

Chapter 14

The Impact of Self-Efficacy on Leveraging Technology in the Classroom

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ABSTRACT

This chapter focuses on changes that need to occur in educator preparation programs in order to improve self-efficacy in technology use in teacher candidates. The authors share the implications for the classroom for integrating the use of technology into the classroom to include safety and engagement concerns especially with regards to social media. Several technology tools are described including Flipgrid, Kahoot, Newsela, Plickers, Seesaw, and Storyline Online. Examples of their use in the classroom follows each tool's description.

INTRODUCTION

The literacy needs of today's K-12 students in classrooms are varied and great requiring K-12 teachers to differentiate more than ever before. As a result, K-12 teachers are expected to assess, diagnose, plan, and adapt to their students' needs while possessing a repertoire of skills, strategies, and methods ready at their disposal (Tomlinson, 2014). In a technology driven world, these skills, strategies, and methods include the knowledge of educational technologies, digital content, social media, and learning opportunities to meet the literacy needs of all diverse learners across the content areas (International Society for Technology in Education, 2019).

Teachers of Kindergarten through second grade are trained to understand that the focus of their literacy lessons must include a strong foundation to develop their students as readers. In Arkansas, first and second-grade students are assessed annually in literacy and other subject areas using the Iowa Test of

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Basic Skills (ITBS). This nationally standardized test compares Arkansas students to a national sample of first- and second-grade students completing the same assessment. Results are reported in percentiles, and the 50th percentile is considered the national average. Assessments of Arkansas first- and second-grade students indicate they have been scoring around the national average since 2015 which is a positive sign for kindergarten through second grade students and teachers. However, assessment scores begin to dip when students are in third grade.

Teachers know that third grade is considered a pivotal year in reading as students are moving from learning to read to reading to learn (Lesnick, Goerge, Smithgall, & Gwynne, 2010). A variety of literacy methods, skills, and strategies must be put into place in order for this shift to take place. Teachers are trained to develop lessons that include multi-sensory instruction, games, and other hands-on, interactive learning. By leveraging technology in the classroom, once students enter third grade, learning can continue to be hands-on and interactive through the integration of technology into literacy instruction. Through increasing teacher's efficacy in literacy technologies, students can be provided more diverse learning experiences that better prepare them for more advanced literacy skills in the coming years.

PROBLEM

In order to impact student instruction in contemporary K-12 literacy classrooms, changes need to occur in university and college educator preparation programs (EPPs) specifically with curriculum and instruction with preservice teachers. At the EPP level, preservice teachers can be better prepared to be strong literacy teachers with a wide range of technology tools at their disposal. The U.S. Department of Education (2016) believes it is important for EPPs to prepare preservice teachers to effectively “select, evaluate, and use appropriate technologies and resources to create experiences that advance student engagement and learning” (p.4). Therefore, it is imperative that EPPs equip and empower K-12 preservice teachers with a wide range of literacy pedagogical and technological tools and practices to prepare them to truly differentiate learning for their K-12 students (U.S. Department of Education, 2016; Darling-Hammond, 2006).

BACKGROUND LITERATURE REVIEW

Literacy

In 1990, Nolen, McCutchen, and Berninger concluded that educator preparation program (EPP) requirements and standards needed significant revision nationwide. Literacy researchers reported that K-12 teachers could not be “prepared to meet the diverse needs of students who are at-risk for reading/writing failure based on current, minimal requirements in literacy education” (Moats & Lyon, 1996, p. 76). That 1990 call for continued research has not abated, and current research continues to reinforce a focus on literacy instruction in EPPs (Binks-Cantrell, Washburn, Joshi, & Hougen, 2012; Moats, 2009).

Evidence of a lack of teacher preparedness has been further claimed by the International Literacy Association (ILA). In ILA's Preliminary Report on Teacher Preparation for Literacy Instruction, the authors clearly specified the need for increased attention to the ways preservice teachers are prepared for teaching literacy, particularly with potential relationships between program design and teacher ef-

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