

LETTERS

Use of Laptops and Other Technology in the Classroom

To the Editor. I read the article “Why We Banned Use of Laptops and ‘Scribe Notes’ in Our Classroom,”¹ and related many of the experiences shared by the author. As a faculty member (also teaching pharmacy law and ethics), it is very discouraging and frustrating to notice students surfing the Internet and/or sending e-mails during class. I especially liked one of the author’s course goals that stated, in part, that the course was to “give the student experience in listening to professional communication and discerning points of relevance and importance.”¹ However, I believe banning laptops in the classroom is not the best approach to meet these goals.

There are 3 reasons why I believe we should embrace technology (including laptops) and thus use it in our classrooms. The first reason is that this generation of learners, primarily the millennials (born from 1982 to 2002)² have grown up with technology and use it as a primary method of learning. Furthermore, they are much more adept at multitasking than any previous generation. Second, research has shown that if technology is “promised” and subsequently not delivered, pharmacy students will be less committed to the profession and to their college or school of pharmacy.³ Finally, our classrooms should resemble practice situations as much as possible, making the adult learners believe their learning is relevant and as realistic as possible.

At the American Association of Colleges of Pharmacy (AACP) teacher’s seminar 2 years ago, Patrick Jackson referred to the Millennial Generation as “digital natives.”⁴ This term refers to the fact that technology is a part of this generation’s everyday life, including how they learn. Many of my students prefer typing their notes as opposed to writing them. For one thing, they are much easier to organize. I know the students can type much faster (and more legibly) than they can write. When I was in pharmacy school, I spent so much time taking notes during class that I did not have time to communicate with my instructors. Dr. Jackson also described 4 rules when teaching millennials, one of which he called the “computer rule.”⁴ By this, he meant that we, as educators, should allow the students to help teach us, giving them greater ownership in their education. This places greater value on the students’ experiences with technology, experiences that can be shared to enhance the learning environment. As an instructor, if I can create activities/opportunities for learning that include the use of laptops, students will be more likely to engage in the class. Though there is no guarantee this will solve

the issue of students checking Facebook during class, it is a method by which to embrace the use of technology.

A psychological contract is the “perception by an individual that his or her organization has failed to fulfill promised obligations.”⁵ In a recent study, second-year pharmacy students who perceived that their college or school of pharmacy failed to fulfill perceived promises regarding physical facilities (a component of the psychological contract) were less likely to be committed to the profession and to their college of pharmacy.³ In essence, if a student is “promised” by the college of pharmacy that technology (eg, physical facilities) is state-of-the-art and that the technology will be utilized in the curriculum, failure to do so will result in the student perceiving a violation of his/her psychological contract. This may have long-term ramifications, such as decreased involvement in the profession and disgruntled alumni.

In pharmacy practice, technology is used everyday. The same should be true in classroom settings and our students should be surrounded with technology as they prepare for their future roles as pharmacists. As great as the technology is, it cannot replace personal interaction with patients. While I agree with the author that we should provide “undivided attention”¹ to patients, this is accomplished everyday in pharmacies across the country, the majority of which possess the very technology the author advocates banning. A recent article in the *Journal* summarizes my perspective better than I could have ever written. The authors state, “We should embrace technology and allow its use to the fullest and logical extent to enhance education, research, and service missions – while educating students to what is appropriate use and to think and read critically and ethically about new challenges that will be associated with advancing technologies such as cloud computing, mobile computing, and open content.”⁶

Alan R. Spies, PhD

The University of Oklahoma College of Pharmacy,
Oklahoma City Campus

REFERENCES

1. Fink JL. Why we banned use of laptops and “scribe notes” in our classroom. *Am J Pharm Educ.* 2010;74(6):Article 114.
2. Howe N, Strauss W. *Millennial Rising: The Next Great Generation.* New York, NY: Vintage Books; 2000.
3. Spies AR, Wilkin NE, Bentley JP, Bouldin AS, Wilson MC, Holmes ER. Instrument to measure psychological contract violation in pharmacy students. *Am J Pharm Educ.* 2010;74(6):Article 107.
4. Jackson PT. Millennial Learning Styles. Presentation at the 2009 Teacher’s Seminar at the AACP Annual Meeting in Chicago, Illinois, July 17, 2009. <http://www.aacp.org/meetingsandevents/AM/Pages/2009AnnualMeetingPresentationsandHandouts.aspx> Accessed September 15, 2010.

5. Robinson SL, Rousseau DM. Violation of the psychological contract: not the exception but the norm. *J Organ Behav.* 1994;15(3):245-59.
6. Johnson L, Levine A, Smith R, Stone S. The 2010 Horizon Report. Austin, Texas: The New Media Consortium; 2010. <http://wp.nmc.org/horizon2010/> Accessed September 15, 2010. Cited in Piascik P, Brazeau GA. Promoting a culture of academic integrity. *Am J Pharm Educ.* 2010;74(6):Article 113.

To the Editor. In a recent *AJPE* Letter, the author presented a number of reasons why certain types of technology have been “banned” from a course at his institution.¹ As members of a faculty that have discussed this topic extensively, we write this response to provide another viewpoint with respect to electronic devices. We acknowledge that the underlying issues in cases of misuse of technology surround either maintaining professional behavior or focus in the classroom. However, it is our belief that rather than banning potential distractions, our role as educators is to help students manage them. Classroom distracters have always been problematic in academia; widespread availability of technology has simply provided another medium. We believe that teaching students how to manage technology in a professional way, and how to focus their attention on the task at hand, prepares students for a career that fundamentally functions through wakes of distraction and multitasking, not to mention the adoption of continuous technological advances.

The use of electronic devices in the classroom has been an ongoing discussion at our institution. Until recently, our college did not have specific guidance for faculty members in terms of managing students’ use of technology in the classroom. Traditionally, individual faculty members have determined what was appropriate for their courses related to the use of electronic devices in the classroom. Student behavior identified by peers or faculty members as “unprofessional,” including technology issues, have been subject to review and discipline under the college’s honor code.

However, the issue of using technology in the classroom has been brought to the forefront of faculty members’ discussions alongside other institutional issues, perhaps the largest being a university initiative to “go green.” This initiative has resulted in an increase in the use of laptops in the classroom.

As an academic community, we realized the need to explore further the intertwining of our academic environment with our increasingly technology-dependent health care systems. Therefore, the student affairs committee underwent an internal exploration of faculty members’ (response rate 92%; 36/39) and students’ (response rate 43%; 356/831) beliefs, attitudes, and current practices with respect to using electronic devices in the classroom.

Most faculty members (94%) responded that students currently use electronic devices during class. Of the respondents, many (74%) have witnessed inappropriate or unprofessional conduct. This most often involved text messaging (55%), e-mailing (45%), or viewing non-related Web sites (55%). When asked how issues of technology should be addressed, responses included orientation (87%), student handbook (73%), course syllabus (63%), or a new separate policy (57%). A majority of student responders confirmed that they use an electronic device during class (54%). When asked their primary reason for doing so, students reported taking notes (46%), viewing course material (16%), and searching course-related drug references (27%). When asked about potentially inappropriate activities, 78% had sent a text message, 86% had checked e-mail, 56% had viewed a social network Web site, and 50% had viewed Web sites unrelated to the course.

The survey results indicated that technology use is widespread in the classrooms of our college and that students cite their primary reasons for doing so as being “course related.” Although both faculty members and students report the presence of misuse, we believe that the positive influence of technology outweighs the negative potential. Because our faculty members recognize the potential for misuse of electronic devices, they advocated for formally addressing the topic. Optional course syllabi language was developed with further discussion occurring during the syllabus introduction:

Use of laptop computers and handheld electronic devices (ie, phones, PDAs, iPods, etc) is permitted in class during specified times to assist learning. Any use of any device that leads to distraction from the learning for other students will not be tolerated. Inappropriate use may include viewing online content not related to the class (including social networking sites), text messaging, answering phone calls, viewing video, and listening to music on such devices. Repercussions for inappropriate use are at the discretion of the course instructor and may include (but are not limited to) dismissal from the class session, temporary confiscation of the device, and/or reporting the incident as an Honor Code violation.

Given our recent discussions and the results of our internal exploration and resulting policy recommendation, our philosophy has been to allow technology in the classroom. We believe that colleges should not only allow for, but also plan for, increased integration of technology in the classroom. Under prespecified, consistent guidelines and expectations, we should teach students how to appropriately use technology in professional ways to enhance patient care. We feel that ignoring classroom distracters does not help students learn to function in the current or future

health care environments. We are committed not only to teaching students the meaning of appropriate technology use throughout their coursework, but also to directly addressing it through the first-year pharmacy student orientation and student handbook. We believe that a proactive approach to educating students is the best approach for the issues presented by widespread technology.

While we agree that giving one's full attention to a patient is integral to the patient-provider relationship, pretending that technology is not used in the examination room or bedside is a fallacy. Pharmacists use a variety of electronic devices during patient interactions to document progress notes, access electronic medical records, and refer to drug information. The difference is that practitioners and students should be expected to use technology to improve patient care, rather than accessing unrelated activities (eg, e-mail, social networking Web sites).

We should be sending our students out into their professional careers with laptops and electronic devices – but only when they are confident in how to manage technology in a professional manner, with the intent of improving patient outcomes. How else can we make technological advances in health care a widespread reality rather than a lofty goal?

In conclusion, distractions in the classroom will always be present – now there is just greater variety and easier access. Our college has invited the use of technology along with a commitment to present the consequences of misuse. We intend to continue to monitor technology use in our classrooms, including student use of various types of electronic devices. If necessary, we will continue to conduct environmental scans of our academic community to help facilitate professional use of these devices. We strongly believe academia should be setting a pace for the future of our profession, not lagging behind it – technology included.

Andrea L. Kjos, PharmD, PhD

Andrew Miesner, PharmD,

Renaes Chesnut, EdD

College of Pharmacy and Health Sciences, Drake University

REFERENCE

1. Fink JL. Why We Banned Use of Laptops and “Scribe Notes” in Our Classroom. *Am J Pharm Educ.* 2010;74(6):Article 114.

In reply. We were delighted with the exchange of ideas and philosophies engendered by the letter to the editor published in the *Journal* regarding our course policy on use of laptop computers and scribe notes.¹ A number of those who read the item made direct contact to

share their views, including one correspondent who had heard reports at his institution (unnamed for this purpose) of students “watching porn on the Internet or engaging in online gambling.” Also, several letters have been submitted to the *Journal* in response to our letter, including one from a group of faculty at the College of Pharmacy and Health Sciences at Drake University, who provided a thorough and thoughtful piece to continue the exchange about this issue.²

Our policy position with regard to access to technology in the classroom is certainly not alone. The August 15, 2010, issue of *The Chronicle of Higher Education* bore an article about an instructor at the University of West Florida who had declared his summer course in English literature to be “technology-free.”³ More recently, the faculty at renowned St. John's College in Annapolis (a liberal arts college, not a professional school) voted “to discourage students from loading up Homer or Aristotle on their Kindles or iPads and bringing them to seminar.” While the faculty members there stopped short of a total ban on the use of technology, this policy sends the message to students that the faculty members there “are concerned that electronic reading devices also may present a distraction.”⁴

In the interest of fair balance and disclosure in this discussion, I should note that our college of pharmacy has adopted this policy statement:

Beginning in Fall 2010, incoming and all subsequent University of Kentucky College of Pharmacy students will be required to own and bring a mobile computing device (laptop or Tablet PC) to school.

Access to computers is vital for today's student pharmacist. S/he will need them for class registrations, paying tuition, checking email, completing and submitting class assignments, conducting research, accessing online drug information, and a host of other activities. Some, but not all, instructors will periodically conduct in-class activities that require mobile computers and access to online resources. The new College of Pharmacy Building was designed to accommodate high-speed wireless computing throughout the building. It is our belief that the requirement, coupled with the wireless environment in the new building, will allow our faculty and students to take advantage of the most current digital information in the teaching and learning environment.

Consequently, our course policy is an outlier even at our own college!

Fixation with technology and the anticipation of the impending arrival of a communication from an unknown source can spill outside the classroom in academe. This week I was conducting training sessions for newly appointed student members of the university appeals board at our institution. This is the university-wide entity to review cases or

disputes between students and faculty members over course grades, allegations of cheating or plagiarism, etc. Hence, this is an important role dealing with issues of great significance to the students who have filed appeals. Yet one of the new appointees (not a pharmacy student) was unable to complete the training session without frequently consulting her cell phone and even responding to text messages during the meeting!

Some of today's students seem conditioned to be unable to control the impulse to constantly communicate with others electronically. The adoption of the course rule helps to focus students' attention on the undesirability and inappropriateness of this in a professional setting. The old codger in me thinks "Isn't this a sad state of affairs with our students today that they need to have spelled out for them the notion that they should not be engaging in activities that interfere with the learning of others."

We have heard that some pharmacy employers have a policy or practice of prohibiting use of personal electronic devices by employees during working hours because of the potential distraction they present. Consequently, perhaps it can be argued that our course policy is actually helping to prepare students for such practice environments.

One of the hallmarks of the academy is the free exchange of ideas, a virtue that distinguishes it from any number of any other areas of employment. We are delighted that these course policies, and the piece discussing it, have generated just such a debate over this contemporary issue in higher education in general and pharmacy education specifically. Hopefully, faculty members across the country will consider these issues in a thoughtful manner, like our colleagues at Drake have done, and irrespective of where they end up on the issues, will make pharmacy education better for the exchange.

Joseph L. Fink III, BSPHarm, JD
University of Kentucky College of Pharmacy

REFERENCES

1. Fink III JL. Why we banned use of laptops and "scribe notes" in our classroom (letter). *Am J Pharm Educ.* 2010(Aug);74(6):Article 114.
2. Kjos AL, Miesner A, Chesnut R. Re: Why we banned use of laptops and "scribe notes" in our classroom (letter). *Am J Pharm Educ.* 2010;74(7):Article
3. Young JR. College 2.0: Teachers without technology strike back. *The Chronicle of Higher Education*, August 15, 2010. <http://chronicle.com/article/College-20-Teachers-Without/123891/> Accessed September 26, 2010.
4. Chapman P. No Homer on your iPads, please. *The Chronicle of Higher Education*, September 10, 2010. <http://chronicle.com/blogPost/No-Homer-on-Your-iPads-Please/26782/> Accessed September 26, 2010.

Including Motivational Interviewing Skills in the PharmD Curriculum

To the Editor. In their recent article, Goggin et al¹ described an exceptional multidisciplinary collaboration allowing third- and fourth-year pharmacy students enrolled in an elective course to develop effective patient-centered counseling skills. This was accomplished through interactive and individualized motivational interviewing training. As pharmacists interface more and more with patients, there is a clearly growing need for "well-designed courses that specifically focus on the development of brief and effective patient-centered counseling skills."¹ A general or elective communications course is not enough. The authors' model should be modified and incorporated into the core curriculum for all pharmacy students because it fosters confident and skilled students, as well as emphasizes the importance of stage of change and patients' confidence in succeeding.

A pharmacist's communication skills are essential to improve the use of medications by patients and ensure optimal therapeutic outcomes; however, current Accreditation Council for Pharmacy Education (ACPE) standards² allow faculty members and students to determine their own experiences. This results in all students having disparate opportunities to develop fully their individual counseling skills. Survey results of faculty members who were teaching communication skills in colleges and schools of pharmacy across the United States found there is a need for better structuring and assessment of communication skill building and experiences; and only 65.2% of the respondents reported covering motivational interviewing concepts in their communication course.³ Furthermore, not only does the current inconsistent instruction of communication techniques need to be addressed, but the deficit of directive, patient-centered counseling styles must be confronted as well. A good start to enhancing and standardizing pharmacist communication skills would be for the ACPE standards to call for incorporating this type of motivational interviewing model into all schools. This would result in consistent and comprehensive training for students.

The motivational interviewing course designed by Goggin and colleagues serves as a model for all colleges and schools of pharmacy to improve students' patient-centered counseling skills and cultivate patient self-efficacy.

Nicole D'Antonio, PharmD
University of Pittsburgh Medical Center, St. Margaret

REFERENCES

1. Goggin K, Hawes SM, Duval ER, et al. A motivational interviewing course for pharmacy students. *Am J Pharm Educ.* 2010;74(4):Article 70.

2. Accreditation Council for Pharmacy Education. Accreditation standards. http://www.acpe-accredit.org/pdf/ACPE_Revised_PharmD_Standards_Adopted_Jan152006.pdf.

Accessed July 25, 2010.

3. Beardsley RS. Communication skills development in colleges of pharmacy. *Am J Pharm Educ.* 2001;65:307-14.

Encouraging the Development of Emotional Intelligence in Pharmacy Schools

To the Editor. I was impressed with the research article “Pharmacy Students’ Perceptions and Emotional Responses to Aggressive Incidents in Pharmacy,” because of its pioneering objective to explore and report pharmacy students’ perceptions and emotions during these aggressive encounters. Currently, this is the first study to investigate this topic.¹ While I agree with the authors that teaching pharmacy students techniques for handling patients’ aggression needs to become part of pharmacy education, I believe the true priority should be helping pharmacy students recognize and develop their emotional intelligence.

Emotional intelligence is comprised of 2 skills, including personal competence (self-awareness and self-management), and social competence (social awareness and relationship management). People with higher emotional intelligence tend to be more successful in identifying and managing emotions because they understand the power of a response and have developed techniques for managing various emotions. Besides emotional intelli-

gence (EQ), each person also possesses intelligence (IQ), and a personality. Of the 3, emotional intelligence is the quality that has the greatest capacity to change.² Therefore, creating a curriculum that encourages the recognition and development of emotional intelligence will aid students during patient encounters. Emotional intelligence is a concept rarely discussed in pharmacy school, yet is such a vital tool for success as a pharmacist. I can attest to this gap in education as a recent 2010 pharmacy graduate.

“Between stimulus and response, there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.”³ Becoming aware of one’s emotional intelligence is an important step in understanding how to manage one’s behavior. In a world where there are increasing demands on pharmacists, colleges and schools of pharmacy need to develop educational programs that engage and teach strategies for the development of emotional intelligence.

Giavanna Russo-Alvarez, PharmD

University of Pittsburgh Medical Center, Saint Margaret

REFERENCES

1. Rahim H, Shah B. Pharmacy students’ perceptions and emotional responses to aggressive incidents in pharmacy practice. *Am J Pharm Educ.* 2010;74(4):Article 61.
2. Bradberry T, Greaves J. *The Emotional Intelligence Quick Book.* New York, NY: Simon & Schuster; 2005.
3. Frankl V. *Man’s Search for Meaning.* Boston, MA: Beacon Press, 2006.