

iPads and Educational Leadership

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Master of Arts

by

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iPads and Educational Leadership

In the last decade, there have been many breakthroughs in education, including Response to Instruction and Intervention (RTI²) and Professional Learning Communities (PLC). On the forefront of this revolution is mobile technology. In particular, Apple has been revolutionary with integrating its iPad into education, ranging from uses in early childhood development to higher education. Indeed, Apple claims that using the iPad engages students in new and exciting ways, and connects them with the curriculum like never before (NewsRx, 2012, p.1).

Peluso (2012) reminds us that many young learners have and use iOS devices (iPods, iPhones, and iPads that run on Apple's Unix-like operating system), and integrate social media and communication into every aspect of their lives. A common assumption of educators is that a mobile device would be a distraction in class. Geist (2011) compares an unwillingness to move forward with technology to the fear of moving away from the agrarian one-room schoolhouse 100 years ago. Moreover, Gawelek (2011) reminds us that today's learners interact with the world in a completely different way than previous generations. They experience the World Wide Web, social media, and entertainment technologies such as film, music, and games as consistent and constant components of their everyday experience. They share their thoughts, feelings, and ideas with family and friends electronically, and they have adapted to instantaneous information retrieval and communication.

If the shift in education is to assimilate mobile technology, then it is imperative that school leaders are proficient with devices such as the iPad. However, iPads are not cheap; a simple wi-fi tablet costs \$500. In addition to hardware expenses, many applications (apps) that would enhance student learning are priced anywhere between one to ten dollars. One way to

offset the initial overhead involving the implementation of an iPad initiative would be through grant funding. Through the Project Vista Grant, California State University Channel Islands (CI) has implemented such measures. Twelve Educational Leadership Master students received an iPad in the fall of 2012. This paper investigates how they were utilized in their coursework and fieldwork. Ultimately, future candidates of the Masters and Credential Program will be prepared in integrating the iPad as a school leader. Components of the iPad initiative included familiarizing and supporting stakeholders with the technology, remediating software and licensing issues, incorporating technology into the higher learning classroom, and utilizing the iPad for assignments and fieldwork.

Definition of terms

Airport Express	a wireless product by Apple. Similar to a wireless router
Airplay	a protocol by Apple that allows wireless streaming of media
Apps	application software, or mobile application
Apple TV	a digital media receiver made by Apple
iPad	a line of tablet computer developed by Apple
iTunes	a media player and media library application by Apple
iTunes U	a service used to create, manage, distribute, and control educational content created by Apple
iOS	a mobile operating system developed by Apple
mobile	a portable communication device
Social Media	means of interactions among people in which they create, share, and exchange information and ideas in virtual communities and networks.

Review of the Literature

Background

Within a few weeks of the introduction of the iPad, over three million units were sold. Since then, Apple has unveiled two more generations of the iPad, as well as the iPad mini. Indeed, Lopresti (2012) recalls that it was the late Steve Jobs' vision to have an iPad in the hands of every school-age child in the country. True to his goal, Apple has created apps such as iBooks/iBooks Author, iTunes U, and a host of others conducive to learning. In addition to hardware and software development, Apple has also partnered with three prominent publishing corporations. In a press event last year in New York City, Apple announced its goal to reinvent the textbook with a striking visual of an overloaded backpack (Lopresti, 2012 p. 1).

Besides overhauling current practices with textbooks, iPads can also be used to transform literacy instruction. New technologies are changing the way educators think about education and literacy. Biancarosa and Snow (2006) reported, "Literacy demands have increased and changed as the technological capabilities of our society have expanded and been made widely available; concomitantly, the need for flexible, self-regulated individuals who can respond to rapidly changing contexts has also increased" (p.9). Larson (2010) points out that digital reading offers students the ability to change font size, highlight, take notes, and it offers dictionary usage and text-to-speech features. This alone can motivate and influence a student's reading success (Schunk, 2001). Thoermer (2012) offers innovative ways to use the iPad in literacy centers that utilize such apps Storyline Online. A fifth grade teacher used the iPad in an intervention program for a struggling reader with Attention Deficit Disorder (ADD). Not only did the iPad

help him focus, it also improved his metacognitive skills. Within a six week time period his reading improved one whole grade level (McClanahan 2012).

The U.S. Department of Education has provided a national educational technology plan (2010), titled *Transforming American Education: Learning Powered by Technology*. In this plan, the learning goal states that all learners will have engaging and empowering learning experiences both in and out of school that prepare them to be active, creative, knowledgeable, and ethical participants in our globally networked society (U.S. Department of Education 2010). The tablet computer's strength lies within its portability and networking capabilities. Through communication and social networking apps, the iPad promotes a global atmosphere for learning. A second goal pertains to teaching. It directs educators to be supported individually and in teams by technology that connects them to data, content, resources, expertise, and learning experiences that can empower and inspire them to provide more effective teaching for all learners (U.S. Department of Education 2010).

The iPad promotes collaboration, and access to the World Wide Web is literally at educators' fingertips when it is connected to a network. This creates a challenge with aging infrastructure and bureaucracies that do not condone wi-fi connections in P-12 education. This presents a third goal of the plan. The productivity goal calls for the system redesign processes and structures to take advantage of the power of technology to improve learning outcomes while making more efficient use of time, money, and staff (U.S. Department of Education 2010).

Pilgrim (2012) argues that the authors of this plan recommend applying the advanced technologies for personal and professional use to instruction and pedagogy to improve student learning. A counterpoint is that educators are struggling to keep pace with the speed of technological development and demand (Samuels & Farstrup, 2011). Regalski (2006) reminds

us that progressive society is asking today's educational curriculum and teachers to engage in the role of preparing young people for the escalating expectations and demands of the globalized workplace. Truly, Common Core State Standards (CCSS) call for students to be college and career ready. CCSS standards, in their goal for college and career readiness, call for students to conduct research projects and gather multiple print and digital resources

(<http://www.cde.ca.gov/re/cc/>). The iPad is the perfect medium to perform such tasks. John Dewey (1944 p.167) can be quoted as saying "If we teach today's students as we taught yesterday's, we rob them of tomorrow."

Counterpoint

Peluso (2012) suggests that some teachers do not have the background or knowledge to effectively incorporate technology into their classroom, yet they attempt to do so anyhow. She says that such actions are a bandwagon effect of current trends that follow buzzwords like "innovative learning" and "engagement." Still, others are concerned with the propensity for distractions such as texting or playing non-educational video games. However, digital media and video games have been praised on many occasions as the perfect future method to completely transform the educational environment (Gee, 2003; Kenny & McDaniel, 2011). Pilgrim (2012) argues that these new technologies promote literacy in today's technological world, improve mobility and access to curriculum, promote communication and collaboration, and provide a myriad of resources for the classroom. Content-specific apps are available for students of all ages. Often teachers can control parameters to focus on specific skills or ability levels and monitor student progress. The engaging apps make drill and practice more fun for learners, and the immediate feedback is beneficial for student learning.

Higher Education

If the iPad has such potential in a K-12 setting, what are the possibilities for higher education? A research project by Ian J. Shepherd and Brent Reeves tracked 50 students in an undergraduate Microeconomics course. Specifically, they presented the challenge of making the course go "paperless". The program incorporated the use of an online textbook and apps such as Blackboard, Keynote, and Responseware. The authors acknowledged a few drawbacks of the initiative. First, one setback was inexperience of some students with iPad apps. Another issue was compatibility of PC programs, documents, and files to the platform of the iOS devices. Once usage and technological issues were addressed, the program was successful, and many students enjoyed the mobility of the class. For some it was apparent that the transition from paper to electronic format meant little. A student who did not study in a traditional classroom would also not study in a mobile classroom (Shepherd and Reeves 2012). Mang and Warldey (2012) recommend students remain academically engaged with an iPad on a regular basis with activities such as taking notes and conducting research. Their findings also suggest that students with tablets were less distracted messaging, social networking, and watching videos than their peers with laptops.

Wong (2012) suggests that in order for a higher education institution to successfully implement mobile technology, there needs to be faculty buy-in, a strong professional development program, and an adequate infrastructure that includes a strong wireless network with high bandwidth. One advantage of the iPad versus other tablet PC's is iTunes U. Apple has created iTunes U to enable professors to offer entire courses, not just lectures, in one app. Indeed, Cooper (2012) reminds us that iTunes U can accommodate lectures, assignments, books,

quizzes, and syllabi and that lectures and other content have been downloaded 700 million times from institutions such as Stanford and Harvard.

Teacher Education

If the means for the iPad in higher education are available, then how can a teacher education program benefit from mobile technology? Wakefield and Smith explored how both students and faculty can integrate mobile technology into a teacher preparation course. Their findings supported other research; the use of the iPad fostered better communication and collaboration than a controlled group. In addition, perceptions of the professors were that the students with the iPads demonstrated more systematic skills in their approaches to problem-solving, collaborative learning, and finding critical information on the internet (Wakefield and Smith (2012). The International Society for Technology in Education (ISTE) has created National Education Technology Standards (NETS) for both teachers, *NETS*T*, and students, *NETS*S*. *NETS*T* Standard 1.b. calls for students to be engaged in exploring real-world issues and authentic problem solving use digital tools and resources. This is in alignment with CCSS's, and the iPad is an ideal device to address these standards. The wording of *NETS*T* is for teachers to model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments. A teacher can tackle these standards with the iPad with apps such as Facetime and Skype, coupled with social media apps such as Google +, Edmodo, and Dingo. The six *NETS*S* for students dovetails with the *NET*S* for teachers, and again, I argue the iPad is an ideal platform to execute these standards.

School Leaders

The literature suggests that iPads on both a K-12 and higher education setting are the wave of the future. One question remains. How could a school leader utilize the features and apps of an iPad? The Times Educational Supplement published an article in February 2011 that highlighted apps to help school leaders access data such as timetables, attendance, behavior, and medical details, even when a network is down. Indeed, research shows that iPads not only facilitate mundane administrative tasks (memos, calendars, etc.), but can also improve a principal's duties such as teacher evaluation (Winslow, Dickerson, Lee, and Geer p.193). Otto and Albion (2002) remind us that a principal's attitude and actions toward technology serve a role with utilization of technology in schools. In fact, Dawson and Rakes (2003) present a positive relationship between a technological savvy principal and the amount of technology used in school. Clearly, now more than ever, students, teachers, administrators, school district leaders, and teacher education programs must work together to prepare students to live and work in a digital age.

Process/ Product

Introduction

In the Spring of 2012, CSUCI faculty developed the iPad Initiative. The iPad Initiative was funded by Project Vista, which is a Federal Title V Grant designated by the United States Department of Education under the Promoting Post baccalaureate Opportunities for Hispanic Americans (PPOHA). The iPad Initiative facilitates the achievement of two of Project Vista's objectives. Objective three is designed to enhance faculty development related to graduate success and research. The iPad, and apps such as iTunes U, Safari, Blackboard, and Keynote, are very supportive of such activities. Objective four is worded to promote affordability and

access through financial aid and distance learning. An iPad can cost as much as \$929, which by no means is inexpensive. The grant allows graduate students and faculty the use of an iPad without their own personal investment. Since the iPad functions as a personal and mobile device, access to curriculum, research, and communication is vastly enhanced. Again, its applications promote collaboration and are an excellent medium for distance learning.

Consequently, the iPad Initiative was presented to Educational Leadership Masters students during the late summer of 2012. The purpose was to investigate how the iPad could be used in the Master of Arts in Education: Educational Leadership Program at California State University Channel Islands. Six goals were outlined as objectives of the initiative. They are as follows:

- 1) Recognize the importance of school leaders (teachers and administrators) embracing the possibilities of enhancing learning through the use of technology.
- 2) Experience the power and possibility of technology in the learning environment of graduate education.
- 3) Explore the use of technology in supporting the work responsibilities of school leaders.
- 4) Explore the path school leaders can take to become leaders in the use of technology and why this is important in building a strong school community focused on student learning.
- 5) Experience a personal learning network focused on the effective use of technology to increase the access to resources and support for their effective use.
- 6) Recognize how through the integration of technology instructional leaders are able to provide more powerful learning experiences for teachers and students.

In addition to the aforementioned objectives, members of cohort VIII were given the opportunity to designate the iPad Initiative as the Culminating Project for their Masters degree. The following narrative will highlight the experience of a candidate who took on this project.

Narrative

When the iPad Initiative was first introduced to my cohort, I knew it was perfect for me. I have been using an iPad in my fifth grade general education classroom since the first model was introduced in 2010, and it transformed how I did my job. I was able to bring lessons to another level with it, and I certainly realized the first goal of the iPad Initiative. I also used it for my university coursework. Needless to say, the evening we were presented with the initiative I wrote a statement of interest to Dr. Conrad “Tim” Rummel, Coordinator of the Educational Leadership Program at CI.

First Steps

Shortly after I received confirmation on moving forward with the project, I met with Dr. Rummel and Dr. Kaia Tollefson, Associate Professor at CSUCI and author of the Project Vista Grant. We discussed some logistics of the program. First, there was the matter of the cohort members who had a personal iPad or had one from their professional assignment. It was decided that they would retain that one. One of the positive attributes of the iPad is that it is a personal mobile device, and it should integrate personal and professional technologies. It would be counterintuitive to have one iPad for a university program and a second for other uses. A disadvantage of obtaining the iPads on a grant was that they would have to be returned to the

university at the completion of the program. Those that have one from other means would be able to continue to enjoy their iOS device.

Progressive Planning

Next, I drew on my experience with apps that I found useful for my own iPad. Although the iPad comes pre-loaded with a variety of programs, it would be beneficial to have some on the iPad that would enable users to maximize its potential. For example, Apple has a suite that includes word processing (Pages), slideshow-presenting (Keynote), and a spreadsheet program (Numbers). In addition, there is also video editing (iMovie) and photo editing (iPhoto) apps that would enhance fieldwork. I have these on my own device and use them on a regular basis. In my opinion, they enable the iPad to function as adequately as a laptop or netbook with even more mobility and personalization. The three latter apps cost \$9.99 each, and the two former are \$4.99. That overhead would be unreasonable to ask a working graduate student to absorb. This led to our next dilemma: licensing and accounts. An iPad syncs to iTunes, and one could download all of their music, photos, applications, etc. to the iOS device. If a candidate had an iPhone or iPod, they would easily be able to perform such an action. However, if they did not have an iTunes account they would have to create one and move forward from there. At this point I realized I was beyond my expertise with Apple products, so Dr. Rummel recommended we contact Chris Mattia, Director of Academic Technology. Chris informed us that we had two options. The first was to purchase the apps with an iTunes gift card through the grant. Then members could purchase the needed apps and sync with their own iTunes accounts. The second option was to sync with iPad with an account from the University, which would limit what the cohort could do with it. Shortly after, we learned from Dr. Tollefson that we would not be able to purchase an

iTunes gift card from the Project Vista grant. Wording of the grant forbids monetary compensation, which is what a gift card is classified as.

Problem Solving

That was our first obstacle with moving forward. We consulted IT on possible ways to remediate the account issues. Through joint efforts and problem solving, it was decided to purchase the apps through the education department. To do this, an administrator signed in to the iPad and purchased the apps through the university's account. Once logged in, the needed files were loaded. Another task performed at this time was applying a screen protector and protective folio-style case.

Now that the iPads were ready to be distributed to the cohort, I pulled from my classroom experience on ways the iPad could be utilized during our class sessions. In my own classroom, I had an Apple TV and wireless router. This enabled me to mirror my iPad screen to an LCD projector via Airplay. In my opinion this was by far one of the greatest functions of my iPad, as whatever I had on the screen I could project in front of my class. I made my request for the purchase of an Apple TV and wireless router from Dr. Rummel. I felt this would help us reach the second goal of the initiative: experience the power and possibility of technology in the learning environment of graduate education. Once again, we consulted Chris Mattia. He recommended that we use an Airport Express along with the Apple TV. Apparently the two function best when paired together. The Airport Express was needed to create our own network in the classroom. Chris explained this was necessary to secure the connection between our devices and the projector. Otherwise, anyone in the vicinity would have the ability to display something in our classroom. He also suggested we buy an adapter that can send the HDMI

output of an Apple TV to inputs for VGA and 1.5mm audio jack (the interface in most classrooms for students to connect their laptops to the projector). I envisioned our cohort sharing Keynote presentations, web pages, and other multi-media projects on the large screen in our classroom. However, Chris brought up a good point. How could we secure an Apple TV and Airport Express? Many entities have access to that classroom, and both the devices are small, and well, "tempting." He recommended we keep them in a go-bag and have them on reserve in the library. He also suggested we secure the same classroom for our three remaining courses, which Dr. Rummel was able to do.

iPad Deployment

Soon after that, classes began and we distributed the iPads to members of the cohort by signing out a labeled iPad to each cohort member who did not have their own device. It brought me joy to see people turn them on and explore the iPad for the first time. Once a brief exploratory session transpired, I gave an orientation demonstration for the iOS device. The first thing I did was talk about basic care and usage. We discussed things like temperature, liquids, buttons, and simple functions of the iPad. Candidates were allowed time to explore and share what they found. During the following class meetings I helped people with their iPads, mainly addressing questions with settings and syncing their computers to the devices. Occasionally a professor wanted a webpage, YouTube video, or slideshow presentation for the class, and they requested that I use my iPad to do so. Since we were waiting for delivery of the Apple TV, I used a 30-pin to VGA adapter and CI's laptop dongle to access the projector.

More setbacks

Shortly thereafter, I learned about the bureaucracy of purchasing items through a higher education institution. You can't just go to Best Buy, buy an Apple TV on your credit card, and turn in the receipt for reimbursement. Once I made the request to obtain those items, it went through (department A) to (department B), then on to (C), and finally to (D). About two months later, we finally had the items needed to mirror the iPad to the projector.

During the waiting period for the Apple TV and other items, Apple released a new version of its operating system and updated some of the apps that were loaded using the university's account. Although cohort members could update the iOS, they could not update the apps as they were loaded on the iPad under a different account. Pages, Keynote, and Numbers would not open without these updates, but since they were purchased with CI's iTunes account, cohort members could not perform that task. Through problem solving with Omar Hernandez at CI's IT helpdesk, we figured out a solution. We were aided by Wendy Olsen; Project Vista Coordinator, and Angelica Gonzalez; Administrative Support Assistant, with updating the software. They collected the iPads during our class time, logged them out of the personal iTunes accounts, logged in under the university settings, and made the appropriate updates.

Ready to implement, but....

Finally, the Apple TV and other items arrived. Once again, Chris assisted us by creating a Virtual Private Network (VPN) with the Airport Express that would access the university's Internet connection. Next, he synced the Airport Express to the Apple TV and established a secure connection between the two. Finally, we were able to mirror the iPad to the projector. The only problem was there were only two weeks left in the semester. Shortly after, the term

ended and we went on break. While on break I was able to reflect and do some research on technology and education. First, I realized that I could not have gotten to the point I was without a network. Through Dr. Rummel, I was able to receive support from people like Chris Mattia, Omar Hernandez, and Wendy Olsen. The iPad Initiative would not have been able to happen without them. Secondly, I explored the use of social media. Google+ and Diigo were two particular platforms that would allow teachers to network and share their experiences with technology. My friend and colleague, Dustin Ellis, was just starting a Masters program in technology and education. He shared resources on technology and pedagogy. Tomorrow's teachers need to be adept in both. Needless to say you cannot implement technology and education without support and networking, which brings to mind the fifth goal of the initiative: experience a personal learning network focused on the effective use of technology to increase the access to resources and support for their effective use.

As Winter Break concluded I contacted the two professors for our final class in the spring term. It was my intention to meet with them and assist with how we can use the iPads in their course. However, they already had all their needed files like their syllabus printed. I also encouraged classmates to use their iPads for their fieldwork and coursework. For an assignment in which I had to do a classroom observation, I used the iPad to take notes and pictures of the classroom setting. I realized the potential the iPad had for a school leader. This small, portable device could be used for classroom observations and teacher evaluation. I was able to embed photos into the document, which made it come alive. Wouldn't that bring an administrator's work to a whole new level? This brought to mind the third and sixth goals of the initiative: explore the use of technology in supporting the work responsibilities of school leaders and recognize how through the integration of technology instructional leaders are able to provide

more powerful learning experiences for teachers and students. The professors were very supportive with the iPad Initiative and would use our setup to display slideshows, PDF documents, and movie clips. Besides myself, only one other member of the cohort used the iPad and Apple TV to present an assignment to the class. The next section of this paper will include an action plan for the implementation of an iPad initiative that will be in place from the beginning to the end of a cohort.

Action Plan

As the literature suggests, the iPad is an ideal device in a higher education program for future school leaders. Wong (2012) argues that the iPad is the best choice for an initiative because they offer more features and provide more opportunities for innovation. He also states, "Successful implementation depends on each faculty member and whether educators spend the time and effort needed to effectively integrate the technology." (Wong 2012) For this reason, faculty should receive adequate training and support. Obviously, instructors should become competent with using the iOS device, and support should be given for such an action. Currently, CSUCI uses Blackboard, and there is a Blackboard app for the iPad. A study in Australia (Kinash 2012) that followed the use of Blackboard Mobile demonstrates how students can access Blackboard Mobile Learn using their existing login credentials to access their course homepage, post discussion forums, submit assignments, and participate in all other functions of Blackboard while using their mobile devices. The research concluded favorable experiences with Blackboard. However, only three of the cohort professors currently use Blackboard.

In addition to Blackboard, professors also have access to iTunes U. An article by Education Business Weekly (2012) informs us that students can read books, view presentations,

lectures, and assignments via iTunes U. They can even receive push notifications on the latest class information. Therefore, I propose faculty also receive support for Blackboard and iTunes U before the first class meeting occurs.

Wong (2012) also argues that the iPad promotes increased collaboration. Whereas Masters Candidates will be given plenty of opportunity to work together, one wonders how instructors would also benefit from this. As the iPad grows in popularity, more and more textbooks will be offered in the appropriate format. However, there are many options currently available. I was able to purchase multiple course materials through Amazon.com and the Kindle app on my iPad. The campus bookstore has other options as well; platforms such as CafeScribe, Inkling, and Pageburst are options that faculty could use to find textbooks and suggested readings that would be compatible with the iPad. The faculty should work together to revise their course materials. Finally, faculty should receive support on ways to have their assignments integrated with the iPad and selected apps purchased with this initiative.

Suggestion for CSUCI

Who	When	What	Details
Education Department Chair	Before term scheduling	secure classroom; Broome Library 1350	needed for the use of the Apple TV/Airport Express
Academic Technology; Cohort Faculty	Before first term	Support; collaboration	Use of iPad, Blackboard; iTunes U; Digital textbook and assessment options; integrating iPad and assignments; going "paperless"
Academic Technology; program director	Beginning of term	Designate two candidates for iPad support and Apple TV setup (see appendix E)	Two students with experience in iPad will provide iOS support; check out/return/ setup Apple TV equipment

			throughout program. AT will guide Apple TV procedure
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The above table provides the institution with recommendations for the iPad Initiative. First, the Education Department Chair should secure Broome Library 1350 as the classroom for all of the courses. This is necessary for the use of the Apple TV. The close proximity of the IT help desk could also be beneficial. Next, Academic Technology and faculty should meet to become more proficient with the use of the iPad. Support for Blackboard and iTunes U should also be provided. Faculty should consider the digital textbook options from iBooks, Amazon, or Cove Bookstore options. Faculty should collaborate on ways to integrate the iPad into their course, and they should brainstorm solutions for going paperless. Finally, once the term starts two candidates should be recommended to support their peers with the iPad. They would also be the ones designated to check out the Apple TV equipment from the reserve desk in the library. These two will be responsible for setting up the equipment and returning it after each class meeting.

Course Outline

- First meeting distribute iPads. Provide brief orientation and training.
- Professors email or post course documents on Blackboard
- Books purchased through bookstore, iBooks, or Kindle app
- Apple TV kit checked out and returned every session.
- Assignments, presentations, and other coursework completed on iPad
- Assessments done with iPad

- iPad used during fieldwork when possible
- Turn in iPads before culmination

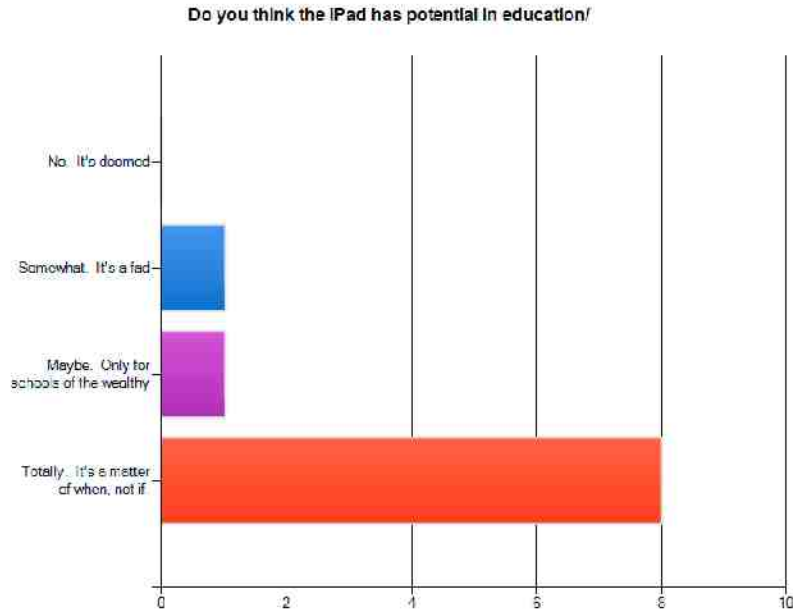
To facilitate the iPad Initiative, the devices should be distributed during the first meeting of the cohort. During this time an initial training session should occur. As each term commences, professors should post syllabi and other documents on Blackboard or iTunes U, and students should purchase texts through a digital path. All assignments and assessments should be completed with the iPads as much as possible. iPads should also be used for any class multi-media presentations using the Apple TV. The cohort was presented a survey question that asked how the iPad would benefit an Educational Leadership Program. Candidates' responses included presentations, research, and replacing print textbooks. One response made a specific comment on collaboration and sharing information.

The iPads should also be used during fieldwork and work experience as much as possible. For example, if a candidate is on School Site Council, Student Study Team, or other governing body, he or she could use the iPad to take notes. This fulfills NETS*T standard 5 (see appendix B). They could also utilize the camera and iPhoto to record images of their experiences. If this action is taken, candidates should review and consider privacy policies from school districts where the fieldwork occurred. A free app called Turboscan uses the camera and converts a picture to a PDF. This could assist with documentation of fieldwork experiences. A candidate who is in a classroom setting as their profession should use their iPad as well to assist their pedagogy.

An iPad can be used in a classroom on a daily basis. First, if a wi-fi connection is present, the browser could be used to access the school network. Most districts use web-based management software such as Zangle or Aeries for attendance, report cards, and other data. As

long as they are not based on Flash, they will function on the iPad. Consider how one could take informal assessments while walking through their class with an iPad in hand. Many lessons can be delivered as a slide show presentation, and a unique function of Keynote is when one touches and holds their finger on the screen, a laser pointer appears on the projected image. There is even an app for the iPhone called Keynote Remote that controls the Keynote presentation through a wireless or Bluetooth connection. A teacher can circulate through the room and control their slideshow with a tap of their phone.

An iPad can function as a smartboard with the Educreations app, and one named Upad turns an iPad into a softscreen. Upad has options for the background that include both lined and graph paper, but a stylus is recommended for use. There are also countless apps that provide multi-media presentations that a teacher could use in a classroom setting. Appendix D has a partial list: however, as new apps are released daily, one should investigate websites such as educatorstechnology.com or even Pinterest for recommendations. Regardless, an instructor using an iPad in a class is addressing NETS*T standards 1, 3, and 4. The cohort was presented the following survey question: How could teachers use the iPad in their classrooms? Responses including aiding differentiation and Universal Access, record keeping, and a method to enhance learning with the abundant apps geared to education. In fact, the table below shows the members' feeling toward the future of the iPad in education.



Wisnlow et al present poignant reasons for school leaders to use iPads. (2012) In fact, their arguments parallel responses generated from survey of the cohort. When asked how school leaders could use the iPad, candidates' responses included streamlining teacher evaluation, schedules, calendars, emails, reports, and other paperwork. One specific class at CI is of particular significance with iPads and school leaders. EDPL 620, or Instructional Leadership, places a specific focus on Educational Leadership and student learning. Murphy (1988) argues the value of effective leadership and management by the principal in schools. A school leader should support the use of the iPad to access and integrate digital content during classroom instruction, manage data, and close the gaps in school technology. (Winslow et al 2012) A primary objective of an Educational Leadership program should be to integrate the iPad with school leadership. The iPad Initiative supports such an objective. The following table lists the assignments that can be completed on the iPad for each course in the Educational Leadership Cohort at CI.

Table of courses and assignments

Course	Title	Assignments
EDPL 610	Foundations of Curriculum	Reflections, Chapter Presentation, Group Book Report, Targeted Instruction Plan
EDUC 605	Education in a Diverse Society	Introspection on Diversity, Diversity Critique, Mid-Term Paper, Book Presentation, Reader's Workshop Chapter Presentation, Final Self-Assessment, Facebook and Blackboard Participation
EDPL 623	Organizations in Diverse Com.	Personal Case Paper, School Issue Paper, Small Group Presentation, Book Presentation
EDPL 620	Instructional Leadership	Reflective Journal(s), Leader Presentation, Classroom Observation, Shadow Project, Leadership Story
EDPL 621	Law and School Management	Pre-class Law Inventory, Current Events, Quizzes, Mid-Term, Case Papers, Administrator Interview, Board or City Council Meeting Observation
EDUC 615	Educational Research	Research Proposal, Reflective Journals
EDPL 622	School Finance and Leadership	Team Project, Individual Project, Fieldwork. Quizzes, Mid-Term, and Final
EDPL 624	HR in Education Settings	Frisk Letter, Resume, Cover Letter, Contract Summary, Mid-Term and Final
EDPL 625	Building Learning Communities	Professional Development Presentation, Book Walk, Special Education Informative Paper, Administrator Interview Classroom Visitation, Understanding Context
EDUC 619	Masters Project	Project
EDPL 632	Fieldwork	Documentation as needed

Conclusion

The iPad Initiative was a positive experience. The findings of this paper demonstrate the potential the iPad has in an Educational Leadership program. Cohort members were asked what could be done to improve the use of the iPad in the program. A popular response was to introduce the iPad at the beginning of the cohort. Whereas the action plan recommends such a measure, it created a paradox for the initiative. In order to develop an effective adoption of the iPad, experience in the coursework was needed. Other feedback included incorporating digital textbooks and integrating the iPad with course presentations. Both the research and candidates' responses stressed the need for faculty buy-in and technical support to make the iPad Initiative a successful program. When asked if they would consider purchasing their own iPad at the conclusion of the cohort, one half of the members said they would. Clearly, the iPad has value and a future in K-12 and higher education, as well as a purpose with school administration.

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Appendix B
ISTE NETS for Teachers (NETS*T)

1. Facilitate and Inspire Student Learning and Creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments.

- a. Promote, support, and model creative and innovative thinking and inventiveness
- b. Engage students in exploring real-world issues and solving authentic problems using digital tools and resources
- c. Promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes
- d. Model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

2. Design and Develop Digital Age Learning Experiences and Assessments

Teachers design, develop, and evaluate authentic learning experiences and assessment incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS·S.

- a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
- b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress
- c. Customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources
- d. Provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

3. Model Digital Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.

- a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations

- b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
- c. Communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital age media and formats
- d. Model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning

4. Promote and Model Digital Citizenship and Responsibility

Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices.

- a. Advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources
- b. Address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources
- c. Promote and model digital etiquette and responsible social interactions related to the use of technology and information
- d. Develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital age communication and collaboration tools

5. Engage in Professional Growth and Leadership

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources.

- a. Participate in local and global learning communities to explore creative applications of technology to improve student learning
- b. Exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others
- c. Evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning
- d. Contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community

Appendix C
ISTE NETS for Students (NETS*S)

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

- a. Apply existing knowledge to generate new ideas, products, or processes
- b. Create original works as a means of personal or group expression
- c. Use models and simulations to explore complex systems and issues
- d. Identify trends and forecast possibilities

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

- a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
- b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats
- c. Develop cultural understanding and global awareness by engaging with learners of other cultures
- d. Contribute to project teams to produce original works or solve problems

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information.

- a. Plan strategies to guide inquiry
- b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
- c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- d. Process data and report results

4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

- a. Identify and define authentic problems and significant questions for investigation
- b. Plan and manage activities to develop a solution or complete a project
- c. Collect and analyze data to identify solutions and/or make informed decisions
- d. Use multiple processes and diverse perspectives to explore alternative solutions

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

- a. Advocate and practice safe, legal, and responsible use of information and technology
- b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
- c. Demonstrate personal responsibility for lifelong learning
- d. Exhibit leadership for digital citizenship

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations.

- a. Understand and use technology systems
- b. Select and use applications effectively and productively
- c. Troubleshoot systems and applications
- d. Transfer current knowledge to learning of new technologies

Appendix D

Useful Apps for Teachers

1. Pages
2. Keynote
3. Numbers
4. iPhoto
5. iMovie
6. Educreations
7. Upad
8. Edmodo
9. HSW HD
10. TED Videos
11. Science 360
12. Nasa Viz
13. Khan Academy
14. Flashcardlet
15. PBS
16. Penultimate
17. Evernote
18. iBooks
19. iBooks Author
20. Goolge Drive
21. Google+
22. Voice Thread
23. iStudiez Pro
24. Animoto Video Creator
25. NearPod
26. CloudOn
27. YouTube
28. Dragon Dictation
29. eduTecher Backpack
30. Kindle
31. Skith for iPad
32. TeacherPal

Appendix E

Setting up the Airport Express and Apple TV in Broome Library 1350

- Step 1: Check out Apple TV Go Bag from the reserve desk in Broome Library. A CSUCI id with a library bar code will be needed. At the dedicated computer desk remove the contents of the bag. Take Apple TV and Airplay units out of their boxes. Remove the cables and adapters.
- Step 2: Plug the outlet strip into the wall and the white power cable into the outlet strip and Airport Express. Unplug the LAN cable from PC and plug it into the Airport Express. A solid green light indicates a successful connection (note: at this point the classroom PC will not have access to the network until the blue cable is plugged back into the PC).
- Step 3: Plug the black power cable and HDMI adapter into the Apple TV. Plug the blue LAN cable into the Airport Express and Apple TV and the HDMI adapter into the existing laptop interface on the desk (note: the PC must be powered on for the interface to work). Be sure to plug the 3.5mm audio cable in as well. However, one does not need to log into the network). Select "laptop" on the interface and power on the projector.
- Step 4: Connect the iPad to the Ed Leadership network (note: login credentials must previously be established to CI Connect). The password for the Ed Leadership network is leadership. Once the connection is established, mirror the iPad screen and the Apple TV via Airplay. To do this, double click the home button on the iPad and swipe the bottom of the screen to the left. Tap the icon with the rectangle and upward-pointing triangle. Select the Ed Leadership option (not the Ed Leadership music). Then slide the mirroring option to "yes." Finally, press the home button once to return to the iPad's home screen. What is seen on the iPad will now be on the projector.

To return the Apple TV Go Bag to the reserve desk, follow steps 1-3 in reverse order. Be sure to reconnect the LAN cable back to the classroom PC.

Appendix F

Cohort Responses to an online survey about the iPad Initiative

6. How do you think the iPad would be best used by teachers?

Instructionally as a quality remediation during UA time, as a tool for powerpoint presentations...(thanks Mark for showing us how) and as a tool for math, writing...well everything. I was surprised at the multiple uses!

Teachers can use the iPad for just about anything (creating lesson plans, research).

As a tool to provide differentiation for student learning as well as offering apps to teachers to make lessons more engaging and relevant for students.

As a tool to enhance learning. To keep records and documents organized. To help the students better be prepared for future of technology.

Due to its portability, It would allow the teacher easier mobility as he/she imparts lessons. Record keeping and easy access

7. How do you think the iPad would be best used by graduate students in an Ed Leadership program?

As a research, powerpoint and writing tool. I wish we had gotten involved in editing the thesis through the IPAD that would have been fabulous.

Use them for presentations. No more textbooks, Use the iPad as a text.

researching topics, digital textbooks, and presentations

It ought to be used for giving presentations & for the sharing of information... The greener the better

8. How do you think the iPad would be best used by school leaders?

As a tool for reports, suspensions, writing evaluations, documenting activities, even the yearbook. Our admin are using it to assist in newsletters to parents, Taking pictures...writing articles even posting video to website.

School leaders can use the iPad for everything (schedules, calenders)

Evals and presentations also to see reports off Zangle

It's convenient, portable & user friendly. School leaders are busy and often, "on the go." It's more practical that either a laptop or an iPhone.

As a source for documenting informal teacher observations, organizer/tool for personal information, presentations, etc.

To keep organized with evaluations, scheduling, and the easy access of the camera and email for stronger communication.

10. What are your thoughts on the iPad Initiative at CI. What did you like about it? How could it have been improved?

I loved it. Again I wish we had started powerpoints from IPAD earlier and writing revisions also earlier than we did...now that I have my feet wet I feel like I can really do this and help my school use the IPADS and implement them schoolwide.

I enjoyed having the iPad. Need more time to really enjoy it.

It was a good idea, but not effective. If the instructors are not willing to embrace it and utilize it, then it is pointless to have. It was nice for the students, but I do not feel it benefited the program as it was used.

Mark, you did a great job helping us out and supporting us. To be truly effective, it needs to be used in conjunction with assignments & activities. Basically, its use should be stated and required if its to be more than a fun little game playing, email checking tool.

More direct instruction and/or collaboration as a cohort on how to maximize the use of the tool.

If the iPad was given out at the on set of the cohort I may have used it more. The size and ease of use is what is most appealing to me.

I believe the professors need a stronger knowledge of the ipad and more integration of the ipad into the program.

I wish it would have been something we had at the onset of the program. Also, for individuals like me who are technically challenged and somewhat fearful of teachnology, workshops/class would have been great.