Chapter 7
Utilizing VoiceThread to Increase Teacher Candidates’ Reflection and Global Implications for Usage

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ABSTRACT
A new teaching and learning experience is emerging thanks to the emanation of a new set of Web 2.0 tools. This experience is more inclusive where students are guided through a curriculum that better adapts to their individual learning styles, encourages collaborative teamwork, and facilitates critical thinking and problem solving through a variety of communication, visualization and simulation technologies. A discussion of providing a platform for reviewing and reflecting on shared learning experiences through the use of VoiceThread and digital video recording for all levels of learners is presented. The chapter highlights the power and barriers related to the application of educational technology for teacher candidates, teacher educators, teachers and students. The author proposes that teachers can become empowered, teacher educators and teacher candidates can reflect and connect curriculum with authentic activities through the application of VoiceThread, a Web 2.0 tool that will support learning and collaborating more effectively worldwide.

INTRODUCTION
The next level of learning and teaching has come about by the rapid progression and integration of technology in a time of growing global and cultural diversity affiliation. Curriculum development is being adapted to individual learning styles, encouraging collaborative teamwork, and facilitating critical thinking and problem solving through a variety of communication, visualization, and simulation technologies. Students, teacher candidates, and teacher educators should be familiar with and build competence around technological tools used in the classroom, online and in the world around them. The technology tools should support the increasing diversity in students’ abilities, thoughts, perceptions, cultures and lived realities. By integrating technology-enhanced reflective practice into the
learning process contributes to students’ continued growth.

The purpose of this chapter is to examine and discuss the reflective practice of teacher candidates and the implementation of VoiceThread, a Web 2.0 tool and the evolution of teaching and learning on teacher preparation. The key benefits of using VoiceThread in learning environments and educational content applications are explored to gain clarity. Furthermore, it identifies the global challenges, barriers, and limitations that inhibit the application of technology and describes how to address those barriers and limitations related to teacher preparation and professional development.

Although there are constraints related to technology use, VoiceThread and other Web 2.0 tool utilization can be essential for classroom teachers, teacher candidates, and students to encapsulate learning and evidence of understanding. These tools empower teachers, teacher candidates, and students by connecting curriculum with authentic activities. Samples of teaching and student work can be presented through the use of the digital modeling strategies, by capturing experiential learning for data collection and assessment, and providing a platform for reviewing and reflecting on shared learning experiences while exploring open problem solving solutions. VoiceThread was used as a potential stimulus to strengthening assignment responses comprehensively. After seeing how the teacher candidates responded to the VoiceThread-based assignments, the author suggests that much can be learned that will assist teachers in assimilating VoiceThread and other Web 2.0 tools into their learning environment.

Additionally, there are some obstacles related to access, fundamental beliefs, and cultural implications that may impede the integration of Web 2.0 tools. Teaching from a web-based learning tools perspective suggests the necessity of examining the manner of how teachers instruct, how students learn and the cultural underpinnings. Traditional teaching focuses on increasing knowledge through the memorization of facts and the retention of this new knowledge. Some will argue that there is a disconnect between the way students live and the way they learn. In particular, educators are challenged with a new generation of students expecting a learning environment that accommodates their digital lifestyle that is global, multidisciplinary and reflective. The Partnership for 21st Century Skills, a leading advocacy organization focused on infusing 21st century skills into education endorsed helping students master core subjects and become skilled at communication, problem solving, critical thinking, global awareness, financial literacy and technology. Other constituents offered that mastering those skills means learning how to think critically and creatively, work collaboratively, use technology for research, and communicate clearly and effectively. For other educators, the integration of technology into teaching may seem complicated, particularly when current teaching or an educational policy may follow a more traditional curriculum. The use of digital technologies call forth a different manner of thinking that looks to future possibilities and a transformation that will complement teaching and provide a learning environment to access, teach, and support each student’s learning needs and potential.

BACKGROUND

All countries have established institutions and processes dedicated to the education of teacher candidates and professional for teachers; however these institutions and processes differ in their composition, goals, and regulations all around the world. The trend is to refer to the preparation of teachers as professional development because it suggests a lifelong process of learning and development rather than teacher training. The transmission-oriented model of teacher education has been supplanted by a new paradigm of teacher education that is based on constructivism that considers professional development a collabora-