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| **[Benefits of iPads in a K-12 Educational Setting]** |
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**Introduction**

A time of great change is happening in schools around the nation as more and more schools are updating and increasing the amount of technology they have at the disposal of their staff and students. While some schools are providing a computer or tablet for every student, others are looking at classroom sets of tablets, or mobile learning centers. Whichever direction schools choose to go they are finding that students are spending more time on school work when they have access to computers or tablets on a daily basis. As schools decide how to allocate their dollars for technology to meet the needs of their students many are turning to iPads as their first and best choice.

These devices are making it to the top of the list because they are at a price point where schools can purchase more units for their dollars. They are light weight and portable so students can take them with them easily. iPads are touch driven devices which are easier for younger students and students with special needs to operate. They provide multiple options for applications for students to be creating content which work well with the new model of project based learning and flipped classrooms.

Some of the draw backs of implementing iPads include training, inadequate tech support, overall cost of implementation, and teacher buy-in. If there is proper administrative support many of the draw backs can be minimized. Through all the hype and news coverage of schools moving toward more technology integration the question becomes: Has the introduction of iPads into the K-12 educational setting improved student learning and engagement?

**Analysis and Discussion**

***Background***

In the mid-seventies computers began to appear in classrooms and within ten years the Clinton administration began the push to add more computers and computer classes to schools across the

country. By this time computers were now common place in businesses and had begun to make their way into homes. The realization that computers were not a passing fad and would be making a profound impact on society drove the increase in computer availability in schools. By 1995 the average school had 72 computers available or approximately 1 computer for every 12 students. By 2003 this number had increased to 136 computers available equaling 1 computer for every 4 students. (Christensen. 2011. p. 2)

In April of 2010 Apple introduced the iPad. Two years later over 20 million have been sold and the number of applications available for downloading has passed the 250,000 mark. K-12 educators are usually slow to add new technologies but the iPad has been appearing in schools as fast as Apple updates the product. Some of the guiding factors of purchasing iPads for educational use are; lower cost than a laptop, 8 to 10 hour batter life, and weight of just over one pound, portability and ease of internet access. (Quillen, 2011) The iPad is not the only tablet computing device on the market, but all others run on an Android platform and cannot compete with the number of applications that Apple has to offer. (Fredette, 2012)

The biggest push for learning the new skills that iPads have to offer does not come from schools but from students, parents and grandparents that want the learning in school to reflect the growing need for a workforce that is more often relying on tablets, smart phones and other advanced technology devices (curriculum review, 2012). Peluso (2012) states that students in today’s society have access to some of the most intuitive and engaging forms of communication and expression in our history. These gadgets are part of their everyday lives and are becoming mandatory in an increasingly globalized workplace.

The importance of technology in our schools is becoming more evident with each passing year. Are we doing our students a disservice by not making technology integration a priority and are iPads the best tool for the job?

 ***Why***

The question is not should we integrate technology but what technology do we choose? There options are many, but iPads are an excellent choice to address the changing learning styles of students today. There is also evidence that iPads integrated into the daily curriculum can also improve literacy skills, increase student engagement and is adaptable across grade levels.

***Changing learning styles***

Students today learn differently than students of the past. They no longer believe they should just sit and listen to the teacher, take notes, do drill and practice and memorize information and take a test to prove knowledge. They want to be actively involved and in control of what they are leaning. (Tapscott, 2009) iPads allow students to be more mobile, they can collaborate, create, and research with the touch of a finger. Learning does not have to take place only in the classroom but is available when and where the student is at the moment. Students want the “right this minute” learning available to them that iPads have to offer.

Many students today do not do well in school, not because they are lazy but because they are unmotivated. The pace of learning in their classes is slower than their own and they become bored. Students are motivated to be successful but the current model of education does not meet their needs. The system itself if set up so that all but the best students experience failure. The model of present and test does not provide the motivation for the majority of today’s students. (Christensen, 2011) The trend towards project based learning and flipped classrooms is a step towards meeting the new learning styles of students and iPads are a tool that is easily adaptable to these new ways of teaching. These methods allow students the option of creating projects that demonstrate knowledge and demonstrating practical applications in their world outside of the classroom.

***Improved literacy skills***

There are hundreds of books available on line for students to access. They can have a library of books at their fingertips at all times. An iPad provides the students with reading option. They can read the words themselves or have them read to them. Passages they do not understand can be highlighted, an unknown word can be tapped and the word is defined, and students can attach sticky notes to remind them of questions they want to ask later or points they want to remember. One of the nice features of the read aloud features on an iPad is that students can hear the expression of the reader, they can stop and replay the text for better understanding. (Thoermer and Williams, 2012). The iPad has many downloadable books that allow students to listen to stories, have word tracking as it is being read, and animations that bring students into the stories. (Hutchinson, Beschorner and Schmidt-Crawford, 2012). Hutchinson has also suggested that students read more books when they are reading on an iPad and by interacting with the characters in the story they have a better understanding of what they have read. Theormer and Williams (2012) also support eBooks for students, stating that hearing proficient readers affords the opportunity to introduce different genres, titles and authors and sparking their interest in reading altogether.

There are also many applications for the iPad that allow students the use vocabulary words to create stories and to practice spelling words in a game format. By making spelling word practice fun kids will work with the words longer and have better scores on their tests. Using vocabulary words in a sentence and story format increase retention of those words aiding in comprehension when they read.

***Increased student engagement***

Students today are digital natives, or have grown up in a world where digital technology is part of their daily lives. Technology is their native language and they expect to use technology in school. Developers are working to create applications for iPads that aid students in utilizing this new technology by creating games and learning opportunities that push users to new levels of interaction. (Valstad, 2010) Teachers are working to create lessons that require students to collaborate and discuss lessons on a deeper level through the use of web sites, blogs, and discussion boards. Putting iPads in the hands of students, even if it isn’t on a 1 to 1 basis opens them to a world of information and ideas that they did not have available to them before. When a student is interested in a topic and wants to learn more about it they can instantly access the internet to find more information. Many times in classroom situations I have heard students as a question that the teacher may not have an immediate answer to and a student will “Google it” and be able to provide an answer in a matter of minutes. Students like the ability to quickly find information or add deeper knowledge to topics in which they are interested. Valstad (2012) stated that it has been demonstrated that students learn better when they learn though multimodal presentations with animations and narration and were better able to apply what was recently learned.

***Adaptability across grade levels***

 One of the most compelling aspects of iPads in education is the adaptability to classrooms settings as early as kindergarten through high school. There are over 30,000 educational apps available for the iPad platform covering all levels of learning. Many applications are also available that are specifically designed to work for disabled students. Speech to text applications, the ease of use that the though screen has to offer and other speech pathology applications that are interactive and nonthreatening for autistic students offer these students ways to interact that were not available to them in the past. (Fredette, 2012)

 Preschools are finding that iPads have many positive features for students of this age level. The ease of use that is offered by the touch screen appeals to these young students. The applications that are available offer opportunities for spontaneous play which is a key component in early childhood education. The applications allow students to make choices, to create artwork and to interact with story books. The play they participate in digitally also bleeds over to their non-digital play as they act out stories and situations they interact with on the iPad. (Verenikins and Kervin, 2011)

 In a high school setting the iPads can be used to conduct research, create storyboards for an English project, videotaping skits for a foreign language class, skyping with classes from other schools and many other applications that can be applied across the curriculum. (Foote, 2012) The iPads offer many ways for students to create content that demonstrates knowledge learned, it is portable and easy to use. Student’s like the options that the iPad has to offer, not having to show their learning in a prescribed way but being able to make choices and to be creative in their presentations.

***How***

***Training***

This relatively fast adoption of this still evolving technology makes some wonder if the purchase and integration of this newest technology into our schools has been well planned and evaluated. One of the most important aspects of using iPads in schools is to have an administration that is well versed in the integration of this technology into the daily curriculum. Without proper guidance, support, and training from administration, teacher use of these devices many times becomes entrenched use, or merely another means of drill and practice. (Schaffhauser, 2012)

Not every teacher has the technology background or skills to successfully integrate technology into their curriculum. (Peluso, 2012) Ongoing professional development is crucial to successful integration of any new technology in the classroom. Teachers must be willing to seek out opportunities for continuing education opportunities and work to improve their knowledge of technology integration.

***Problems***

***Cost***

One of the biggest hurdles that schools face when considering any new additions to their curriculum is the overall cost of the project. iPads are relatively inexpensive options for schools when compared to laptop computers. The availability of applications for these devices is another factor that drives the price argument. Most applications range from ninety-nine cents to twenty-five dollars. These prices can be cut in half when a school participates in Apple’s Volume Purchasing Plan. This plan allows schools to purchase applications for fifty percent off the list price when purchasing more than 20 licenses at a time. There are also thousands of free applications available and some companies will run specials or limited times when the applications are free.

***Negative perceptions***

There are still many who believe that these devices are for nothing other than gaming and have no educational value. Peluso (2012) states video games and multimodal technologies have become an important part of how students learn. There is currently a great deal of research investigating the educational value of gaming in education, arguing that gaming increases student’s critical thinking and problem solving skills.

***Tech support***

 Tech support is an essential component in successful technology integration. Support not only for the teachers but for the students. Many schools have set up student tech support teams that work during breaks to offer help with operating programs and apps or to help a student work through problems making a project work. These student tech support teams

 Professional development for teachers is also organized and conducted by the tech team. They show teachers what applications are available and present ideas for integration and help teachers set up personal learning networks to continue learning and exchanging ideas with others in their same content and interest areas from around the world.

***Conclusions and Recommendations***

 There are many options for technology integration in K-12 classrooms but right now I would lean toward iPads as the tool of choice. The low cost, long battery life, portability and large number of available applications make this an excellent choice when planning technology purchases.

 Teachers will require a great deal of support and training before the implementation occurs so they are ready to go when the devices are made available to the students. They will also need to be willing to take the initiative to learn on their own to increase their skill and comfort level with iPads and the programs and applications that they will be using in their lessons.

 Administrators need to provide the technology support staff and arrange for ongoing professional development opportunities for their staff. Student tech teams should be created to provide students and staff with experts that are available throughout the day to help when question and problems arise. Networks will have to be evaluated and upgraded in some instances to support the newest technology; this should be an ongoing process in schools even if they do not buy into mobile learning devices.

In conclusion I would recommend iPads to schools looking to upgrade their school technology options. They allow students freedom of choice for learning, are cost effective, and are adaptable to multiple learning levels and special needs.

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Curriculum Review. Tech-savvy classrooms bring new rush of excitement to students and teachers.

Retrieved from: [www.curriculumreview.com](http://www.curriculumreview.com) October 2012.**Artifact Reflection**

*What was the context (the course, purpose, situation, etc.) in which this artifact was created?*

This paper was created as a requirement for the course 4131 or 5131—Technology in Education, one of the required courses for completion of the University of Northern Iowa’s Master’s in Instructional Technology. In this course we looked at the history of technology in education and how it has been successfully and unsuccessfully integrated into schools and what has been learned over time. We also looked at what is happening in schools now and what the possibilities are for the future and discussed what can be done to avoid the pitfalls of the past. This paper is a culminating project to take the lessons learned in this semester through readings and discussions and create a plan for successful integrations of a new technology into the school setting. My paper encourages the adaptation of iPads into the k-12 educational setting to enhance learning experiences of students and provide teachers with a teaching tool that provides multiple levels of integration.

*What outcome(s) (AECT standards) were you to demonstrate in creating it? For each outcome, describe how the artifact addresses the indicators within the standard.*

**Standard 2: Development**

**2.1.3 Use presentation application software to produce presentations and**

**supplementary materials for instructional and professional purposes.**

I met this standard by creating a Google presentation that was used to present my paper to the class in an Adobe Connect meet.

**Standard 3: Utilization**

**3.1.1 Identify key factors in selecting and using technologies appropriate for learning situations specified in the instructional design process.**

The final paper recommends that iPads are an excellent choice for schools looking to increase their technology offerings to students. The lower cost and simplicity of use, along with the vast options for applications make this a practical choice for technology integration.

**3.2.1 Identify strategies for the diffusion, adoption, and dissemination of**

**innovations in learning communities.**

This paper looks at how the implementation of iPads in schools in both 1:1 settings and in small numbers can enhance the learning of students and create collaborative learning opportunities, and allow students choice and freedom when creating content.

**3.3.3 Identify strategies to maintain after initial adoption.**

No specific recommendations are given but it is suggested that when purchasing new technology iPads will serve districts for coming years.

**3.4.4 Identify and implement effective policies related to the utilization, application, and integration of instructional technologies.**

Throughout the paper it is discussed how iPads can be an effective tool for technology integration at varying levels of a K-12 environment, both in a 1:1 setting and with small sets.

**Standard 4: Management**

**4.0.1 Demonstrate leadership attributes with individuals and groups (e.g., interpersonal skills, group dynamics, team building)**

It is discussed in this paper how administration needs to take a leading role in the implantation of iPads into the learning environment. Proper professional development is essential to train teachers to use the devices in ways to ensure that old methods are not being adapted to the new tool.

*What problem(s) did you encounter in creating this paper? What did you learn from encountering this problem, and how can you apply this in your current or future professional life?*

I learned that I need to see examples and be able to hear a verbal description of what is expected as well as having the written requirements. It helps me to be able to look at examples so that I can then picture how my project fits into the guidelines. I found it difficult to not be able to discuss what I was doing and how to get over some of the hurdles that I was putting in my own way. I like when we have had peer groups to meet with and discuss our projects, ask and answer question, and offer suggestions for solutions. I believe that this will help me as I plan professional development for the teachers in my school and also for students as they work on larger projects. Having that time to network and collaborate with others helps to sort out your own ideas and to look beyond your own personal biases and opinions which in the end makes the project better.

*What does this work show about you and your capabilities in relation to the identified standards?*

 This paper shows my ability to research and assimilate information into an persuasive argument. It also shows that I am able to meet expectations, and show my understanding of class objectives and goals through the completion of this paper.

*What did completing this work teach you about yourself within the field of instructional technology?*

 This paper has taught me that I am able to research and recommend new directions for our school as to what we will be doing next in our technology purchases. I have a better understanding of how technology has advanced in education in recent history. Having lived through the majority of technology integration and seeing it first hand has offered a different perspective to this class. I now better understand how things have moved forward and what has worked and hasn’t. It will make it easier to avoid the pitfalls of the past as I become a leader and change agent in our school.