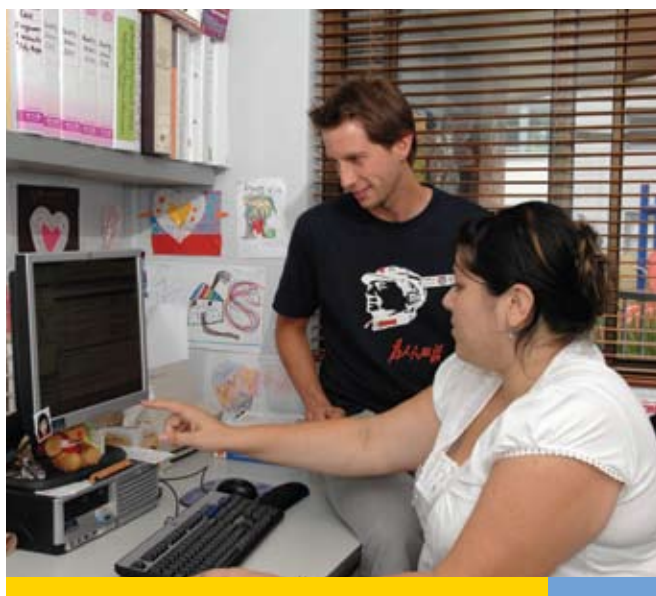
If children are to be informed and critical users of technology rather than uninformed consumers, then educators must be too (Gibbons, 2006).

Planning for children

Increasingly, children are using digital technologies to explore a diverse range of concepts and to learn about their immediate and wider community environments.

Effective computer use by children can lead to opportunities for them to:

- engage socially with peers and discuss common interests
- develop mathematical, logical and spatial concepts
- learn time management skills
- negotiate turn taking.



This article relates to:

FDCQA Principles: 3.1, 3.2, 4.2, 4.3, 5.1, 5.3, 5.4

OSHCQA Principles: 2.2, 3.1 and 3.4 - 3.7

QIAS Principles: 2.1, 3.1 - 3.3, 4.1 and 4.3 - 4.6

When child care professionals support children to use computer technology in their learning settings, it helps them to develop skills such as the use of a keyboard and basic computer software. It also assists children to build learning concepts around computer use and digital media over time. This will ultimately help children to function in learning environments where skills involving computer use are beneficial and/or necessary.

There are numerous ways computers can be used by child care professionals to support programs for the individual and group needs of children in learning environments.

Documenting programs for children

The use of computer technology to plan and document curriculum experiences and children's learning can be beneficial for child care professionals, children and families.

Recording children's learning using computers, particularly in conjunction with digital cameras and software, can allow child care professionals to easily access, update, and expand on children's learning records. Where appropriate, these records can be shared with new staff and/or relief staff and families, taking into consideration the need to respect the privacy of individual children and families.

This type of documentation can be representative of children's interests and development over time, particularly when project interests are recorded and extended upon.

Strategies for using computers and digital technologies to document children's learning include:

- using them to create and develop projects with children. These may also be shared with families and the service's community.
- using digital cameras to assist children to record their own learning experiences
- using digital records to create poster and photographic displays, learning stories and

electronic slide shows. These can also contribute to future program planning and evaluation to enhance curriculum experiences.

Communicating with families

Computers can be a valuable communication tool for sharing information with families. E-mail and personalised service web pages, for example, can be used to provide families with information about child care services and the experiences that children have while participating in learning environments.

E-mail can also be used to send families newsletters, photographs of their child's learning experiences, details of upcoming service events, including information sessions, and/or policy review documents.

Supporting children to extend their skills and interests

Research suggests that a large percentage of young children have computers in their homes and in their educational and social learning environments.

The literacies of technology, used in computers, the internet, e-mail, DVDs, CD-Roms and telecommunications take on increasing predominance in our daily lives. Children's access to and experience with these literacies in early and middle childhood will stimulate them in a variety of new social practices, brought about by technology and popular culture, in which these

Using computer technology to enhance curriculum outcomes

Computer technologies can aid many of the tasks undertaken by child care professionals to support learning experiences for children. Examples of this include:

- using computer programs as record keeping devices to keep a record of children's friendship groups and spontaneous play experiences. These records can be used in mind mapping exercises to plan for children's long term learning and development
- detailing children's development and interests using electronic journals and diary entries
- extending children's interests and researching information about topics that could be developed into learning projects
- supporting children's learning and their emerging abilities to negotiate and understand digital technologies by using developmentally appropriate and open ended software.

literacies are embedded (Jones Diaz in Makin, Jones Diaz and McLachlan, 2007).

Making computers available for children to use in child care settings is one important way to help ensure that these programs are child-centred, respect children's cultures and extend children's current and continually emerging computer skills and interests ■

References and further reading

- Boardman, M. (2007). 'I know how much this child has learned. I have proof!' Employing digital technologies for documentation processes in kindergarten. *Australian Journal of Early Childhood*, 32(3), 59-66.
- Edwards, S. (2005). The reasoning behind the scene: why do early childhood educators use computers in their classrooms? *Australian Journal of Early Childhood*, 30(4), 25-33.
- Gibbons, A. N. (2006). The politics of technology in early childhood in Aotearoa/New Zealand: fitting early childhood educators in the ICT grid. *Australian Journal of Early Childhood*, 31(4), 7-14.
- Makin, L., Jones Diaz, C., & McLachlan C. (eds). (2007). *Literacies in childhood: changing views, challenging practice* (2nd ed). Australia: Elsevier.
- Marsh, J. (ed). (2005). *Popular culture, new media and digital literacy in early childhood*. New York: Routledge.
- Morrison, T. (2008). Computers in child care. *Putting Children First*, 27, 14-16.
- Raising Children Network. *Computers: preschoolers* (by pbsparents.org). Retrieved 5 February, 2009, from http://raisingchildren.net.au/articles/computers_preschoolers.html/context/480
- Walters, K. (2006). Capture the moment: using digital photography in early childhood settings, 13(4). *Early Childhood Australia Research in Practice Series*. ACT: Early Childhood Australia.