

# Chapter 11

## Use of Apple iPads in K–6 Math and Science Classrooms

**Tara Bennett**

*University of North Carolina Wilmington, USA*

**Florence Martin**

*University of North Carolina Wilmington, USA*

### EXECUTIVE SUMMARY

*In this chapter, the authors review how iPads were used in a middle grade math classroom of a technology magnet school. The school has received two mobile iPad carts in addition to the three they have. Ms. Martin, a science teacher at this middle school, has received one of the mobile iPad carts due to her interest in technology integration. Ms. Martin is considered to be an early adopter of technology at her school, and she has been using iPads for more than a year in her sixth grade classroom. Ms. Bennett, who recently received 25 iPads, paid a visit to Ms. Martin's classroom to learn how to integrate iPads in her science classroom. This case study describes Ms. Bennett's visit to Ms. Martin's classroom on the day when the students were studying how to solve inequalities by using addition and subtraction. Ms. Bennett's goal for the visit was to identify the different ways Ms. Martin was using iPads with her students, and monitor the comfort level of her students with the iPads. She documents what she learns from the visit, and discusses it with Ms. Martin; she also meets with Mr. Pallapu, the technology facilitator at school. Ms. Martin shares some tips and techniques that she can use in her classroom, and also some benefits and challenges of using the iPad. Mr. Pallapu provides her with a list of recommended apps and instructional strategies for using iPads in the classroom.*

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## **MOBILE LEARNING**

The use of wireless, mobile, portable, and handheld devices is increasing and diversifying throughout the world (Traxler, 2009). Mobile devices such as iPods and iPads are being used as learning tools in the traditional classroom. However, many teachers are using iPads only for in-class activities by just replacing the laptop or desktop computer. Phones, computers, and media devices now fit into our pockets and can connect us instantaneously to a world of information in various locations on the go. Quinn(2000) defines mobile learning as the “intersection of mobile computing and elearning and includes accessing resources anytime from anywhere.” Today, mobile learning utilizes both handheld computers (tablets) and mobile smart phones such as an Apple iPhone or Android cellular phone. These devices are equipped with operating systems that allow the user to connect to the internet with the added functionality of mobility.

This convenience of accessing information anytime from anywhere through mobile technology gives the learner the freedom to learn at their convenience and allows them to gain knowledge in additional areas of interest that may not have been available to them (Traxler, 2009). Students today grow up with some form of technology in their hands at younger and younger ages. The use of these technologies allows teachers to “think outside the box” and give their students a more motivating learning environment. Mobile technologies engage students through the use of video and audio that goes beyond reading a textbook. The use of video and audio enables auditory, visual, and kinesthetic types of sensory perceptions-to be engaged during the learning process (Franklin & Peng, 2008). Several studies have been conducted on integrating iPads in the traditional classroom and how it benefits learning and teaching (Shepherd and Reeves, 2011; Barseghian, 2011; Jennings, Anderson, Dorset, & Mitchell, 2011).

### **Problem**

Mobile Devices are everywhere. Students are growing up with mobile devices, and a number of them own a mobile phone or a tablet. Schools have been buying iPad carts and teachers are exploring ways to integrate them in their classroom. They are still in the process of learning how to utilize the interactivity and accessibility of mobile devices to increase student learning. In this case study we see one such example, where a middle school has received mobile technology, and a teacher is trying to figure out how to utilize the iPads effectively.

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