Chapter 7
Technology and the Preschooler:
As Easy as 1–2–3

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EXECUTIVE SUMMARY

More and more, schools are purposefully utilizing technology in the classroom for learning. As the technology era expands, the age of those interacting with technology seems to be shrinking. Can children in preschool benefit from the use of instructional technology? Children are highly adaptable and learn at faster rates than adults. Their brains are wired for increased synthesis of complex operations such as speech acquisition and even technology. In what way(s) would they best learn from technology? What learning behaviors could help shape preschool curriculum? Examination of how students explore, navigate, and interact with technologies provides direction for best practices in teaching.

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INTRODUCTION

Four year-old Danny knew when all of his favorite cartoons came on television. He knew how to use the remote control to find his favorite shows and could even put in a DVD and watch a movie. One day a storm caused a power failure and the lights went off. While Danny seemed to understand what happened, he was still very surprised when the TV wouldn't turn on. His understanding of electricity had a few blank areas. As a concrete learner, he was still learning to generalize. He hadn't made the connection between the failure of the electric lights to the fact that the television was electronically dependent.

Young children have unique characteristics; from language acquisition to navigating their environment. They are constantly fitting new experiences into their understanding of the world (Widmayer, 2006). Using inquiry to physically explore their world, preschool children build connect new experiences to pre-existing knowledge. As children continue to learn, the knowledge acquired during their concrete years is the foundation for subsequent learning. To assist in learning, educators are beginning to utilize technology in the preschool classroom. As the use of instructional technology with younger children continues, integrated curriculum planning is needed.

The central questions for this study were: In what way(s) do preschool children best learn to use technology? With their unique characteristics, does optimal learning occur through direct instruction or modeling? Does inquiry-based free play teach children skills? Do children learn from hands-on activities?

According to survey data from a Pew Internet Project (2009), approximately 60% of homes have broadband access and 74% of all adults use the Internet. Many children enter school with rudimentary computer skills. Understanding how children learn, adapt, and share those skills is important so that effective teaching may occur. Computer use enhances children's self-concepts through increased levels of spoken communication and cooperation, causing children to share leadership roles more frequently and develop positive attitudes toward learning (Haugland, 1992). More importantly, observing how children interact with computer technology can inform how learning is constructed, as initial computer-student interactions can be a controllable variable in how learning takes place with human-tool interactions.

LITERATURE REVIEW

Leaving the cocoon of babyhood behind, but not quite ready for the independence of elementary school, the 3-5 year old child is at a unique juncture in life. Still very egocentric, the preschool child is learning about the world quickly. Children at this