

## Chapter 95

# iPods, Internet and Apps, Oh My: Age Appropriate Technology in Early Childhood Educational Environments

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### ABSTRACT

*This chapter explores perceptions about technology and young children and includes results of a survey answered by Instructional Design and Technology (IDT) and Early Childhood Education (ECE) professionals in relation to age appropriate technology for young children. Integration of technology into early childhood programs has two major obstacles: (a) teachers' attitudes towards and beliefs about technology and (b) perceptions of what is developmentally appropriate practice (DAP) in their classrooms. The issue of what constitutes developmentally appropriate practice for young children in relation to technology in early childhood education classrooms is one that may influence technology use in educational environments. The framework for this chapter explores perceptions of early childhood and instructional technology practitioners and their views of what is and is not appropriate technology for young children.*

### INTRODUCTION

Epistemology is often almost a subliminal subconscious influence on our actions in classrooms so that we are not always aware of why we develop our classroom environments in a particular manner. The growing interest in the role of epistemic beliefs

in learning and academic achievement demands new thinking about instructional decisions in relation to technology. In particular, our beliefs about “the definition of knowledge, how knowledge is constructed, how knowledge is evaluated, where knowledge resides, and how knowing occurs” (Hofer, 2001, p. 355) need serious reflection as we are to meet the challenges of technology

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integration. Teachers' beliefs about and perceptions of technology determine what technology will be introduced into educational environments and how that technology will be used. This may be a major influence in our attitudes and use of technology. In addition there is disagreement among professionals about the use of technology with young children. The conflicting views from groups of professionals about technology can influence how we accept and use technology. In this chapter we will explore influences on our use of technology and provide recommendations from IDT and ECE professionals. Research supports that teachers develop their instructional decisions through knowledge, skills, attitudes, and values they agree are important and this influences what they nurture in their students.

The framework for this chapter incorporates perceptions between early childhood and instructional technology practitioners and their views of what is and is not appropriate technology for young children. The basis for Developmentally Appropriate Practice in early childhood settings comes from the personal interpretation of Piaget's theories of development by teachers and faculty. To understand the expectations and perceptions of what this means in technology, the chapter focuses on the perceptions of professionals from two fields to better understand how technology use for young children is perceived. Professionals work in a limited realm dependent on their field and interpretations of experiences and perceptions of development. We will share how perceptions from different fields may influence the use of technology in educational settings with young children and suggest our interpretation, as well as implications from this research on teaching and learning.

The first section will discuss some of the issues related to use and definition of age appropriate technology for young children. We will share some of the myths associated with technology and some reasons for resistance from many early childhood professionals to use technology in their class-

rooms. Next we will share results from a survey administered to early childhood and instructional design technology professionals concerning age appropriate recommendations for various types of popular technology. We will include the results in relation to some of the myths about technology use and conclude with recommended resources for teachers.

## **Objectives**

While reading this chapter the reader will:

- Explore the influences on decisions to use technology in ECE educational environments
- Reflect on the changing socio-cultural acceptance of technology in ECE educational environments
- Explore conflicting views about age appropriate technology

## **BACKGROUND: CONFLICTING VIEWS OF AGE APPROPRIATE TECHNOLOGY**

In a report titled "Fool's Gold: A Critical Look at Computers in Childhood" by the Alliance for Childhood (2000), an international group of educators, physicians, and others who are concerned about the current environment for children identify concerns about computer use with young children in general which relate to instruction and assessment. The document takes a humanist approach to technology use and support the idea that a machines-centered approach to education does not meet the developmental needs of young children. Editors Cordes and Miller (2000) take a strong stand against computer use with young children, as technology in American classrooms is regarded as a contributing factor for repetitive stress injuries, attention deficit disorder, and even obesity while diverting resources from other priorities identified

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