

The Misuse of Cell Phones — and the Unrealized Potential of Technology — in the Classroom

Abstract

Students who bring their cell phones to class and use them to text other friends, make social media posts or play games, are both missing out on their education and annoying those sitting near them. At the end of the Literature Review, this author focused on how to deal with such inconsideration and whether younger students are more likely to offend. Today, however, it has become apparent that this focus is both irrelevant and too limited in scope, as students of almost every age have grown up with this technology as part of their lives, and — almost — as part of their very being. At this point, we should be looking to the future. While we can still ask: “How can students be prevented from abusing cell phones in the classroom?” a more important question would be: “How can mobile technology be better employed as a vital learning tool?” This paper will draw conclusions from both past and current mobile phone research studies, and answer these two research questions in the process.

How Can Cell Phone Misuse Be Prevented in the Classroom?

Cell phones are often misused by students in classrooms, to the annoyance of their classmates. Many students still text, check their email or play games in class, although contrary to what they — and most people — assume, it is virtually impossible to successfully multitask with a phone while listening to a lecture (or anything else). That is why so many states have banned non-hands-free phones in cars and taxis: too many people have died thinking they could both drive and text (Sundeen 7). Even talking on a phone and driving is dangerous. Yet many students (and some of the rest of us, as well) feel that losing one's mobile is tantamount to losing part of one's brain (Bracey 271).

Nevertheless, much research to date has focused on the downside of mobiles in the classroom. For example, in “The Use and Abuse of Cell Phones and Text Messaging in the Classroom: A Survey of College Students” by Tindell and Bohlander (at Wilkes University, 2012), 269 students — ranging in age from eighteen to fifty — from twenty-one majors were surveyed. 95% of students bring their phones to class every day and 92% send text messages during lectures, while 30% do this every day. 10% admit that they have texted during an exam at least once. Furthermore, students believe that the faculty is unaware of what is going on behind their backs: web surfing, sending photos, posting on social network sites, and other activities (1). Additionally, Tindell cites a study by Chaklader and Bohlander (2009), regarding students who received texts during a lecture, saying that test results were significantly poorer for the texting students (2), indicating that social texting and learning do not go well. Age is also a factor in tolerating cell phones ringing in classrooms, as Ling reported in 2004 (124) and Scott Campbell discovered in his groundbreaking 2006 research: younger people are used to having the devices around and tend to ignore the interruptions (290).

A 2010 study by Burns and Loheny shows that 85.1% of students think mobiles are a distraction during lectures *versus* 84.2% of faculty (806). This is a very high percentage of people who have not yet found a constructive use for this powerful technology in a learning situation. In spite of this perception, over half of all the respondents are aware of the policies, but

over 40% of students are texting in class, checking messages and using backlights that annoy those sitting near them. As a result, the authors suggest that cell phone policy should be clearly spelled out from the beginning in the syllabus and manuals and discussed with the students, so that they are all in agreement and can thereby reduce the number of etiquette violations (807). Tindell (6) describes some other policies that professors, in desperation, have come up with on their own, including confiscating any ringing phones, answering any ringing phones themselves, forcing violators to bring treats for the entire class the next day or, if a phone rings during an exam, giving the offender an automatic zero grade.

After all, there is much at stake in a learning situation. Burns and Lohenry (2010) suggest that, after graduation, there can be serious fallout in the workplace for former students if cell phone etiquette is not taught or enforced in the schools. Citing several studies, they assert that today's medical student who lets her phone ring (or texts her friends) in the classroom will show similar discourtesy later on to her patients in her practice (809). This could lead to a breakdown in doctor-patient communication and ultimately, to a reduction in the quality of healthcare. Additionally, bad mobile phone etiquette in corporate meetings will not lead to advancement in the workplace.

Our first research question, then, regarding ways to reduce cell-phone distraction in class, can be addressed by creating clear-cut cell phone policies in advance, with a consensus reached by both the professor and the students, so that mobile phones are not abused in an educational setting. This would reduce or eliminate distraction in class, while cheating on exams could be reduced or eliminated by making tests open-book — using facts to form intelligent opinions, rather than just parroting them back.

As much of the research done to date is focused on the antisocial nature of cell phone usage in class, mobiles are frequently shown to be “something that threatens the processes of cultivation and learning around which pedagogy and citizenship revolve” (Goggin 115). Of course, such out-of-proportion fears are not anything new. In fact, back in the days when learning was confined to paper and pencil, students found ways to distract with these simple

items, as well. Some drew cartoons, while others passed notes or made paper airplanes. This author believes that many educators (and students) are being reactive — not proactive — in the presence of a technology that is new to academia. Most people resist change, and most new technologies — from the railroads to the telephone to the airplane to the automobile — have had to wait some time to be fully accepted and properly utilized.

How Can Mobile Technology Be Better Employed as a Vital Learning Tool?

There is, as yet, plenty of unrealized potential in the mobile phone, which leads us to our second research question: “How can mobile phones better utilized as a learning tool?” After all, as phones have evolved they have lost more than just their flip covers. Apps and cameras have been added, along with GPS and high-resolution images. The internet, books and periodicals, current events and breaking news, television, videos, social media, films and a wide range of data are available on them. If you cannot manage such a tiny screen, tablets like the iPad are there to help you live your entire life on just one device. The students of today have grown up with cell phones and, as one of them succinctly puts it, he learned to read from his computer games (Prensky, 2005, 1). Since so many students feel such a strong need for their phones in the classroom, it seems to this author that it would make sense to fully utilize that technology, for it is here to stay. As more and more students embrace it perhaps educators should, too: and in many cases they already have.

George Chinnery (2006) points out, for example, that telephones were used in long-distance learning as early as 1988 and 1996. In 2001, Dickey used teleconferencing to teach an English course in Korea, while the Stanford Learning Lab explored the use of mobile phones as a teaching tool that same year. Vocabulary building, quizzes, translations and live tutors were accessed or utilized in this manner, although in those early days, poor audio quality was less suitable for tutoring. In 2005, according to Chinnery, Levy and Kennedy created a program in Australia for people learning Italian. Mini-lessons were emailed via mobiles to students defining five words a week, previously learned vocabulary and short quizzes, increasing comprehension. Other programs and apps are now available, and “moblogging” (a term Chinnery likes for the

uploading of text and images from a phone, which would now include “selfies”) has become popular as well, and could be utilized (along with podcasting) in a classroom setting (10).

In a 2004 article, Brian Alexander refers to wireless learning as “m-learning,” a term which has not caught on very well since then. Included in this world of educational technology, he suggests (29), are mobiles, laptops, phone cameras, PCs and tablets (such as the Kindle or the iPad). As WiFi becomes increasingly available, of course, this technology will become more and more prevalent as a learning tool, even out of the classroom. He goes on to say, many campuses (including Dartmouth University and American University) have employed “clouds” that give mobile access to the entire campus (30); this is actually more widespread today than it was when he was writing in 2004. The University of Phoenix and other online institutions even offer legitimate degree programs that are 100% online and have come to be widely accepted.

Cell phones are more private, as their screens are harder to view than PC and tablet screens, and can be held closer to the body, so the connection is more intimate. This fact could make phones useful in a learning situation where, for example, anonymous opinions are being solicited. Nevertheless, laptops and mobiles both have “become prosthetics for information, memory, and creativity” (30) in the classroom. Alexander suggests that high school and university labs are being replaced by “multiconfigurable ” classes (31).

The reason these developments are interesting is that, when properly used, cell phones can become an asset in the classroom, not a distraction. This puts some the burden on the students to not play games, scan email, post to social media or surf the web in class. Specially programmed mobiles could possibly be handed out to each student for each class, complete with programs, required reading and quizzes while personal phones could be banned, if necessary. However, as we adapt to the omnipresence of the technology, these problems may disappear, and students may become conditioned to seeing their phones primarily as learning tools.

For example, Nelsen and Webb (2011) write that Physical Education teachers are using texting for coaching purposes. They indicate that by means of group texting to an entire sports team and their parents, coaches can pass on schedule changes, short pep talks and training tips to

their players. This creates a more personal bond than actual meetings of the whole team — and saves time, as well. Additionally, they have a record of all the texts sent during the year.

Currently, this kind of communication is being taken even further in actual classrooms. Liz Kolb (2011) describes a seventh-grade history class in which students participate in brainstorming polls by texting responses that are projected directly onto a whiteboard and updated as the responses are sent. Opinions about slavery, states' rights *versus* federal rights, the election of Lincoln, social issues or financial issues, are posted (using *PollEverywhere.com*) and the whiteboard bar graph shows how the students are voting. Students also (anonymously) text explanations for the choices they made. They may then break up into groups to create 8- to 10-minute podcasts debating a couple of these different viewpoints, using their mobiles to search the internet for data. At the end of class, students snap a photo of the bar code posted by the classroom doorway, giving them access to both the *Gettysburg Address* and a short video from Ken Burns' *The Civil War*, which they can view on their phones, and compare their reactions and summaries in class the next day. Their homework assignment is also accessible through this same bar code (39-43).

What else can be done to harness such a powerful tool with which students are already so comfortable? Prensky (2010) suggests that the camera feature alone is a great idea for scientific data collection, video documentation and journalism, allowing students to gather evidence, collect and classify images and “follow progressions over time” (276). We can position phones remotely to capture images that would be impossible for a person to access (e.g., high up in a tree, observing bird behavior). There are also significant global advantages to having the ability to contact students in classrooms worldwide. Additionally, the ability of students to determine their precise location (via GPS) has clear applications in geography, archeology, architecture, science and math, among other disciplines (276).

Perhaps memorizing place names is not as useful today, when there is always an online map available at our fingertips. The savvy educator would be better off asking tougher questions, such as “Given what we know, what do these facts mean?” or “How do we interpret this

information?” In other words, students must develop the skills and be tested with the tools that they will be using when they are working in the “real world.”

More recently (2013), Mr. Prensky discusses rethinking the curriculum to accommodate the skills that students are bringing to the classroom today and will be bringing to the workplace tomorrow. He questions the need for skills we have previously taken for granted, such as perfecting handwriting, doing math without calculators, and other items in today’s elementary curriculum. Instead, we should consider the future needs of the students of the twenty-first century, such as teaching math with spreadsheets and requiring students to correctly identify and analyze a problem. One of his more radical ideas is replacing the traditional instruction of composition, which features long essays, with teaching writing that condenses thoughts into short sentences and tweets. Would that mean that papers like this one will be obsolete in the future? Not really. He has an interesting point, though. In our current system we don’t emphasize conciseness: “the tweet ‘*Romeo and Juliet* is an ironic, poetic, and emotional look at how misunderstandings and societal problems can turn innocent love into tragedy’ reveals a depth of understanding” that could prove valuable in an age of texting and tweeting (Prensky 2013).

Among other things, we could develop an app for test preparation (such as the SATs); and we could also teach students how to do research by introducing them to some of the excellent free scientific and governmental databases that are available on the web. Mr. Prensky goes so far as to encourage rethinking the entire K-12 curriculum, focusing on “Effective Thinking,” which would include creative and critical thinking, as well as math, science, logic, debate and even storytelling; “Effective Action,” which would include entrepreneurship, goal setting, short- and long-term planning, project management, and feedback; and “Effective Relationships,” which would include teamwork, ethics, and more. The remainder of this curriculum would focus on “Effective Accomplishment:” how students act on what they have learned (Prensky 2013). (Realistically, it will be very difficult to cut the political red tape and get past the bureaucracy involved to achieve such a serious curriculum change in American public education, badly as such a change is needed).

Effective Thinking would, for example, emphasize problem-solving skills and how these can be applied to the traditional disciplines of math, science, social studies and English. The historical development of ideas could be studied, with a focus on the thinking processes involved in creating those ideas. Critical thinking and analytics could be taught and students would learn from the earliest grades how to utilize government databases around the world, knowledge, sources and teamwork in their education— for example, by creating and analyzing their own surveys of student opinions in other countries on current topics (Prensky 2013). Thus, students of almost every age can connect with the world. We are living in what has repeatedly been called a “global village.” The sooner we learn to understand each other and appreciate each other’s opinions, the better.

Effective Action would follow the pattern of Steven Covey’s habits of highly effective people, emphasizing proactivity. Students could start companies, advertise them and develop social media strategies for them — and/or do the same thing for local businesses in their own community (Prensky 2013). Developing their own corporate identities, web sites, newsletters and other marketing materials would greatly improve their communication skills, as well. Basic economics could also be incorporated into this part of the curriculum, as students are always fascinated by money, but rarely have an opportunity to manage (or even “play manage”) it in the current educational system.

Effective Relationships would allow students to work one-on-one, in teams, in peer groups and in communities. This will help them develop the social skills necessary to cope in a world where communication is paramount. They could also study literature and social studies material that emphasize relationships. Finally, Effective Accomplishment would help the students assess the goals they have attained and develop a portfolio of projects that they have successfully completed, helping them to succinctly express these accomplishments in a résumé of their own capabilities (Prensky 2013).

This author personally would be very content to have been educated in schools that had focused on these essentials. While he does not believe that spelling, grammar, handwriting or

certain other traditional skills need to be totally eliminated, the curriculum outlined above would fully prepare any student for today's — and tomorrow's — real world of business and (even more importantly) life. After all, we do have SpellCheck (although good grammar skills are what keep us from going wrong with this tool, as well as giving us the ability to learn other languages), and we type our thoughts more than we write them. We use calculators and Google Maps, although a basic knowledge of arithmetic and geography would nicely supplement these tools. Apps are becoming something anybody can write, and students can make their own, as well as create podcasts, to fulfill certain assignments. Overall, however, the prevalence of this technology in the classroom confirms that the more relevant research question posed in this paper is: "How can mobile technology be better employed as vital learning tool?" As has been demonstrated, we are well on our way to finding the answer.

Conclusion

Much of the research in the early part of this century was focused on the problems of cell phone etiquette in the classroom and its impact on both the cell phone's owner and his or her classmates. In addressing the question, "How can cell phone misuse be prevented in the classroom?" it seems we may have been looking at the problem the wrong way around. The more relevant question, "How can mobile technology be better employed as a vital learning tool?" puts the emphasis on fully utilizing mobile phones, tablets and laptops to create an interactive learning environment, which are here to stay. Furthermore, students can be better prepared for the twenty-first century by following a new techno-centered curriculum, such as that suggested by Marc Prensky (2013), which focuses on "Effective Thinking, Effective Action, Effective Relationships and Effective Accomplishment." Along the way, technology can provide powerful research tools, interactive lessons, lectures, homework, scientific data, mathematical analyses, better communication with professors (as well as with people, worldwide), better teamwork and a host of other capabilities that we have not yet even considered.

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