

Wicked Problems in Education

Educational Need or Opportunity

Last spring, the teachers in our district found out that we would be getting iPads with a technology bond. There were mixed emotions within the staff, but regardless of how everyone felt, iPads would be rolled-out 1-1 for student use both in and out of the classroom. To assist in the transition, the district held various trainings for the teachers, but in the end, much of what I have figured out so far seems to be from trial and error. Many would dream of the opportunity to have this much technology in the hands of their students. It would be a shame for the technology to go to waste. The “wicked problem” I am looking to solve is how to not only successfully but meaningfully integrate the iPad into daily classroom use.

Technology-integrated Strategy

Having had the iPads in the students’ hands for just over a month, I would have to say that I use them at the most basic level in my classroom. I have the students use the graphing calculator capabilities, along with accessing Blackboard and my weebly. This entire project would be looking at using the iPad as a productive tool to increase student engagement throughout the lesson using the Socrative App.

Logistics of a Solution

The solution to this problem will hopefully come out of my Accelerated Physics classroom, which consists of 34 juniors and seniors. I would start by having the students download the Socrative App and doing a trial quiz, discussion, and review game. I plan to use the Socrative App during our Energy Unit, which should be about four weeks.

Strategy Supporting Research

There are many articles out there that discuss the integration of iPads in the classroom. Christina Bonnington said, “millions of grade school and university students worldwide are using iPads to visualize difficult concepts, revisit lectures on their own time and augment lessons with videos, interactive widgets and animations.” This would be something that I am looking to incorporate as often as possible throughout the school year. The only way to keep students engaged is by finding tools, like the Socrative App, that interest them.

The ability for students to personalize their learning is another important aspect of education. When discussing iPad use in her classroom, Beth Still said, “each student will also determine what their final product of their research will be. It could be a video, slideshow, infographic, Wikipedia entry or any number of other things.” This would provide each student the opportunity to do something that interests them rather than something that is dictated by the teacher.

Implementation Plan

One of the features of the Socrative App that I will implement is the use of quiz questions and my projector. I could use both the short answer responses to questions and quick polling of the class with multiple-choice prompts in a couple of different ways. The first way is to generate class discussion. For example, I can put a topic on the board and have the students brainstorm ideas for that topic, post a word for the students to define, or pose a question that I want the students to answer. What is nice about this feature is that the responses are anonymous, so students that do not normally like to speak in class can still participate without feeling like they are in the spotlight. I can incorporate questions into my notes that poll the students to check understanding. If the majority of the class is getting these questions correct, I can move on to the next topic/activity.

A second feature of the Socrative App that I will use is the quiz. I can program a quiz into Socrative that has multiple choice, true/false, and short answer questions. This quiz can be saved and given to multiple classes. When the students take the quiz, I can set the questions to randomize the order of both the answers and the questions so the students cannot get help from their partner. The Socrative App can even email the results to me as a quick and efficient way of grading the responses.

The third feature of the Socrative App that I would like to try is the Space Race review game. I can break my class into groups of two or three and have them work together to answer review questions. Each group is assigned a different color rocket that moves forward as they answer questions. The group that gets their rocket furthest across the screen wins.

Indications of a Successful Project

If this project is successful, I would hope to see positive teacher and student interactions with the iPads in my classroom. I would also take whatever I learn from this project and share it with my colleagues and others. Another outcome of a successful project would be less student distraction with personal Apps and games. If the students are truly using the iPads in an engaging way, there will be no need or time to do anything else with them. It is important for the students to learn that the iPad is a tool, not a toy.

Resources

Bonnington, Christina. (March 6, 2013). Can the iPad Rescue a Struggling American Education System? *Wired*. Retrieved from <http://www.wired.com/gadgetlab/2013/03/tablets-revolutionizing-education/>.

Still, Beth. (December 7, 2012). I Quit. Retrieved from <http://bethstill.edublogs.org/2012/12/07/i-quit/>.