Chapter 11
Pedagogy and Use of Apps for Early Literacy:
Making Connections in Planned Classroom Activities

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ABSTRACT

As early childhood education professionals increasingly integrate apps into their classroom settings to support literacy development, they are challenged to effectively connect Universal Design for Learning (UDL) principles with apps and a pedagogy that leads to outcomes. The EXPECT IT-PLAN IT-TEACH IT conceptual framework for integrating apps and other 21st Century technologies into the curriculum provides guidance for making such connections. An overview of the framework and its relationship to instructional strategies and assessment is presented, coupled with descriptions of three prominent apps having UDL features and which hold potential to support literacy development. Examples of how the apps are connected to instructional methods and integration strategies are provided.

INTRODUCTION

In 21st Century classroom settings, a wide array of instructional technologies has increasingly been used to support learning activities for young children. The use of technology in early childhood education settings is now recognized as developmentally appropriate practice (National Association for the Education of Young Children and the Fred Rogers Center for Early Learning and Children's Media, 2012). Computers, digital cameras, interactive whiteboards, and many software

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programs—both free, commercially available, and Web-based—all have been recently described with regard to innovative instructional uses (cf. Parette & Blum, in press; Peurling, 2012; Shillady & Muccio, 2012). The National Association for the Education of Young Children and the Fred Rogers Center for Early Learning and Children's Media at Saint Vincent College (2012) recently noted that early childhood education professionals "select, use, integrate, and evaluate technology and interactive media tools in intentional and developmentally appropriate ways, giving careful attention to the appropriateness and the quality of the content, the child's experience, and the opportunities for co-engagement" (p. 11).

In the past few years, the popularity of personalized technologies, or applications that allow dynamic insertion and/or customization of content in varying formats relevant to individual users, has received mounting attention. Of particular importance are apps designed for use on the iPhone, iPod, and iPad (cf. Apple Corporation, 2009; Gutnick, Robb, Takeuchi, & Kotler, 2011; Shifflet, Toledo, & Mattoon, 2012; Travers & More, in press), and their popularity in 21st Century classrooms (Appit.com, 2011; Peurling, 2012; Shifflet et al., 2012; Tangient LLC, 2012). Many education professionals understand apps as being of interest and entertaining to young children, given that there are currently tens of thousands of early learning iPad apps available at the iTunes store. Many of these, in fact, almost three-fourths of currently available apps, have been developed for preschool and elementary children, with 58% targeting use with toddlers and preschoolers (Schuler, 2012).

Unfortunately, while this immense availability of apps for young children suggests potential for their use in early childhood classroom settings, there is far less understanding regarding how to *effectively* integrate them into meaningful planned classroom activities designed to support literacy development (Blum, Parette, & Travers, 2012). Thus, it seems reasonable (and best practice) that integration of educational apps in early childhood be guided by a framework, or decision-making process, suited for early childhood classrooms and young learners (Parette & Blum, in press). What is particularly exciting is that today's educational apps are flexible, dynamic, interactive, *and* shared, features that lend themselves to developing learning experiences that meet the developmental learning needs of young learners from a variety of cultural, linguistic, and economic backgrounds, as well as those who have disabilities (Parette, Blum, & Quesenberry, 2013).

UNIVERSAL DESIGN FOR LEARNING AND APPS

Given these characteristics of many of today's apps, the challenge then becomes use of an approach to meaningfully develop a curriculum that addresses the needs of as many young children as possible. One current educational approach to curriculum development for *all* young children is *Universal Design for Learning* (UDL), a decision-making blueprint designed to create curricula that is more flexible and accessible than traditionally designed curricula in the past (Rose & Meyer, 2005). UDL has been described as a framework for curriculum development enabling all children

> *. . . equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone--not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted for individual needs. (Center for Applied Special Technology [CAST], 1999-2012, para.1-2)*

Early childhood education professionals who employ UDL principles do so not simply to improve access to curricular information, but ensure *learning outcomes*. The flexibility of a UDL approach to curriculum development assumes that the education professional considers three key principles to ensure that children have optimal