Chapter 14

Teaching Pre–Service Teachers to Repurpose and Innovate Using Online and Mobile Technology Applications

Gregory Shepherd
Kean University, USA

ABSTRACT

Integrating the use of Web-based and mobile technology applications into K-12 world languages contexts requires innovative teacher preparation models. This chapter evaluates a multi-step technology integration unit that develops in pre-service teachers the skills necessary to plan and carry out learner-centered communicative instruction. Importantly, this unit also incorporates five skills for disruptive innovators. Pre-service teachers blend pedagogy, technology tools, and content in project-based learning lesson design while practicing creative-thinking skills. As student teachers learn to repurpose mobile applications for the language-learning classroom, they empower articulate digital natives and foster 21st century learning. Given technology's constant growth, teaching integration of specific apps will have limited benefits. On the other hand, teaching how to innovate and repurpose will serve student teachers for their entire career. Results of this study show growth in lesson planning, creativity, and innovation skills.

INTRODUCTION

Leadership in the classroom begins with the teacher and is reflected by the innovative and creative tools and methods she deploys in pursuit of 21st Century learning. Pre-service methodology courses provide one of the best opportunities to prepare student teachers on the effective use of technology in the classroom. Not only do methods courses support student teachers as they apply principles and theories to actual hands-on design of lesson plans, assessments, learning materials and technology integration but they also immerse students in critical and creative thinking processes. Specifically in World Languages teacher education, the opportunity to introduce creative and innovative technology strategies is particu-

larly timely since many student teachers are imagining concrete teaching tasks for the first time. Their curiosity and passion for trying new things is elevated. They benefit from the dual perspective of student and teacher simultaneously. And finally, they are immersed in second-language learning standards that focus on competencies and proficiencies more than content—doing over knowing. This study emphasizes the measurement of skills-growth in pedagogy implementation and technology assimilation. In the end, student teachers will determine to what level the digital natives of tomorrow acquire the skills to innovate, analyze and participate fully in a global world.

BACKGROUND

Since this chapter presents a model for integrating the use of web-based and mobile technology tools in World Languages instruction, a brief description will contextualize this case study. It should be mentioned that the overarching objective for this technology integration unit is teaching students to create and innovate when designing learning experiences for the classroom—not just with regard to technology tools but also across the board when it comes to instructional design. By innovation we mean the five-step process outlined by Dyer, Gregersen, and Christensen in *The Innovator's DNA: Mastering the Five Skills of Disruptive Innovators.*

Our students are well balanced between traditional undergraduates (ages 20-23) and non-traditional (ages 28-40) with over 90% being women. The course is taught during the junior year and is required for the P-12 teacher certification bachelor's degree in Spanish. The data generated for this case study reflects the two most recent iterations of these courses—one with twenty students the other with fourteen. Student teachers in these courses vary in experience from first-time teachers to teachers with as many as eight years experience in the public school classroom. The experienced students enroll in this course seeking to add the P-12 World Languages certification to their list of endorsements. This particular methodology course is also required by the state for certification in P-12 World Languages instruction. We use a modified framework based on Understanding by Design™ for activity and lesson plan design in general. UbD's "backward design" employs a three-step process wherein teachers: 1) identify desired results, 2) determine acceptable evidence, and 3) plan learning experiences and instruction in that order.

THE ROLE OF TECHNOLOGY IN LANGUAGE LEARNING

Developments in Computer-assisted language learning (CALL) and Mobile-assisted language learning (MALL) have provided language learners and language instructors complex and sophisticated technology applications meant to provide growth opportunities for language learners (Godwin-Jones 2011). The development of technology to enhance and support recent pedagogy developments in language learning has lagged causing many to claim technology is driving pedagogy (Burston 2003, p. 31). The "Old school" Grammar Translation Method and "drill and kill" drive much of the pedagogy used for software and app development in the online and mobile tech language-learning market sectors. Similar to the slow shift to 21st Century learning in textbook and materials development we now experience, there seems to exist a delay between methodology shifts in language learning leading to proficiency and their eventual adoption by software and app developers inside and outside the publishing world. Download any number of the top-rated language-learning mobile applications from your local app store

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