Cell Phones in American High Schools: A National Survey

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Abstract

A survey instrument to determine school policy and practice regarding cell phone use by teachers and students was developed using a literature review, a panel of experts, and then a pilot study with typical respondents. The survey was mailed out randomly to 200 high school principals representing all 50 states. The return rate was 56 percent with responses coming from all regions of the country. The findings include: (1) A majority of high schools (districts) had policies in place, (2) parents generally supported the school's cell phone use policy, (3) classroom teachers used cell phones at school for nonschool-related business, (4) disciplinary action for inappropriate cell phone use by students ranged from a mild reprimand to confiscation of the cell phone, and (5) the potential misuses of camera phones in high schools has not been fully addressed by many schools. Because cell phone use has become a part of American culture, and this technology is constantly being upgraded, school or district policies should be revamped periodically to stay abreast of this phenomenon. Specific recommendations are put forward.

Technology and Policy

The expansion of cell phones during the past decade has made it commonplace for students and teachers to have cell phones in the school setting. Data from 2004 indicated that 58 percent of 6th –12th graders have a cell phone and 68 percent of students regularly bring cell phones to school ("NetDay's 2004," 2005). The number of cell phones in the United States rose from 1.2 million in 1987 to 145 million in 2002 (Danforth, 2003). No reliable estimate has been found for teachers, but anecdotal data indicate that a majority of classroom teachers have access to a cell phone.

Educators, administrators, and school boards are concerned about many issues related to the use of cell phones at school: distractions to the learning environment (Gilroy, 2003), cheating on tests and quizzes through text messaging (Meer, 2004), cyber bullying students by sending nasty messages ("Bullying shoots," 2005), phoning in bomb threats (Danforth, 2003), using calculator

functions to cheat on math tests (Hurst, 2004), and jamming phone lines in the event of an actual emergency ("Calling cell," 2002). Many parents believe that cell phones would be especially useful in an emergency situation. However, 68 percent of police officers assigned to schools believe that cell phone use would actually hamper school safety in a crisis (National School Safety and Security Services, 2005).

In addition, 21 percent of students who bring cell phones to school have video/photo capabilities on their phones (Carroll, 2004). These video/photo capabilities present additional concerns. One issue is that camera phones can be used to take photographs of quizzes or exams and transmit them to classmates (Hurst, 2004). An especially egregious problem is the use of camera phones to take embarrassing photographs of classmates in private areas (e.g., restrooms or locker rooms) and share them with others electronically. This technology raises legal issues of privacy, sexual harassment, and theft of proprietary information (Carroll, 2004). This rapidly evolving problem has led the Montana High School Association to strongly recommend that schools develop policies to prohibit the use of camera phones, especially in locker rooms (Carroll, 2004).

Cell phones also do offer advantages. Parents want their children to have cell phones due to their involvement in activities (e.g., athletics) or to assuage safety concerns (Dianis, 2004). They can be important for school supervisors who are at crossings or playgrounds who may need to call for help quickly in case of an emergency (Galley, 2000), and a cell phone may facilitate students in planning after-school work and other activities ("The right to ring," 2004). Additionally, the camera phone can have a number of educational benefits. The camera capability can be used to record field trips or school events, to enhance reports with visuals, and to develop photo essays (Dyrli, 2004).

The purpose of this study was to measure, through a national survey, administrators' perceptions of cell phone issues and related policies for students and teachers. Many administrators and school board members are familiar with the cell phone policies of their own districts as well as surrounding districts. This study also allows them to compare their policies with national trends.

Methodology

A literature review was conducted to determine the issues and controversies associated with the use of cell phones in school settings, resulting in a large number of potential items identified for possible inclusion. The investigators then developed a draft of the survey. A panel of experts (building principals) was assembled to review the draft survey. The panel consisted of 11 principals who were selected to represent both rural and suburban settings along with small and large schools. The panel of experts provided feedback on the clarity, purpose, and comprehensiveness of the survey. Using their feedback, the survey was modified and a relatively small pilot study was conducted using an intact group of 15 educators associated with the university. The pilot study revealed no problems with the survey instrument. The survey was then finalized with 19 items, divided into three types of responses: yes/no, agree/disagree, and short answer.

The survey was mailed to high school administrators in all 50 states. Schools and administrators were randomly selected from *Patterson's American Education* which lists every U.S. school and its current address, grouped by state. Using a random number generator, four high schools from each state

were chosen, and a survey was mailed to the principal of each chosen school. A follow-up survey was mailed to schools that didn't respond to the first mailing.

The statistic used for this study was a chisquare with a .01 level of significance. For questions 1-8, the chi-square tested goodness of fit using the yes/no responses. For questions 9-15, two items (strongly agree/agree) were grouped together, and the other two items (strongly disagree/disagree) were grouped together. In this case, the chi-square tested goodness of fit using the agree/disagree responses. For questions 16-19, the open-ended responses, these were tallied to determine any common themes or patterns.

Results

The initial mailing yielded 77 valid responses. The follow-up mailing yielded 35 additional responses for a total of 112 responses. This represents a response rate of 56 percent. The returned surveys represented 46 states (12 southern states, 11 northern states, 11 midwestern states, 10 western states, and 2 noncontiguous states).

Questions 1-8

As shown in Table 1, four of the eight yes/no questions met the .01 level of statistical significance and are examined below:

Question 1: Does your school/district have a written policy regarding cell phones?

Table 1. Responses of High School Principals to Information Questions

	Yes	No	Sig.
Does your school/district have a written policy regarding cell phones?	84 percent	16 percent	**
Does your school permit cell phone use by teachers?	78 percent	22 percent	**
3. Does your school permit cell phone use by students?	24 percent	76 percent	**
4. Does your school allow students to leave cell phones on silent mode?	47 percent	53 percent	
5. Do teachers have access to a hard-wired phone in their classrooms?	56 percent	44 percent	
6. Do you believe that teachers who utilize cell phones use them only for school-related business?	6 percent	94 percent	**
7. Does your school district supply cell phones for administrators?	54 percent	46 percent	
8. Do bus drivers have cell phones supplied by the school/district for safety?	47 percent	53 percent	

^{**}p < .01

Eighty-four percent of the responding principals indicated that their schools did have a written policy on the use of cell phones.

Question 2: Does your school permit cell phone use by teachers? Seventy-eight percent of the responding principals indicated that their schools allow teachers to use cell phones.

Question 3: Does your school permit cell phone use by students? Only 24 percent of the responding principals indicated that their schools allowed students to use cell phones.

Question 6: Do you believe that teachers who use cell phones use them only for school-related business? Only 6 percent of the responding principals indicated that cell phones were used by teachers primarily for school-related business.

Questions 9-15

As shown in Table 2, all seven of the agree/disagree questions met the .01 level of statistical significance. The questions are examined below:

Question 9: Direct instructional time is lost due to cell phone use by teachers. Twenty-two percent of responding principals agreed with this statement, whereas 78 percent disagreed with the statement.

Question 10: Teachers having cell phones improves school safety. Seventy-three

percent of responding principals agreed with this statement, whereas 27 percent disagreed with the statement.

Question 11: Teachers having cell phones facilitates prompt teacher-parent communication. Thirty-three percent of responding principals agreed with this statement whereas, 67 percent disagreed with the statement.

Question 12: Major incidents of violence (e.g., Columbine High School) influenced this school's/district's policy on cell phones. Twenty-one percent of responding principals agreed with this statement while 79 percent disagreed with the statement.

Question 13: Parents are supportive of the school's overall cell phone policy. Eighty-two percent of responding principals agreed with this statement, whereas 18 percent disagreed with the statement.

Question 14: Cell phone use by teachers adversely affects the sustained focus of teachers on the classroom/students. Thirtyone percent of responding principals agreed with this statement while 69 percent disagreed with the statement.

Question 15: Text-messaging features are a problem/potential problem during tests and examinations. Eighty percent of responding principals agreed with this statement while 20 percent disagreed with the statement.

Table 2. Responses of High School Principals to Judgement Questions

	Agree	Disagree	Sig.
Direct instructional time is lost due to cell phone use by teachers.	22 percent	78 percent	**
10. Teachers having cell phones improves school safety.	73 percent	27 percent	**
11. Teachers having cell phones facilitates prompt teacher-parent communication.	33 percent	67 percent	**
12. Major incidents of violence (e.g. Columbine High School) influenced my school's/district's policy on cell phones.	21 percent	79 percent	**
13. Parents are supportive of the school's overall cell phone policy.	82 percent	18 percent	**
14. Cell phone use by teachers adversely affects the sustained focus of teachers on the classroom/students.	31 percent	69 percent	**
15. Text-messaging features are a problem/potential problem during tests and examinations	80 percent	20 percent	**

^{**}p < .01

Ouestions 16-19

The patterns and themes of the four openended questions are presented below:

Question 16: Principals were asked, "What is the exact policy if a student's cell phone rings during class?" By far, the most common response was immediate confiscation of the cell phone. The penalties were quite broad ranging from confiscation for the remainder of the class period to confiscation for the entire semester. Other reported consequences included: Saturday detention, 3-day suspension, and cell phones returned only to parents.

Question 17: Principals were asked, "What is the exact policy if a teacher's cell phone rings during class?" For most respondents, the school's cell phone policy did not address this issue. The second most frequent response was some type of administrative warning.

Question 18: Principals were asked, "Approximately what percent of your school's teachers, if any, misuse cell phones for personal business?" The percentages of teacher misusing cell phones during instructional time ranged from 0 percent to 100 percent. However, the vast majority of principals rated the problem at 5 percent of teachers or less.

Question 19: Principals were asked, "How has your school addressed the issue of camera phones affecting students' privacy (e.g., in a school locker room, at a nurse's office, or for uploading videos to the web) or being used by students to take photos of a test for friends?" The most common response was that students should not have a phone out during school hours. The second most common response was that many schools have not yet addressed the potential misuse of camera phones.

Discussion

Cell phones have become an integral part of our society, and like most technologies, they have both positive and negative aspects. With technology expanding so rapidly, it can outpace American schools' ability to make appropriate policies.

An examination of the responses to the information questions found in Table 1 revealed the following factors. Almost all schools/districts have a written policy regarding cell phones; however, these policies primarily address students' use of cell phones. As cell phone features increase (e.g., storing documents on them), the policy will likely need to be revisited. Almost all schools permit cell phone use by teachers. This is potentially problematic in that many companies (e.g., Microsoft) are either banning or putting significant restrictions on employee's use of a cell phone during working hours. Perhaps the most common feature of school cell phone policies is that students are prohibited from using the devices at school, and in some cases even bringing cell phones to schools is strictly disallowed. Responding principals believed that teachers used cell phones for purposes other than school-related business. This would be acceptable provided the calls are made during their planning/free periods, at lunch, or after the school day ended. Optimally, however, personal business should be performed after official school hours.

The judgment questions in Table 2 revealed the following factors. Responding principals believed that instructional time is not lost because of teachers' use of cell phones. Teachers who possess cell phones can improve school safety. This issue would be especially true when teachers perform outside-of-the-classroom duties. They could rapidly contact school and public safety officials in the event of an accident or emergency. Teachers having cell phones does not facilitate parent-teacher communication. This is not surprising since teachers have had regular access to telephones for many years when it became necessary to contact a parent. The addition of cell phones probably does not change this dynamic. Major incidents of violence (e.g., Columbine High School) did not influence a school district's policies on cell phones. It is likely that many school districts developed cell phone policies as the use of cell phones became pervasive in the culture and began to have an impact on students' work and the classroom. School safety was probably only one factor, among many, that led to the development of cell phone policies. Parents are generally supportive of the school's cell phone policy. Most district policies restrict cell phone use by students during the school day, and parents seem to believe this is appropriate. Parents seem to

agree that cell phone use could be a significant distraction during instructional time. Sustained focus of teachers on students is not affected by the teacher's own use of a cell phone. This correlates with the findings on the previous question concerning the potential affect that a teacher's cell phone use can have on instructional time. Text messaging features are problematic during tests. Text messaging can take place without teachers being aware of it because phones are becoming smaller and more easily obscured. In addition, many students are extremely rapid and proficient at text messaging and could share answers on both multiple choice and essay type items.

The open-ended questions revealed an interesting range of responses. Some conclusions that may be drawn include the following: in general, many district administrators have codified their response when a student's cell phone rings during class, but they have not addressed this same issue for teachers; principals possibly may be hesitant to address the staff's use of cell phones because of their own personal use of this technology; and in many districts, the issue of camera phones have simply not been addressed.

Although not statistically significant, it was somewhat surprising on the basis of Question 8 that the number of districts that do supply cell phones to bus drivers (n = 48) was smaller than the number of districts that do not supply cell phones to bus drivers (n = 55). Time on a school bus is clearly a time when the students are less supervised and away from established methods of communication. If a school district were extremely conscious about safety issues, bus transportation would likely be a key area where cell phones could potentially affect students' safety.

Cell phones are now an accepted part of the school culture for teachers and students. Most schools or districts *do* have policies in place, and principals believe that parents are generally supportive of the approved policies. The findings in this study run contrary to a number of national incidents in which parents opposed the school's restrictive policy on cell phone use (e.g., Broward County, FL; Salinas, CA; Crosby, TX). Parents seem to believe that cell phones improve the safety of their children, but this may be more an issue of culture and convenience.

The dichotomy between a principal's perceptions that cell phones are used by teachers for issues other than school-related business and their perception that this has no impact on instructional time is difficult to reconcile. It seems unlikely that teachers' use of cell phones for personal business would not to some extent compromise a sustained focus on instruction. In addition, anecdotal evidence suggests that many teachers make and receive phone calls during class time.

The fact that almost all principals listed a specific consequence for a student's cell phone ringing during class indicates that this is an ongoing problem. A student's cell phone ringing during class time would almost certainly have a negative impact on instruction.

Industry trends indicate that within the next year a majority of cell phones will have photo capability as a standard feature. Because the survey revealed that a number of schools have not addressed the issue of camera phones in their current policy, this is an area that will have to be dealt with in the near future.

The capabilities of cell phones have been evolving quite quickly. During the past few years, cell phones have gone from a simple communication tool to include a calculator, a clock with alarm, games, a video function, a calendar, an FM radio, a music player, a picture ID, streaming multimedia, a speaker phone, a hard drive, and a camera with flash. If cell phones mimic other technologies, these features will only increase. Schools will be pressed to stay ahead of this fast-moving technology. A policy on cell phone use made only a few years ago may be outdated by today's technology. As new technology emerges, policies must grow and change as well. This presents an ongoing challenge for school leaders.

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Appendix 1

For questions 1-8 circle Yes or No:

Yes	No	1.	Does your school/district have a written policy regarding cell phones?
Yes	No	2.	Does your school permit cell phone use by teachers?
Yes	No	3.	Does your school permit cell phone use by students?
Yes	No	4.	Does your school allow students to leave cell phones on silent mode?
Yes	No	5.	Do teachers have access to a hard-wired phone in their classrooms?
Yes	No	6.	Do you believe that teachers who utilize cell phones use them only for school-related business?
Yes	No	7.	Does your school district supply cell phones for administrators?
Yes	No	8.	Do bus drivers have cell phones supplied by the school/district for safety?

For questions 9-15 circle SA for strongly agree, A for agree, D for disagree and SD for strongly disagree:

SA A D SD	9.	Direct instructional time is lost due to cell phone use by teachers.
SA A D SD	10.	Teachers having cell phones improves school safety.
SA A D SD	11.	Teachers having cell phones facilitates prompt teacher-parent communication.
SA A D SD	12.	Major incidents of violence (e.g. Columbine High School) influenced my school's/district's policy on cell phones.
SA A D SD	13.	Parents are supportive of the school's overall cell phone policy.
SA A D SD	14.	Cell phone use by teachers adversely affects the sustained focus of teachers on the classroom/students.
SA A D SD	15.	Text-messaging features are a problem/potential problem during tests and examinations.

For questions 16-19 please answer briefly:

- 16. What is the exact policy if a student's cell phone rings during class?
- 17. What is the exact policy if a teacher's cell phone rings during class?
- 18. Approximately what percentage of your school's teachers, if any, misuse cell phones for personal business?
- 19. How has your school addressed the issue of camera phones impacting student privacy (e.g. in school locker room, nurse's office, uploading videos to the web, etc..) or students taking photos of a test for friends?

