Students Turn Their Cellphones On for Classroom Lessons

New Academic Uses Challenge Restrictions

By Andrew Trotter

New educational uses of cellphones are challenging the "turned off and out of sight" rules that many districts have adopted for student cellphones on campus.

A growing number of teachers, carefully navigating district policies and addressing their own concerns, are having students use their personal cellphones to make podcasts, take field notes, and organize their schedules and homework.

And some recent, positive examples of how the phones are being used for academic learning may eventually lead to more nuanced policies. Indeed, more educators are concluding that cellphones may be the only realistic way their schools can offer the 1-to-1 computing experiences that better-funded schools provide with laptops.

"In our district, especially at high school, students have a cellphone on them at all times, just like a pencil—it's an underused tool," said Rosemary Miller, the technology-integration specialist for secondary schools in the Buhler, Kan., public schools. "We don't have a computer for every kid, as some school districts do."

Ms. Miller has helped teachers at Buhler High School learn how to use Gcast, a free Web-based service that allows anyone to create a page—as well as more specialized "channels" and playlists—to host podcasts. Students are given a phone number and a personal identification number; they call in using their cellphones and record an audio file that is posted directly on the Web page, Ms. Miller said.

At Buhler High, a Spanish teacher who is "very low-tech," according to Ms. Miller, created a channel for her Spanish 3 and 4 students to call from outside of school and record themselves speaking in Spanish. "She had them select an excellent Spanish poet; they got on their cellphones and said, 'Me llamo' and their name, and [in Spanish] 'I'd like to present this poet, Pablo,' and then they read the poem."

Similarly, a French teacher had students make podcasts about recipes for French dishes, such as crème brûlée, and an English teacher asked her students, for a unit on War in Literature, to use their cellphones to interview someone who has experienced war.

"I guess this is replacing when you used to take a tape recorder and talk to your grandpa about the war," Ms. Miller said.

Another application Ms. Miller has had her teachers try is using the cellphone as a classroom-response
device. Polleverywhere.com lets anyone post a poll or multiple-choice questionnaire that others can complete using cellphone texting.

"It's kind of like the cellphone as clickers," Ms. Miller said, referring to the hand-held devices provided with proprietary classroom-response systems, which have a hefty price tag. One fact that she learned by doing the demonstration, however, was that many of her teachers did not know how to send text messages.

'Best Resources Available'

Podcasting and classroom-response systems are among the more than 100 uses of cellphones that educator Liz Kolb has collected, and in some cases invented, for her book *Toys to Tools: Connecting Student Cell Phones to Education*, published in October.

"There weren't any ideas for a long time about using cellphones at school," said Ms. Kolb, a doctoral candidate at the University of Michigan in Ann Arbor and an adjunct professor at Madonna University in Detroit. She confesses that, in her earlier job as a high school technology coordinator in Ohio, she "was someone who wrote policies against cellphone use."

Educators note that restrictive cellphone policies—even blanket bans—are born of worrisome reports or direct knowledge that some students have used cellphones to cheat, disrupt classroom activities, bully, communicate with adults they shouldn't be talking to, and take unauthorized or inappropriate images of teachers or students for uploading to the Web.

Ms. Kolb, however, said she had an "epiphany" when she learned to produce a podcast, leading to the two-year project to write the book. "We never had enough funds for technology in school. But the moment I tried that cellphone audio blog, I immediately realized that our students have one of the best resources available to them," she said.

One key to the cellphone's usefulness is the wealth of Web-based services that have cropped up recently, not necessarily marketed for schools but generally free in their basic versions. "Of course, they all have premium upgrades, or if they don't have upgrades, you see ads," Ms. Kolb cautioned.

In addition to podcasting and polling, other Web services include messaging sites that teachers can use to assign homework or give students quizzes. In the latter example, students can call in or text their responses, which can be stored on the site so teachers can evaluate students' progress over time. Those services, incidentally, do not offer the security and error-free performance that would be needed for high-stakes testing, but are fine for giving teachers' quick takes on classroom learning, according to experts.

In addition, Web-based organizers are available to bail out disorganized adolescents. For example, Soshiku, a service launched in September 2008 by Montana 17-year-old Andrew Schaper, lets users log their school assignments via e-mail or text messages. Students, including partners in joint projects, can arrange to receive "assignment due" notices to their cellphones or e-mail accounts.

**Beyond Classrooms**

Cellphones with cameras also have great potential for simple data collection. They can enrich fieldwork or field trips by allowing students to snap images of, say, leaves, for later identification. Students also can snap pictures of museum exhibits and placards to fuel classroom discussions.

"Mobile citizen journalism" is another popular trend that schools can harness, Ms. Kolb said, though she did not know of any school newspapers doing it extensively yet. "Schools can definitely set up
their own mobile journalism text-messaging numbers," so students who are traveling can phone in reports and images, especially if they find themselves in the midst of breaking news.

Middle schools and high schools have been the main dabblers in cellphone-learning experiments, but even some elementary schools are getting their toes wet.

Ted A. Lysiak, the director of instructional technology for the 6,300-student Euclid, Ohio, district, recently held training on Gcast for technology-resource teachers at several elementary schools.

This winter, he said, cellphones will accompany students in grades 3 through 5 on field trips—to a concert and to an arboretum—though firmly under the control of a teacher. Students will have a list of questions; they will take turns calling in their responses and reflections to a Gcast page.

"Ninety-five percent of cellphone activities are better done outside the classroom," noted Ms. Kolb, adding that emphasizing outside activities means that students can spend classroom time analyzing the content that has been collected or recorded, rather than fussing with technology issues. Emphasizing off-campus cellphone use also helps teachers work within the more restrictive school district rules.

'Smartphone' Potential

Standard cellphones, of course, are dowdy relatives to smartphones, such as iPhones and Blackberries, that today get the bulk of popular attention and advertising.

Ms. Kolb said she avoided applications of "smartphones"—basically, powerful Internet-connected computers—because their high cost raises serious questions about budget and the equity of access.

Even with standard cellphones, she said, educators must make sure that all students understand the price structure of their calling plans, including the number of text messages that they can send and receive at no additional charge.

"Philosophically, we don't want to ask the family to pay that sort of thing," she said. When not all students have cellphones, she said, educators should encourage sharing.

Similarly, educators need to exercise tact with regard to assignments using cellphones. "You don't want middle school students coming home from school [and telling their parents] that they need a cellphone," Ms. Kolb says.

Fortunately, many cellphone ideas can be implemented using regular telephones or home computers, too.

Because smartphones can be loaded with full-featured computer programs, plenty of software companies are working on educational applications. "I really do think smartphones are going to be one of the real game-changers in education in next five to 10 years," said Mr. Lysiak, "because of their [declining] cost and their capabilities."

Once smartphones become widely affordable, he said, "students are walking around with 24/7 connection to the world that they can use for research purposes, publishing purposes, and connecting purposes."

Equally important, he said, harnessing mobile communications will help schools stay relevant to students.

"In our district, we really feel students are bored with the instruction they are getting," he said. "It's not that instruction has become boring, it's that the outside world they interact with has become so
engaging, but we haven't kept up."

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