

## Chapter 57

# A Multiple–Case Study Examining Teachers' Use of iPod Touches in Their Pedagogical Practices for English Language Learners

**M. Liu**

*The University of Texas at Austin, USA*

**E. Maradiegue**

*The University of Texas at Austin, USA*

**C. Navarrete**

*The University of Texas at Austin, USA*

**J. Wivagg**

*The University of Texas at Austin, USA*

### ABSTRACT

*Mobile technology has been noted as a valuable resource for students in K-12 education and potentially for English Language Learners (ELL). ELL students enter schools with different levels of English proficiency and teaching such a population often presents a daunting academic challenge. Using mobile devices for learning, holds certain potentials as the literature indicates. Benefits of mobile technology such as flexibility, accessibility, interactivity, and motivation and engagement have been documented. This multiple-case study examines ELL teachers' use of the iPod touch in their instruction at elementary, middle, and high school levels to understand how such mobile devices are used and the teachers' perception of using them.*

### INTRODUCTION

The goal of this chapter is to describe three cases (one at elementary level, one at middle school level, and one at high school level) in which one mobile technology, iPod touch, was used in the classrooms of English Language Learners (ELL)

as a teaching and learning tool. ELL students are learners of English and have different levels of English proficiency. They represent unique academic challenges in language acquisition. Through the use of mobile technology such as iPod touch, ELL students are provided with the opportunities to engage in authentic tasks to practice listening,

DOI: 10.4018/978-1-4666-8789-9.ch057

speaking, reading, and writing skills that otherwise might be difficult to accomplish with traditional instruction. We asked the research question: To what extent, can mobile technology such as an iPod touch facilitate teaching and learning with ELL students? The intention was to examine ELL teachers' use of iPod touch in their instruction at elementary, middle, and high school levels to understand how such mobile devices are used and teachers' perception of using them as a teaching tool.

## **BACKGROUND**

### **Benefits and Challenges of using Mobile Technology in K-12 Education**

Mobile devices have become a facet of daily modern life. The personal use of cell phones, smart phones, PDAs, and tablets is ubiquitous. The increased comfort using mobile devices in the personal realm has led educational institutions to begin welcoming these devices into the classrooms, to harness their affordances for instructional purposes. Mobile technology provides educators a unique combination of capabilities unparalleled by other classroom technology such as desktop computers and whiteboards. Literature on mobile learning has identified such affordances: 1) flexibility and accessibility, 2) interactivity, and 3) motivation and engagement.

Most notable of the affordances is the ability to take the device anywhere and connect to the Internet, giving students the flexibility to learn anywhere. Students can use the devices at the mall or on the bus, extending their learning beyond the normal school day and, even beyond their time at home (Chen & Chung, 2008; Motiwalla, 2007; Virvou & Alepis, 2005). Furthermore, teachers are able to incorporate the devices into activities by bringing the real-world into the classroom (Cochrane & Bateman, 2010; Lai, Yang, Chen,

Ho, & Chan, 2007) or accessing additional relevant resources on field trips (Chipman, Druin, Beer, Fails, Guha, & Simms, 2006; Liu & Chu, 2010; Ogata et al., 2008; Sandberg, Maris, & de Geus, 2011). Field trip opportunities that utilize mobile devices allow students to draw connections to previously learned content knowledge, gain new knowledge and develop problem-solving skills (Liu, Tan, & Chu, 2009).

Students can also draw on the technological advances of today's mobile devices to be able to directly interact with information, as well as share and collaborate with other learners. The multimedia capabilities enable students to practice interactively with the device with a touch. Students can watch video recordings, read study materials, and record audio. They can also stop, review, and skip through the material, giving them independent control over the pace they receive information (Banister, 2010), which allows them autonomy over their own learning process. The device also provides a forum for a collaborative learning experience (Markett, Sánchez, Weber, & Tangney, 2006). For example, in a study conducted by Liu, Tan, and Chu (2009), students took pictures and sent them to their classmates, where they used a discussion tool to collaborate and revise a report. The interactivity makes information available in an engaging manner, which can appeal to students who might otherwise not be interested in the lesson (Swan, Van't Hooft, Kratcoski, & Unger, 2005).

Mobile technology is one of the most recent tools utilized by schools to address the ever-present concern of keeping students interested in what they are learning. Educational game applications are one way in which mobile devices like smartphones can engage students. Studies have shown that students have an increased level of engagement and enjoyment when playing m-learning games (Huizenga, Admiraal, Akkerman, & Dam, 2009; Liu & Chu, 2010). There has been some research suggesting that engaging students in their learning can lead to increased time with the instructional

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/a-multiple-case-study-examining-teachers-use-of-ipod-touches-in-their-pedagogical-practices-for-english-language-learners/139087](http://www.igi-global.com/chapter/a-multiple-case-study-examining-teachers-use-of-ipod-touches-in-their-pedagogical-practices-for-english-language-learners/139087)

## Related Content

---

### Reading and Collaboration: Developing Digital Reading Practices With Computer-Assisted Text Analysis Tools

Andrew Klobucar and Megan O'Neill (2021). *Human-Computer Interaction and Technology Integration in Modern Society* (pp. 177-202).

[www.irma-international.org/chapter/reading-and-collaboration/269654](http://www.irma-international.org/chapter/reading-and-collaboration/269654)

### The Understanding of Spatial-Temporal Behaviors

Yu-Jin Zhang (2019). *Advanced Methodologies and Technologies in Artificial Intelligence, Computer Simulation, and Human-Computer Interaction* (pp. 392-405).

[www.irma-international.org/chapter/the-understanding-of-spatial-temporal-behaviors/213144](http://www.irma-international.org/chapter/the-understanding-of-spatial-temporal-behaviors/213144)

### Digital Detox Movement in the Tourism Industry: Traveler Perspective

Mohammad Badruddoza Talukder, Firoj Kabir, Fahmida Kaiser and Farhana Yeasmin Lina (2024). *Business Drivers in Promoting Digital Detoxification* (pp. 91-110).

[www.irma-international.org/chapter/digital-detox-movement-in-the-tourism-industry/336744](http://www.irma-international.org/chapter/digital-detox-movement-in-the-tourism-industry/336744)

### Open Innovation in SMEs: Contexts of Developing and Transitional Countries

Hakikur Rahman (2021). *Human-Computer Interaction and Technology Integration in Modern Society* (pp. 106-130).

[www.irma-international.org/chapter/open-innovation-in-smes/269651](http://www.irma-international.org/chapter/open-innovation-in-smes/269651)

### An Analysis of the Education Category in App Markets

ebnem Özdemir, Emre Akad and Zerrin Ayvaz Reis (2016). *Human-Computer Interaction: Concepts, Methodologies, Tools, and Applications* (pp. 1270-1282).

[www.irma-international.org/chapter/an-analysis-of-the-education-category-in-app-markets/139091](http://www.irma-international.org/chapter/an-analysis-of-the-education-category-in-app-markets/139091)