

## **TLRP Press Release 10<sup>th</sup> May 2006: Information technology for pre-school learning**

Even quite young children often seem comfortable with computers and other information and communication technology (ICT) equipment. But a new research project shows that children may learn ineffectively when using this equipment on their own. Adult guidance is the key to successful pre-school learning with ICT.

The Interplay project, led by Dr Lydia Plowman and Dr Christine Stephen at Stirling University, found that children's encounters with ICT are at their most effective when guided by skilled professionals in the nursery. They recently presented a paper on their findings at the annual meeting of the American Educational Research Association in San Francisco, the world's biggest education research event.

Positive encounters with ICT do more than teach children about technology. They enhance children's disposition to learn and their knowledge of the world. The project shows that providing a broad range of ICTs promotes more opportunities for learning.

Dr Plowman, reader in education at Stirling, said: "Nurseries should broaden their focus from computers to other forms of ICT, like digital still and video cameras, mobile phones, and electronic keyboards and toys."

She and Dr Stephen worked with eight nurseries in Scotland to develop better ways for adults to help young children make the most of ICT. They term this support "guided interaction." But they add that nursery staff need help to provide this interaction. They should be supported by professional development that allows them to increase their own competence and share experience with their colleagues from other nurseries. Staff need to know how to guide and extend children's learning through questioning, praising and acting as a supportive presence.

The project also found that desktop computers are not ideal for small children. They are too big and immobile. They also rely on text for input and output and need fine motor control to use the mouse. The researchers extended the definition of ICT to include digital still and video cameras, mobile phones, electronic keyboards and toys that simulate technologies such as laptops and barcode readers. These can provide better support for mobility and collaborative use, are easier to integrate into play activities and are more fun to use. They are also more affordable for nurseries and they give children the opportunity to build on competences and knowledge that they may develop in the home.

Practitioners involved in the project were able to look again at existing technologies, such as the listening centre or telephones, and think about new ways of using them. They also made new purchases, including a computer microscope, a karaoke machine, disposable cameras, walkie-talkies, a dance mat and an electronic music keyboard.

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Interplay formed part of The Teaching and Learning Research Programme. The TLRP ([www.tlrp.org](http://www.tlrp.org)) is the UK's biggest-ever research programme on education at all phases of life and is the biggest research programme managed by the Economic and Social Research Council. Its budget is some £38 million from 2000 to 2011. It welcomes media inquiries about its work via Martin Ince.

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