# Chapter 12 Using Technology to Build Interactions Within and Beyond the Literacy Classroom

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## ABSTRACT

Becoming an educator today, specifically one who teaches literacy, requires more than a strong understanding of pedagogy and best practices. Today's educators must be equipped to survive, as well as thrive, in a 21st-century literacy classroom. New programs, websites, apps, etc. are being introduced daily, therefore, our pre-service teachers need support in order to utilize tools effectively. By providing experiences with a variety of tools, novice teachers can employ existing pedagogical frameworks for technology integration with literacy instructional tools. This study identifies how pre-service teachers perceive their skills and pedagogical decision-making for the integration of technology tools within their literacy instruction.

### INTRODUCTION

In today's 21<sup>st</sup> century classrooms, the presence of technology is constantly increasing. While many preservice teachers may be considered "digital natives," as technology has been a part of their everyday lives, these new educators may struggle to develop students' literacy engagement through and with different technology tools. Effective integration of technology for literacy requires knowledge of one's content as well as knowledge of technology tools and their role within literacy instruction. Teacher educators must model how technology can enhance and/or extend learning in the literacy classroom. One focus

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area of technology integration can involve candidates' use of technology frameworks to support their decision-making. Pre-service teachers' perceptions regarding technology integration can shed light on how to best support new teachers in using different technology tools to engage students in reading and writing about books in the classroom.

# Objectives

The objectives of this chapter are to:

- 1. Define the existing knowledge regarding pre-service teachers' experiences and perceptions of literacy technology integration.
- 2. Explain how the Technology Pedagogical Content Knowledge (TPACK) framework and the Substitution, Augmentation, Modification and Redefinition (SAMR) model support pre-service teachers' use of tools for read aloud, book discussions, and author contact.
- 3. Describe process for exposing pre-service teachers to both literacy and the pedagogy of technology, as well as, tools that promote students' text interactions.
- 4. Present research on how pre-service teachers perceive their use of the engagement tools and impact on student learning.
- 5. Identify avenues for additional research focused on how to support pre-service teachers' integration of technology tools into literacy instruction.

# BACKGROUND

In order to adequately prepare students for the literacy demands of the future, teachers are tasked with developing not only strong reading, writing, thinking, and listening skills in their students, but also preparing them to effectively use technology tools for communication. This means that both printed and electronic texts have a home in the classroom library. Discussions around books happen face-to-face, as well as, screen to screen. Ideas are shared through images, drawings, photos, and videos. Experiences with text and technology applications are both necessary for successful literacy-tech integration. In order to prepare students, new teachers must also be adept at both understanding the importance of literacy and technology experiences and applying their knowledge in order to make those meaningful technology experiences a part of the daily classroom routines.

# **Experiences with Text**

As literacy learners, students in the primary grades rely on access to books and other texts as a medium to practice the necessary skills for literacy success. This regular access to text has been shown to have a positive impact on student's achievement in literacy (Koskinen, Blum, Bisson, Phillips, Creamer, & Baker, 2000). Motivation and comprehension were both shown to be improved when students experienced book-rich environments at home and at school. In one study (Koskinen, et al., 2000) reported audio models of reading were also provided to students in both contexts. These recorded texts were notably supportive to both native English speakers and English Language Learners. Studies of book floods, which were popular in developing countries during the 20th century, identified that increased

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