CHAPTER 11

USING iPADS FOR TEACHING FUTURE EDUCATORS TO INTEGRATE iPad USE IN THE CLASSROOM

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Abstract

The advent of one-to-one iPad initiatives in K-12 schools necessitates a higher education shift in how it prepares future teachers. This paper reports on teacher educators who participated in a campus-wide iPad initiative and how syllabi, assignments, and applications can motivate and inspire pre-service teachers to integrate iPad technology in instruction for their future classrooms.

Keywords: iPad, K-12, teacher training

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Introduction

All across the United States, from urban classrooms to small rural schools, teachers are being provided iPads for their students. The importance of technology-enhanced teaching for the newest generations of K-12 students, Generations Y and Z, is already being recognized, utilized, and studied by teachers, teacher education professors, and researchers, particularly for the field of literacy. Today, broadly conceived notions of literacy and literacy instruction are undergoing revolution in profound ways as new technology requires teachers to effectively exploit the potential of these new tools for teaching (Alverman, 2002; Coiro, 2003; Kinzer & Leander, 2003; Leu & Kinzer, 2000; Smolin & Lawless, 2003). As a result of this increased appetite to use technology for teaching and learning in the classroom, educators have enthusiastically embraced the iPad and its applications for K-12 and post-secondary settings.

Although college students often have a great deal of technology knowledge for personal use, they often express interest in learning how to utilize technology for instruction. Several years ago, everyone thought computers were going to be the biggest change to come forth in education, but they were too large and cost prohibitive to purchase for every student. Ultimately, the use of computers for learning was not discarded but relegated to labs for teachers to take students in small groups to use them. Along came the laptop; it was a bit more useful for singular students but again too expensive to purchase for one-to-one student adoption. Alas, the advent of the iPad in K-12 classrooms appears to be the technology tool that will revolutionize the teaching profession (Chou, Block, & Jesness, 2012). An iPad and its applications are affordable; it’s mobile, and user friendly in size, usage, and navigation.

Many schools have found the iPad to be the perfect evolution of the computer for teaching K-12 students. It has already appeared in many districts in Missouri and across the US. This begs the question, what do teacher education programs need to alter in their programs to prepare future teachers for this widespread technology use in the schools? Moreover, what do colleges and universities in general need to do to prepare for this new generation of tech-savvy students who will be coming to their campuses, expecting to use iPads for electronic content delivery? Smolin and Lawless (2003) believe that becoming literate in the technological age leads to new responsibilities for teachers and teacher educators.
Jewellverse, a Campus-Wide iPad Initiative

William Jewell College answered these questions by partnering with Apple to create a campus-wide iPad initiative in the fall of 2015. In one short year, this campus became an “Apple Distinguished School” for 2015-2017, an honor that recognizes “Jewell” for its access to integrated technology and engaged learning. The “Apple Distinguished School” designation is reserved for programs that meet the criteria for innovation, leadership, and educational excellence, as well as demonstrate a clear vision of exemplary learning environments. This announcement came a little more than a year after the launch of William Jewell College’s Jewellverse (title for its iPad initiative) when it placed an iPad Air into the hands of each student, faculty, and staff member. Jewellverse also provided a MacBook Air for faculty to prepare their content for delivery as iBooks available from iTunesU storage. This allows all course content to be available to students on their iPads.

Campus Support for Students and Faculty

Jewellverse supports the ongoing use of iPads with the eHub (engagement Hub). Its mission is to provide students, faculty, and staff with the support they need to effectively use the technology and teaching tools made available through the Jewellverse initiative. Jewellverse’s philosophy strives to achieve a higher level of success within all facets of the campus community while eHub facilitates academic innovation in teaching and learning through training, assistance, and support of creative activities involving academic programs, administrative services, and community life.

When Jewellverse was envisioned, the hope was that it would become a transformative, expanded ecosystem for open-source learning; anytime, anywhere. In reality, it has provided mobile learning for student and faculty collaborative learning opportunities. Personal attention to a variety of learning styles was carefully considered. Jewellverse has made “Jewell” an interconnected campus on a uniform platform with full integration of the living and learning environment. It is important to note this initiative formed the foundation for “Jewell” becoming a paperless campus with the adoption of iBooks access responsible for reducing the need for costly textbooks. Last, flipped classrooms (Strayer, 2012) have emerged in most departments where teachers-are-students and students-are-teachers. In this model, the majority of the content is delivered via technology outside of class meetings, so practical, authentic activities can be completed during
class meetings. Most professors accomplish this by using iBookAuthor to prepare course content for students to access on their iPads from iTunesU. Again, this kind of delivery allows professors to cover principles, facts, and terms as part of out-of-class student preparation and to utilize classroom time for the application side where students grapple with real-world problems and consider the material in context.

A Universe of Tools

Jewellverse is a universe of tools and devices including iPad Airs for the campus community and MacBook Airs for the faculty for content development. Applications, such as iWorks, iMovie, iPhoto, iBooks, GarageBand, and iBookAuthor form the foundational resources as well as discipline-specific applications that various faculty request their students use. The Jewellverse technology department provides and pushes campus-wide apps for use on every iPad. Unlimited storage and access on iCloud and iTunesU provides the location for student work and course work delivery by faculty. Creativity studios with digital editing and production capabilities have been placed in the campus learning center and are used on a daily basis by students and faculty. Nearby these studios is the eHub manned by Apple-trained students for the sole purpose of supporting student projects. Last, AppleCare tech support and instruction from Certified Apple Foundations Trainers have brought all faculty, staff, and students along in the transition to Jewellverse iPad induction through professional development trainings delivered on our campus and at their facilities.

Jewellverse Faculty Learning Community

Of course, a new initiative like Jewellverse will have its enthusiasts and skeptics. Several faculty members were chosen to become a professional learning community, Jewellverse Faculty Learning Community (JFLC) to support each other, as well as colleagues in their departments and discover more in-depth use of the iPad for college course instruction. Over time they have collectively strengthened their commitment to use iPad technology to enhance learning in their courses. As with any educational tool like the iPad, a multitude of strategies and resources are available for integrating it with teaching and learning. As a regular routine at the meetings, members of JFLC share new apps they have discovered as helpful to their students or to enhance content delivery. Although the JFLC
members are a cross-disciplinary group of professors, they find a very common ground on this committee.

**Who’s Coming to College? GenY Millennials and GenZ Digital Natives**

One the most intriguing topics JFLC studied were answers to the question: What kinds of students are headed to college in the very near future? This included reading and hearing the information on characteristics of Millennials or Generation Y, or students born from 1980-1995. GenY students have grown up in an emerging world of technology with smart phones, laptops, iPads, and wireless environments where being connected is a daily habit. Generation Z students or Digital Natives, born after 1995-present, have grown up always having computers, the World Wide Web, and are very comfortable with all kinds of technology, from laptops to iPads to smart phones. This information immediately raised the level of concern of JFLC who concluded students who will enter college in the next decade will have very different expectations, technology skills, and learning styles than the students attending college today.

To investigate what K-12 teachers are using to teach these newest generations, JFLC spent several days off-campus to visit local public and private school classrooms. The JFLC visited in the school districts that have purchased iPads or MacBooks for every student. Some were completely paperless. Students were using iPad apps to sign in for attendance, report lunch count, and in one elementary school, even create their own personal learning schedule for the day using GoogleClassroom. We observed students working on integrated projects in a high school where they were in a Creativity Studio melding poetry composition with music into a video using Garageband. One middle school principal whose school had widespread use of interactive lessons being taught in every classroom we visited, told us they had just implemented iPads six months prior. This was astonishing to everyone in the group; what we saw looked like expert use with a comfort level of long time experience by teachers, staff, and students.

Every member of JFLC returned to campus with a sense of urgency for altering their own teaching habits in preparation for the future students who are headed our way. In addition to preparing for teaching college students in a fashion they have become accustomed to in the K-12 schools, another layer emerged: the notion that Teacher Education may not be preparing future teachers to teach within a paperless, iPad environment. Many teacher education programs are re-writing and reorganizing their
programs to reflect the needs of the practices in the schools their pre-service teachers will encounter (Geist, 2011). Higher education must play multiple roles in ensuring well-prepared teacher candidates to be ready to instruct today’s 21st Century tech-savvy students.

Teacher Education Jewellverse Integration

If anyone is going to be in favor of a new educational initiative on a campus, it is teacher education. Teacher education programs are always charged with keeping current with political and educational innovation. Armed with the knowledge that proliferation of iPads in the K-12 classroom will keep accelerating, Jewellverse set the stage for change within the Department of Education. As the shift in the schools to becoming paperless has surfaced, teachers and professors have to learn how to deliver content electronically (Geist, 2011). Educators at all levels are scrambling to be level with their student technology skills to deliver up-to-date content using electronic tools and devices.

Changing student learning styles demands a better understanding of today’s students. As well, being a college that has also adopted the one-to-one iPad initiative that elementary and secondary schools are using, iPads have had an evolutionary role in shaping veteran professors’ views of teaching and learning in 21st Century Higher Education (Nguyen, Barton, & Nguyen, 2015). This has necessitated changing content delivery, modifying assignment, and integrating iPad application use for teaching, learning, and assessment in Teacher Education. With these powerful mobile devices come a lot of possible benefits for educators and students alike. One only has to look at current research to find its benefits in the K-12 classroom. A research study, conducted in a Kindergarten found students using iPads scored much higher on literacy tests than students who didn’t use the device (Bebell, Dorris, & Muir, 2012). iPad technology in the classroom can be a powerful tool for learning and comprehension (Murray & Ocese, 2011). The interactivity it provides can make for a very engaging experience, definitely for elementary school-aged children. This raises concern and the necessity for purposeful changes in syllabi assignments and assessments and most of all, course content delivery accessible via iPads.

Apps for Future Educators

In the Department of Education, professors model and use apps that local school districts use in the K-12 classrooms. The pre-service teachers are
expected to teach with iPads in their classrooms using apps like SeeSaw, Notability, Splashtop, Flashcardlet, Evernote, Webclipper, Explain Everything, QRreader, Edmodo, AudioNotebook, ClassDoJo, HaikuDeck, VoiceThread, BookCreator, and StoryCreator to name a few of the most popular ones. Use of these and others has been embedded in our teaching on campus, student syllabi assignments for each unit, and the school fieldwork assignments. When students teach lessons out in the schools, their classroom teachers mentor and model current iPad app usage. Meanwhile, back on campus, during fieldwork debriefing routines in the methods courses, the pre-service teachers bring the apps they learned to use and share them with their professors and peers.

**iPad-Supported Literacy Course**

Teacher education students often come to the study of literacy instruction with an entitled notion that they can teach it because they are literate. Research (Alderman, Klein, Seeley, & Sanders, 1992; DeBruin-Parecki, Perkinson, & Ferderer, 2000; Tyner & Green, 2009) shows we cannot understand how to teach children to read and write until we critically examine the ways we, ourselves learned to read. And, to place a good quality literacy teacher in every classroom who is knowledgeable in literacy development should be the goal of every teacher education program. Thus, striving to intentionally prepare good quality literacy teachers, teacher education students complete three assignments to understand how literacy begins and is perpetuated throughout a student’s education.

**iPad Assignments**

Emergent Literacy I begins with a “Literacy Timeline” creation. Students are tasked with creating a timeline of their literacy past. They create and fill in a chart with memories for each age group: Preschool, Lower Grades Elementary School, Upper Grades Elementary School, Middle School, High School, and College. There are two columns, one for memories at school and one at home. Students are also asked to write in positive and negative memories. Most have to call their parents to fill in some of the blanks. When they are finished, they are asked to write a script of what they remember most with each age group using a personal vignette. Finally, they download the SeeSaw app, take a photo of their timelines in the app, and record their script. It is submitted to me for grading and sharing in class. When the class listens to various vignettes, something
interesting happens, they bond over the real victories and challenges they all had while becoming literate. Memories by one student summon similar memories in others. And at the end of the week, they have seen modeled, used, and viewed a very important and widely utilized app for K-12 classrooms.

The second assignment is to collect digital artifacts of their literacy development so they can reflect on how they became literate. They are asked to complete a Literacy Autobiography iBook Planner. It asks them to determine and collect 10 “digital” artifacts that represent significant elements of their own literacy development. They place these in their camera roll on their iPads. The categories include: 1) Earliest memories about learning to read/write/speak/listen (Literacy Autobiography); 2) Reading for different purposes; 3) Writing for different purposes; 4) Favorite children’s book; 5) Significant literacy role model(s) in your own experience; 6) Speaking for different purposes; 7) Listening for different purposes; 8) Viewing or visual representation; 9) Choice Artifact; 10) Choice Artifact. Next they compose and draft a reflection on why they chose a particular artifact and how it reflects their literacy self. This is sometimes implicitly inferred stated other times explicitly stated.

In the third assignment, these artifacts serve as catalysts for rich reflection on the successes and struggles of learning to read and write, illuminating for these future teachers what it is like for children as they labor to become literate. After the process of reflecting, they learn to author iBooks to create Literacy Autobiographies. They insert their digital artifacts and add their reflections. Some create their books in an app called BookCreator and record their literacy story. This application serves a dual purpose as it illustrates for pre-service teachers how children can compose iBooks on an iPad.

Students in college now, GenX, are relatively new to iPads so they struggled a bit with the navigation and creation, but ultimately, succeeded in composing an iBook with photos and reflections of their personal literacy development. They take this idea as a lesson plan out into their fieldwork classrooms and reflect on how easily children learned how to use the BookCreator app with no apprehension. They have wonderful success teaching this same assignment to children, so it fuels a desire to find other apps that will enhance their lesson plans. After completing the iBook Literacy Autobiographies themselves and then teaching lessons where elementary children compose one, their interest in becoming teachers using iPads in the classroom for literacy instruction increases.
Conclusion

In the unique context of Jewellverse, a campus-wide iPad initiative and framework for preparing and integrating iPads for content and coursework assignments, teacher education can and should shift away from the teacher education traditions and practices of the past. This not only will benefit college students who come to campus expecting to utilize technology tools like iPads for learning but for the future students they will go out into the schools and teach. It is a sensible and necessary approach to encourage pre-service teachers to design meaningful lessons that integrate iPad technology and applications that will facilitate learning for their students. Koehler and Mishra (2009) assert “There is ‘no one best way’ to integrate technology” (p. 62) necessitating Teacher Educators provide assignments in their courses that require pre-service teachers to seek and practice multiple ways to utilize iPads.
References


