

Student Impressions of Academic Cell Phone Use in the Classroom

By Jack Tessier

Cell phones have become ubiquitous in society, but they are typically seen as a problem in the classroom. This study was designed to assess the perspective of students regarding the use of cell phones as academic tools in the classroom. I encouraged students to use their cell phones in an environmental issues course to find data and other information, which they then shared with the class. At the end of the semester, students voluntarily completed a survey detailing their perspectives. Students felt that cell phones helped their learning, encouraged their enjoyment of the class, improved their success in the course, marginally increased their attendance, and were not an important distraction. Cell phones can be seen as a tool for learning and explored as a means to help students access and take ownership of knowledge.

During the past few decades, science teachers have been encouraged to implement teaching techniques that require active involvement by students (King, 1993; McNeal & D'Avanzo, 1996; Newton, 1999). These approaches include inquiry-based labs, discussions, debates, and other approaches that require thought, interaction, and activity by students (Phelps Walker, Sampson, Grooms, Anderson, & Zimmerman, 2012; Proulx, 2004; Weimer 2002). In particular, it is critical to get students in science classes to access, interpret, and share data about the subject of study (American Association for the Advancement of Science, 2009; Kloser, Brownell, Chiariello, & Fulami, 2011; National Research Council, 2003).

Cell phones and other electronic devices provide a means for students to access data within the classroom (Prensky, 2005). The majority of Americans exploits wireless signals for internet access (Rainie, 2010), and cell phones are widely used for their mobile convenience (Leung & Wei, 2000). College-age students, in particular, make heavy use of cell

phones to increase feelings of safety, improve time management, and keep in touch with friends and family (Aoki & Downes, 2003). Such familiarity with cell phones makes them a logical choice for accessing data and other information in the classroom (Thornton & Houser, 2005).

Instead of being viewed as a powerful learning tool, however, cell phones are typically seen as a problem and a challenge in the classroom (Gilroy, 2004). In fact, many schools have implemented policies to restrict cell phone use by students and teachers (Obringer & Coffey, 2007). This exclusionary approach to cell phones in the classroom may cause a missed opportunity for educators to relate to students, encourage their participation, and bring up-to-the-minute facts to the classroom activities.

The objective of this study was to document student perceptions about the use of cell phones within the classroom. In particular, I wanted to know if students felt that using the cell phone for academic purposes would promote learning, cause distractions, increase their enjoyment of the class, encourage attendance, and promote student success in the class.

Methods

The State University of New York (SUNY) Institutional Review Board (IRB) approved this research before it began. This study was conducted in BIOL 110 Environmental Issues and Sustainability during the spring 2012 semester. This class met three times per week for 50 minutes without a laboratory component. It is offered each semester, with a typical enrollment of 35 students. The course begins with basic information about ecosystems, moves on to the human population and natural resources, considers a variety of current environmental issues, and ends with a capstone regarding sustainable living—including a project in which students redesign a municipality to make it sustainable.

On most days, students worked in small groups (four to six students) to address questions posed to them. After small-group discussion concluded, the entire class discussed the questions that students were able to answer and those that they could not. Students were encouraged to use their cell phones and other electronic devices (such as tablets and laptops) to find the answers to the questions. In particular, students were urged to find data that helped to address the questions and isolate patterns relevant to the questions. Examples of questions include the following :

1. How many pounds of garbage does the average American produce each year?
2. What is the size of the human population?
3. What is soil and how long does it take to be produced?