

BYOD Webibliography

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### **Mobile Digital Devices**

#### **Summary**

Hill (2011) summarizes several interviews from educational leaders in an effort to add to the discussion on the use of mobile devices in the classroom. The author examines various viewpoints about Bring Your Own Device (BYOD). She cites research that suggests that 69% of all schools banned cell phone use in 2009, but many schools are taking the opposite approach. The author points out that quantitative research on the effectiveness of BYOD is lacking in the literature. The article conveys the fact that cell phone and mobile device use is prevalent among students, and the implementation of these technologies in education is a natural progression.

While some would argue that the digital divide between the haves and the have-nots hinders BYOD initiatives, Hill (2011) points out that most students have some sort of mobile device that provides Internet access. This trend is actually diminishing the technology gap that existed prior to the smartphone innovation. In addition to the access discussion, the author points out that BYOD aids school districts in integrating technology at lower costs to diminishing budgets.

The article provides various comments about how BYOD is transforming the way teachers educate today's learners as well as some barriers to implementation. Students are able to learn content outside the classroom and receive individual instruction during classroom when "flipped classroom" models are in place. Some teachers report a higher level of student engagement when using their own devices. Still, other teachers indicate a higher level of learning that mobile devices provide when students can use them to analyze and synthesize information. However, teachers do report frustrations with BYOD when students are unable to access

information due to strict filtering or blocking by system networks. Suggestions are made to provide education to students about digital citizenship and for systems to migrate to “responsible use” policies and move toward more accessibility.

### **Critique**

The article provides a good basis for the discussions surrounding BYOD initiatives. The most important point this reviewer found from the article is that very little research exists to back up what educators and students are saying about BYOD. While the reviewer herself believes strongly in the BYOD movement, anecdotal research alone is truly not reliable. Of course, firsthand experience often speaks volumes compared to research, but quality research is needed on the subject. The issue at hand is that technology increases exponentially every day and time for research is limited by the changing nature of mobile devices and the applications that accompany them. So, in retrospect it makes sense that research is lacking.

Student learning with mobile devices has the potential to revolutionize educational institutions and the way in which teachers teach. Some teachers would argue that nothing is wrong with the way they teach. What worked in 1999 still works in 2013. As the author suggests, BYOD trends will not go away, because mobile devices are not going away. Educational leaders need to reevaluate their purposes and procedures for supplying quality education to students. With No Child Left Behind and the adoption of high stakes testing for accountability, the multiple-choice test took over educational practice. Over the course of the past several years, many students have been made to focus on test taking skills rather than critical thinking. Education is once again at a precipice and mobile devices are at the forefront. Utilizing these devices to encourage creativity and higher order thinking skills can and will transform what is happening in classrooms around the globe.

### Reference

Hill, R. (2011). Mobile digital devices: Dipping your toes in technological water. *Teacher Librarian*, 39(1), 22-26. Retrieved from [http://go.galegroup.com/ps/i.do?id=GALE%7CA272444185&v=2.1&u=vic\\_liberty&it=r&p=AONE&sw=w&asid=d3e571196c426bd9977569baa10ef61c](http://go.galegroup.com/ps/i.do?id=GALE%7CA272444185&v=2.1&u=vic_liberty&it=r&p=AONE&sw=w&asid=d3e571196c426bd9977569baa10ef61c)

### Blending Technology in Informal and Formal Learning

#### Summary

This article suggests that technology can be used to bridge the gap between informal and formal learning. According to the article, formal learning is defined as learning that occurs in formal settings such as schools and is structured in curriculum, activities and assessment. Informal learning has varying definitions ranging from learning that takes place outside of school to learning that occurs accidentally. The authors suggest informal learning occurs when the learner has more control over what is learned and how it is assessed. Lai, Khaddage and Knezek (2013) cite several sources indicating how informal learning has an effect on formal learning and vice versa. Both types of learning can influence the learner to delve deeper into acquiring knowledge if a connection can be made between the two. The authors indicate that mobile technologies can be used to provide a positive link between informal and formal learning. If educators are trained in how to effectively use mobile apps and project-based learning, then informal and formal learning can be blended to provide better learning environments for students. The authors propose a model (the Mobile-Blended Collaborative Learning model) for doing so. The MBCL would use mobile device application tools designed for collaboration, coordination and communication in order to connect formal and informal learning. Students

could use Google Apps (collaboration) to share documents both in and out of school, use Twitter (coordination) for assignment instructions or updates and use Facebook (communication) for discussions outside the classroom. The article implies that most teachers do not understand how informal learning situations influence formal learning and are not currently developing strategies on how to incorporate mobile technologies into the classroom. No research is given to back this assumption.

### **Critique**

The article gives great insight into defining informal and formal learning environments, with an obvious negative attitude toward formal learning settings. The authors also display an adverse reaction to teachers in formal settings in general. Statements made regarding the lack of teachers to incorporate mobile technologies are not indicated by any real research on the matter. These are simply opinions of the authors. This reviewer has been exposed to many educators who are integrating mobile technologies along with project-based learning into their classrooms. While the practices may not be widespread, they are occurring and to make general statements is misleading to the reader.

The reviewer does agree with the assumptions made by the authors that formal and informal learning do indeed have an effect on the learner. Student motivation is a key component to student learning and has been so prior to the invention of any technology. However, technology does indeed give educators an open door to linking the two types of learning, which can have a large impact on students. When students are able to make connections between the outside world and what happens inside the classroom, learning is enriched and is often times prolonged. The days of learning for the sake of passing a test should be laid to rest, and the MBCL model provides a framework for doing so. A more detailed article about the MBCL

model is needed to provide educators with specific instructional practices using the approach. While some strategies are mentioned in the article, a thorough explanation of the model is lacking. Educators will benefit from such strategies and training as they prepare students to think critically in the 21<sup>st</sup> century.

### **Reference**

Lai, K. W., Khaddage, F., & Knezek, G. (2013). Blending student technology experiences in formal and informal learning. *Journal of Computer Assisted Learning*, 29(5), 414-425.  
doi: 10.1111/jcal.12030

### **Teaching and Learning with iTouch**

#### **Summary**

This study was conducted to add to the limited research on utilizing new technologies in the higher education classroom. Six new faculty members at the University of the Pacific were given Ipad Touches to use as a teaching tool. Along with receiving the devices, the university provided ideas, a resource library and both administrative and technology assistance with the devices. The participants consisted of volunteers from various departments including math, science, political science and art. Each faculty member utilized the technology in differing ways, but all incorporated active learning strategies with the use of the devices. Faculty members reported their findings via email throughout the study. A control group was not established for this study and no common data collection method was established. Each faculty member agreed to collect his or her own data during one academic term; both qualitative and quantitative data was obtained. Examples include student surveys, course evaluations, test data and narratives of perceptions.

The article provides a review of each faculty member's use of the iPod Touch. The devices were used to email, access and update Google Docs, take photos, upload videos to YouTube, record audio and microblog using Tumblr. Each participant provides specific strategies and student feedback results. Many students reported that iPod Touches aided in their ability to learn material and/or find the material interesting. Some students did not care for the devices and preferred a more traditional approach to learning.

### **Critique**

While this study is not wide in nature or particularly reliable, with no control group or consistent measuring tool, it does indicate a need for more data on the implementation of mobile devices in the educational environment. With BYOD gaining popularity, more data is needed to examine its effectiveness in the classroom. Too often districts or universities jump on the bandwagon without truly evaluating the need or effectiveness of a tool. The feedback provided by students in this study suggests that not all students benefit from BYOD initiatives. This is not surprising as not all students are exactly alike. Perhaps, educators should be more aware of what types of students they are working with before adopting a blanket policy for everyone. This is not to say that BYOD should not be implemented but that all students should not be expected to learn using the same exact methods. Some students may benefit from technology tools while others may be hindered from learning by using a device.

An important component this study brought to mind is the need for faculty members to be involved in the process. The educators here were given free reign on how to initiate the use of the iPods and how best to assess student outcomes. Not all data boiled down to student achievement. While achievement is essential to evaluating learning, some aspects of learning are not indicated by student achievement. Student motivation and enjoyment of learning is also a

valuable tool in assessing teaching and learning. This fact is often overlooked in today's world of high stakes testing and teacher evaluations. BYOD is not a fix-it all policy, but if given the opportunity, many students can benefit from its implementation. This article supports the opinion of the reviewer that more research is needed on BYOD initiatives and all stakeholders need input on the decision-making process.

### **Reference**

Mayberry, J., Hargis, J., Boles, L., Dugas, A., O'Neill, D., Rivera, A., & Meier, M.

(2012). Exploring teaching and learning using an iTouch mobile device. *Active Learning in Higher Education*, 13(3), 203-217. doi: 10.1177/1469787412452984

### **New Technologies and Pedagogy**

#### **Summary**

Philip and Garcia (2013) assert the importance of assessing why new technologies, especially the use of smartphones and other similar devices, should be introduced in the classroom environment. They argue that close examination needs to be made into how a technological device will improve learning. The reasons often given for implementing Bring BYOD initiatives are tied to student engagement and individualized learning. The authors suggest, based on their own research, that while kids may have interests in new technologies, these fascinations may not transfer fully into utilizing the technology for academic purposes. The idea that technology in itself will help transform how students learn and increase academic achievement are also brought to the forefront of discussion in this article.



In light of the wave of BYOD policies across the nation, recommendations are made to analyze the purpose for adoption and to look at the lack of research on the subject. Some discussion is presented about how technology is supposed to change teaching but in reality good teaching is not a product of technology but rather pedagogy. How teachers interact with their students in the context of technology implementation is considered the most important factor in determining whether to adopt a new technology into the classroom environment.

### **Critique**

Philip and Garcia (2013) make valid points in regards to technology adoption for technologies sake. While the methods of teaching may change, the role of the teacher is still vital to the education of today's students. The reviewer agrees with the authors' points that technology does not trump good teaching. To assume that all teachers and students will be made better by the implementation of mobile technologies is not only irrational but also irresponsible. The reviewer's own district has adopted a BYOD policy and has seen the frustration of teachers and the misuse by students in utilizing devices. Teachers are not always comfortable with new technologies, and there may not be a need to use devices when objectives can be met using other processes. Many people can jump to inappropriate assumptions about these teachers because of their unwillingness to participate in BYOD; however, good teaching is good teaching no matter what form it may come in. Students, on the other hand, have been caught misusing the devices, even though strict policies are in place. One could argue that this will always be the case, regardless of the situation. Students can and do break the rules, but that alone is not enough to abandon the BYOD initiative.

Some students are also not as familiar with the technology as one would assume, especially in an academic setting. The authors suggest this is another reason to reexamine

technology implementation; however, the reviewer would argue the importance of pushing students to become familiar with new technologies. The 21<sup>st</sup> century is here with all of its technology and innovation in full swing. Sure, students still need to be taught the basics and become good critical thinkers, with or without technology, but students also need to be familiar with academic purposes for technology. Using technology for purely social reasons can limit students' abilities to become lifelong learners. The opinion of this reviewer is that a new role for educators is to facilitate technological learning using mobile devices.

### **Reference**

Philip, T. M., & Garcia, A. D. (2013). The importance of still teaching the iGeneration: New technologies and the centrality of pedagogy. *Harvard Educational Review*, 83(2), 300-319,400-401. Retrieved from <http://search.proquest.com/docview/1399327199?accountid=12085>

### **Security vs. Access**

#### **Summary**

This book provides a thorough summary of issues associated with network security for schools in relation to the need for Internet access for students and faculty. In many districts across the nation, network security is so strict that teachers often frustrated with implementing technology and refrain from doing so. The authors examine eight security threats and breakdown each threat in each chapter. They include the realities surrounding each threat and identify common misconceptions as well as give suggestions for how to effectively address the problem without deterring teachers from utilizing digital tools and media in the classroom.

#### **Critique**

The chapter on mobile devices is of particular interest to the reviewer, since the topic chosen for research is BYOD. The authors' point out that the misuse of mobile technologies by students is a viable threat in classrooms. Students may and often will choose to act inappropriately when mobile devices are allowed and even more so when they are banned. Oftentimes, teachers are blamed for the behavior of students in the classroom. Teachers have realistic concerns for job security and student safety when certain misuses occur, such as students accessing inappropriate or pornographic images, sexting or cyberbullying. While these situations do arise, just how widespread the problems are is unknown. Mass media often plays a role in spreading fear among parents, administrators and teachers.

In the opinion of this reviewer, a simple common sense approach to the matter is most appropriate. School systems will often ban mobile devices all together to avoid issues with misuse. This tactic is not only counterproductive to the digital movement and 21<sup>st</sup> century learning; it is also rarely 100% effective. Students will use mobile devices on school grounds even when they do not have privileges to do so. Allowing students access to mobile devices for educational purposes with set guidelines and rules is extremely beneficial to all parties involved. Students must be trained on appropriate use of technology, especially mobile devices. Educators have a unique opportunity to share safety concerns and model proper use to students when BYOD is allowed in schools. Banning mobile devices is a grave error if students are to be prepared for 21<sup>st</sup> century living and learning.

### **Reference**

Robinson, L. K., Brown, A. H., & Green, T. D. (2010). *Security vs. access: Balancing safety and productivity in the digital school*. Washington, DC: International Society for Technology in Education (ISTE).

