

Chapter 13

iPad: Integrating Positive, Active, Digital Tools and Behaviors in Preservice Teacher Education Courses

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ABSTRACT

It is the unavoidable and it is not going away. The gravity of technology has firmly planted itself in our daily existence and yes, this includes teacher education. As technology has because our normative environment in daily life it has also become normative in educator preparation; our new oxygen. This commonplace element is hailed as a tool of equity for learners, preschool through college. Our current populations of learners are digital natives, but many educational leaders are digital tourists. As we look to challenge the traditional notions of distance learning, program offerings, and educator preparation models we must rapidly embrace the persona of the digital native to increase relationships with those we prepare as teachers while at the same time valuing and increasing diversity and voice. This chapter seeks to examine how a teacher educator engages preservice teachers in the world of diversity using technology.

INTRODUCTION

The phenomenon of education is dynamic. We must engage students in multiple domains to include the physical, psychosocial, and the intellectual. It is also the goal of the teacher to engage students keeping in mind the stages of human development; hence developmentally appropriate practice. Along with traditional pedagogical approaches, we must consider current technologies

and multiple formats to compliment student's opportunities to build and navigate their knowledge bases. These knowledge bases are culturally and linguistically mediated. This process is delicate, complicated and robust.

Educators are a part of this and must utilize every opportunity to reinforce the "content and process" approach to learning. It is the objective of this chapter to examine the challenges of engaging technology in teacher education classrooms;

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cognizant of diversity. This chapter will also identify tools that are appropriate for such a task. Finally, this chapter will provide case scenarios in which the technological tools were successfully implemented with diversity and student-centered learning at its crux.

BACKGROUND

Technology is received by its' critics as "the next new thing" with each application, product or latest version. More importantly, technology has its own unique challenges, perspectives and characteristics. Technology education has progressed through many cycles for the past 100 years and continues to develop as the principal channel for preparing children and youth in technological literacy.

Technology in Teacher Education

In order to begin examining the landscape of teacher education and technology, we must start with a national picture. Facts indicate that many programs in technology education in the past five years escalated at all levels to include elementary, middle, and high school. Among thirty-nine states, there are just 10 states that report a decline in the quantity of programs. An added national curricula trend was the integration of technology education into disciplines to include math and science. The primary impetus for technology education teachers has enlarged yet roughly; all states reported a deficiency in the preparation of new technology education teachers.

Whom are we including in the landscape? Just as with the recruitment of women, twenty-nine out of thirty-nine reporting state administrators describe that their state did not have guidelines, recruitment procedures or incentive plans for inviting minorities into technology teacher preparation programs. Ninety-seven percent of respondents corroborate that students with special needs participated in technology education in their states. All states report having their students participating

through inclusion models. Three states supplement these programs with separate technology education classes for exceptional learners. This funnels into funding structures as well.

A distinct difference subsists amid those states that continue to financially supplicate technology education and those states that did not. The very levels of funding technology education programs across states clarified what happen when the resources available are limited and problems must compete for dollars. The same funding trials influence technology teacher preparation institutions as well. Consequently, political, programmatic, state and budgetary constraints are eliminating university teacher preparation programs and creating an increased demand for new technology education teachers. The integration of technology education into other disciplines was cited as a growing curricular trend (Akmal, Oaks & Barker, 2008).

Teacher education and technology can be used to connect meaning making and learning in the electronic classroom reflections on facilitating distance-learning. The rising use of technology to meet the immense educational needs of our increasing world has led to heightened apprehension about learning experiences with educational environments that are removed from the immediate contact of instructors. Underscored are the trials linked with creating the suitable conditions for learning when transferring from the face-to-face exchanges of the regular classroom to the venue of compressed video. The implications of the professorial role as facilitator, the establishment of learning community techniques of questioning and inquiry and group collaborations are of concern.

The initial tentativeness, dissatisfaction, and perplexity concerning a constructivist approach and its expectations were coming at a distance-learning as a face-to-face course; with each succeeding class meeting, their instructor learned more about the significance of the sense of community. This was essential for the class in terms of student interaction and involvement; which are fundamental to the effectiveness of the

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