Chapter 28
Efficacy of Cell Phones Within Instructional Design:
A Professor's Perspective

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ABSTRACT

Through qualitative measures, this article seeks to explore the efficacy of cell phones within college-level instructional design specifically through the eyes of the professor. Three main themes evolved from this data: Pedagogical Approaches, Value, and Setting Behavioral Expectations. Based on interviews with ten college professors regarding their experiences with the use of mobile devices within instructional design, findings show that when establishing the right balance with intentional and/or impromptu pedagogical approaches, that value and motivation is evident. Setting behavioral expectations was recommended by all participants in order to convey solid expectations; all expectations were unique, yet successful within the participants' classroom. Participants discussed their experiences within all of those areas and how they utilize cell phones to motivate students, how they set appropriate boundaries, and the overall effectiveness of the cell phone usage in the college classroom is explored.

INTRODUCTION

Cell Phone Usage

Americans, in general, spend a great deal of time checking their cell phones, upwards of 46 times per day, collectively averaging 8 billion times per day (Eadicicco, 2015). As mobile devices have numerous uses, those times could include family connecting, Internet browsing, and/or tools for student learning (Babu, Sukesh, & Deepika, 2014). Opportunities also present themselves to students of all ages for using

a cell phone for entertainment or educational purposes (Babu et al., 2014). In fact, over the last several years, cell phones provided multiple avenues for augmenting classroom learning (Tindell & Bohlander, 2012). With 100% of U.S. adults ages 18-29 owning a cellphone, 92% of those smartphones (Who owns smartphones and cellphones, 2017), the accessibility for allowing or purposefully implementing cell phone use within classrooms is an extremely viable option.

Integrating mobile devices in class instructional design, also referred to as here and now learning (Martin & Ertzberger, 2013), m-learning (Yang, 2012), or anywhere anytime learning (Gikas & Grant, 2013), creates easily accessible learning opportunities (Gikas & Grant, 2013; Yang, 2012, Tindell & Bohlander, 2012). Those overarching opportunities include creating digital projects, promoting collaboration, or simply gathering information with immediacy. Students could quite possibly consider the encouraged use of technology during class a reward (Finn & Ledbetter, 2013). In Yang's 2012 quantitative study with 58 students, the most common response to efficacy questions was that using the mobile device made learning fun; it was like using a toy. Using various tools such as an online dictionary enabled students to be more productive while using a device that is within their comfort zone (Herrara Díaz, Cruz Ramos, & Sandoval Sánchez, 2014). Using the device in the moment that an idea or follow-up need occurs allows students to send a text or email to professors or classmates immediately; this solves the problem of remembering to get on computer later for this simple task (Gikas & Grant, 2013). Efficiency, convenience, immediacy, time management, enhanced motivation, real-world applicability, and the use of tools such as notes, cameras, and calculators are some additional examples of the benefits (Gikas & Grant, 2013; Herrara Díaz et al., 2014; Yang, 2012; Smith-Stoner, 2012). While there are educational benefits, students appreciate the ability to have mobile devices in the classrooms to stay connected personally, non-educationally (McCoy, 2013).

The use of cell phones within course work can prove to be a double-edged sword. Cell phones increase our responsibilities, can cause anxiety by enabling round the clock obtainability, and can equate to lower GPAs (Lepp, Barkley, & Karpinski, 2014). In Lepp et al.'s quantitative study using 536 undergraduate college students, cell phones were found to be an answer to boredom in which students reverted to texting, answering emails, and searching social media. In that vein, university students surveyed by McCoy (2013) rendered results that entertainment opportunities are derived from cell phones during monotonous class moments. In fact, 80% of those surveyed claimed that they used cell phones to combat boredom or to provide entertainment, although students also admitted that the distractions resulted in missing key instruction and diminished focus during class. Student focus and academic performance can suffer as a result of these distractions (Kuznekoff & Titsworth, 2013; Lepp et al., 2014; McCoy, 2013; Wei, Wang, & Klausner, 2012). Conversely, not only are students impairing their own learning, but cell phones cause educational distractions (alert tones or students showing pictures or posts to others) that put surrounding students at an educational disadvantage (Ali, Papakie, & McDevitt, 2012). Otherwise known as phubbing, checking your phone frequently for educational or personal reasons continues to be highly recognized as a distraction by students (Ugur & Koc, 2015). These culminating distractions can prove difficult in keeping students engaged in their overall learning.

Instructional Design to Motivate Students

Instructional design, simply put, is planning instruction in a manner in which learning is effective and engaging; technology is often infused to increase the appeal and provide student motivation (Kearsley & Culatta, 2016). In fact, Keller's ARCS Model from 1987 is a motivational tool designed to increase interest

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