Practical Pre-School Books

Your Guide to
Outstanding Early Childhood Practice in ICT

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Literacy in early learning

One way of looking at differences among children and their early learning is in terms of vocabulary, that is, how many words a child has learnt in a given period. Research has shown that an average one-year-old uses about five words (Snow et al., 1998)[1]. But there are one-year-olds who do not speak, and other one-year-olds who have as many as thirty words in their vocabulary. This is an educational 'gap' that typically increases as children get older, so that at age two most children use about 150 words, but some only have ten and others have as many as 450 words. At age six we know that an average child in the USA or Europe knows as many as 14,000 words, but at this stage the vocabulary gap between children is enormous and extremely difficult to compensate for.

The most significant research explaining the causes of this gap dates from 1995, when a study by Hart and Risley (1995)[2] found that professional parents spoke 72% more words to their children than working class parents. The children of professional parents also heard more than three times the number of words than children whose parents were receiving welfare benefits. They calculated that by the age of four, a typical child from a family receiving welfare benefits heard 32 million fewer words than a pre-school classmate from a professional family.

More recently, the Sutton Trust in the UK commissioned a series of vocabulary tests that were carried out by 12,500 British children at the age of five (Waldfogel & Washbrook, 2010)[3]. The study found that children from the poorest fifth of families were nearly a year behind children from middle income families in their results. They found that only 45% of the 20% poorest children ever had a bedtime story or have visited a library.[4]

Peer-to-peer play

Play is a crucial element of young children's lives. It nurtures children's creativity, imagination and provides the context within which they explore and gain their first understandings of the world. Children's playful learning can be enhanced not only through adult guidance but also in collaboration with more knowledgeable peers (Vygotsky, 1978)[1]. In sustained shared thinking (Siraj-Blatchford, 2007)[2], children work together with peers or adults in an intellectual way to solve a problem, clarify a concept, evaluate activities or extend a narrative. This chapter focuses on peer-to-peer play.
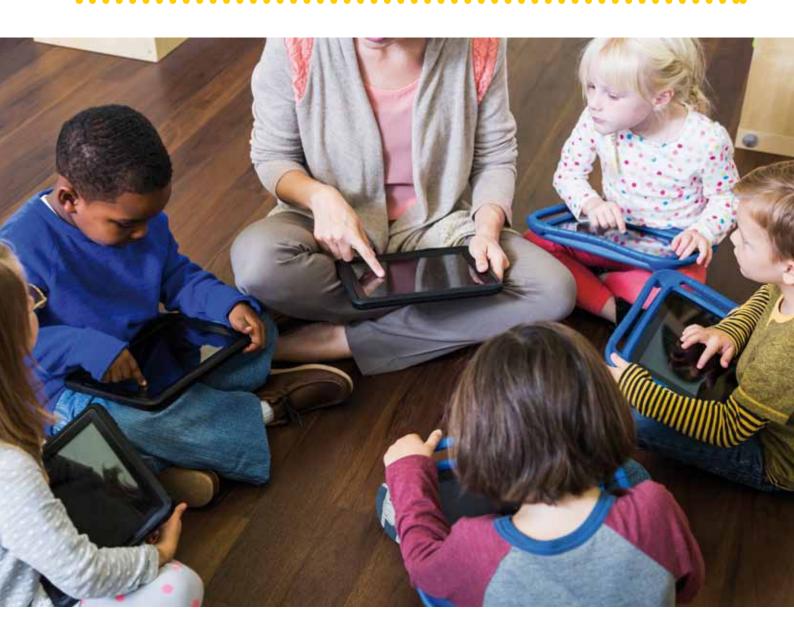
Bandura's (1977)[3] theory of learning emphasises the way in which children learn through watching other children and adults, who provide model behaviours for the child. Vygotsky's (1978)[1] sociocultural perspective shows how a more knowledgeable/capable peer can provide practical assistance, demonstrations,

explanations, questions, corrections and other interactions, to enable a child to achieve more than what they can do by themselves. In education this is referred to as 'scaffolding'.

What does the research say about peer engagement with ICT?

One of the concerns about children using ICT focuses on their becoming isolated from social interactions. However, research has shown that when used effectively, ICT can support children's social-emotional development (Clements & Sarama, 2003[4]; McCarrick & Li, 2007[5]) and encourage cooperation, collaboration and competition among children. Various types of peer collaboration through ICT have been observed in our previous research. These included: joint planning; taking

Adult-child play

Play typically offers many and varied benefits, including introducing children to new concepts, enabling them to practise adult roles, and gaining confidence and understanding of the world. Through these experiences, children learn new ideas, skills and ways to problem-solve.
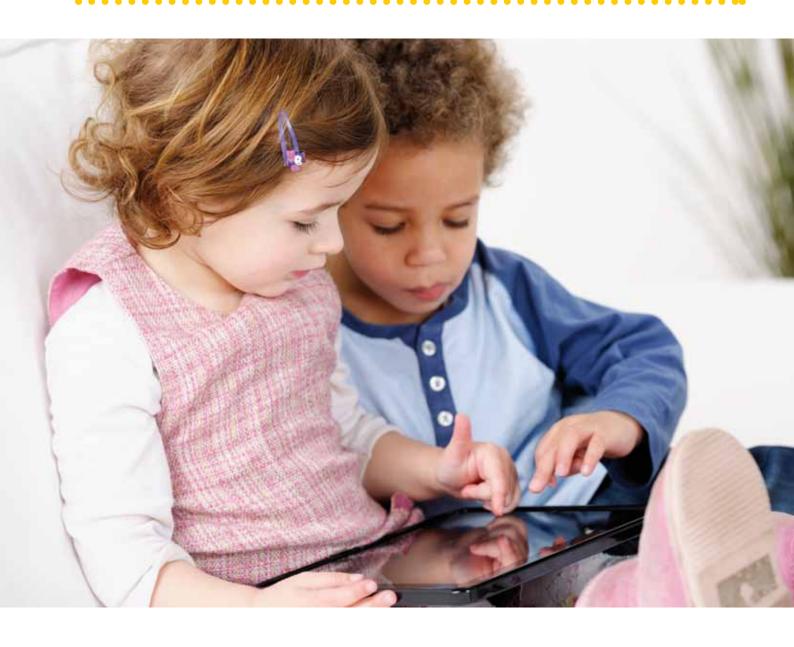
Adults can support children's learning through play by providing a range of resources that facilitate creative and active exploration, whether this is indoors or outdoors. In this chapter we will focus on adult-child play and the various ways in which adults can join children in different play activities, enhancing the children's learning experience without necessarily 'instructing' or 'taking over'.

We will also look at advice on best practice, including the benefits of active engagement with technology and parent-child co-viewing.

Parental involvement in children's play

There is a body of research that shows that parental involvement in children's activities is vital for children's learning and healthy development. In the 1980s, Seitz, Rosenbaum and Apfel[1] found that parental support at home can significantly benefit children. One of the UK's largest studies focusing on the provision of education for young children, the Effective Pre-school Provision Education (EPPE) found that the level of support parents provide at home is more important than their educational status or occupation (Melhuish et al. 2001)[2]. The study looked at 3,000 children across the UK, and this has become a key finding for parents who are keen to support children in their learning and school environment.

ICT across the curriculum

This book has been written for an international readership at the end of the first UN Decade of Education for Sustainable Development (2005-14), which has aimed to accelerate the implementation of a new vision in education. It is also a year in which the UN will launch Sustainable Development Goals, that take the place of the international Millennium Development Goals that set targets for addressing global poverty, exclusion and promoted gender equality, education, and environmental sustainability. In the circumstances, a section on ESD might be considered justified in those terms alone.

Outdoor education and ICT

A false dichotomy is drawn between ICT and outdoor and environmental education in early childhood. This is extremely misleading and we feel that the evidence really needs to be presented. Both parents and professionals have expressed concerns about the time children spend in front of a screen. In recent years, greater emphasis has rightly been placed on the importance of the outdoor learning environment for young children, and this is sometimes presented as compensation for 'toxic' influences upon early childhood that include ICT (Palmer, 2007)[1]. Yet many other parents, professionals and pre-schools are demonstrating through their practice that this is in fact a false dichotomy (Egbert, 2015)[2]. They are showing how ICT can be integrated across the curriculum to support children's development in a broad and balanced manner. Exercise is important in early childhood and children need the space and encouragement to engage in vigorous physical activity. Where excessive sedentary behaviour is identified, whether it be in front of a television or computer screen, engaging in too much