Students' Perspectives and Use of Personal Mobile Devices

in the High School Classroom

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Introduction and Orientation to Topic

Today's students use technology as part of their everyday lives. Mobile technology allows them constant access to the internet as well as instantaneous communication options.

According to Srivastava:

In many industrialized countries, and in some developing ones too, the mobile has become the principal mode of socializing for teenagers. Young people use the mobile primarily to sustain and enhance their social networks. It allows them to maintain their status, in terms of age, gender, class, peer group and so on. Moreover, the ownership of a mobile is an important step in a child's process of becoming independent from its parents and teachers: it is a medium for the assertion of its own identity and autonomy. (p.120-121)

While many use this technology strictly for social purposes, some students and their teachers are starting to see the value in using mobile technology in the classroom. Due to the distracting nature of text messaging and social media apps, however, many schools have banned mobile devices from their campuses.

Last year's freshman class along with all of the students from our feeder middle school received school-issued laptops last year. While many teachers embrace the idea of this technology, some find the laptops just as distracting to student learning as cell phones. Through this study the researcher hoped to discover students' perspectives on the use of mobile devices in the high school classroom.

Purpose Statement

The purpose of this study was to research high school students' perspectives on using mobile technology in the classroom. The first goal of the study was to establish how high school students are currently using their mobile devices. The second goal was to investigate the students' perceptions as to whether mobile technology is helpful or distracting during school. The third goal was to explore the attitudes of students regarding appropriate times to be on their devices.

Research Questions

1. How are high school students currently using their mobile devices?

2. Do high school students believe that mobile devices can be used for learning?

3. What are the perceptions of high school students regarding appropriate and inappropriate times to be on their mobile devices?

Importance of the Study

As the school system invests in more technology for the high school it will be important to know what the students are using it for and whether they are using it for the intended purpose of enhanced student learning. If the students view the school laptops as just a way to socialize with friends and listen to music, then the school will need to make adjustments to its policies regarding laptop use. Studying the students' perspectives on the use of mobile devices in the classroom will help the school system and its teachers better plan for the use of these devices in student learning.

This study will also serve to fill a gap in the current literature. While it is possible to find studies claiming to be about high school students' use of mobile technology, most are actually surveys of college students' perspectives of their former high schools. This study will be done directly with high school students in order to get a current perspective.

Definition of Terms

Mobile technology/Mobile devices – "devices such as cell phones, smart phones, netbooks, laptops, tablets, iPods, iPads, ereaders such as the Kindle, Nook, etc., palms, Treo, and other devices that are typically lightweight, portable and connect to the internet." (Franklin, 2011)

Literature Review

Today's students carry the world in their pockets. With advancements in smart phone technology, students are able to access information from anywhere at any time. Although many schools are still convinced that cell phones and other mobile devices are a distraction, other schools are experimenting and trying to use these devices to their advantage. Can students, who are accustomed to using their mobile phones for socializing, make the transition to using them as a learning tool during the school day? The research findings suggest that it may be possible.

Cell phones have become a part of everyday life. So much so that according to Kinnunen, Suopajarvi, and Ylipulli (2011) it has become an extension of the body. We

wear our cell phones as accessories and personalize them to show the world who we are

(Srivastava, 2005). In many educational settings, however, the use of cell phones and

other mobile devices is strictly forbidden.

As the use of cell phones, iPods and e-readers with networking capabilities,

tablets, and laptops have become more prevalent, so have the rules restricting them in

schools. In many schools cell phones are banned completely. Some schools allow

students to bring their cell phones to communicate with parents before and after school,

but the phones are to be turned off and kept in lockers during the school day. In others

the use of mobile devices is allowed, but the schools' networks restrict users from

visiting specific sites such as Facebook and Twitter which are considered to be

distracting to students.

Many teachers and administrators consider mobile devices as a distraction. A

study by Jackson (2013) revealed that many students also feel this way. Seventy-six

percent of the college students surveyed admitted that mobile phones were "mostly a

distraction". In addition they described mobile phones as a distraction to themselves, a

distraction to others, and disrespectful to the teacher. Furthermore, many admitted to

using their devices for personal business and socializing instead of academics.

Student awareness of when it is appropriate to use mobile devices may be a step

in the right direction, though. Srivastava noted that a 2003 survey by Nokia found that

89% of mobile users believed that people need to adopt better "mobile etiquette". More

recent studies show that our etiquette while using mobile devices may be improving.

Charles (2012) found that the three high school students she interviewed and observed

had their own self-imposed boundaries of when it was disrespectful to be on their phones.

The students were also aware of times that their phones would be distracting to their

learning and concentration in class. Engel and Green (2011), in their pilot use of cell

phones in a pre-calculus class, allowed the students to determine the rules of how and

when their phones should be used. The students also created their own set of

consequences for breaking those rules.

Now that students are beginning to understand the difference of when to socialize

and when to use their mobile device as a tool, educators need to find ways to actively

engage students in learning through the use of these devices. Franklin (2011) points out

that educators must use mobile content to enable learners and extend learning beyond the

walls of the classroom in order for that content to be effective. Using the devices simply

for listening or reading is no more effective than lecturing or having the students read

from textbooks. If educators are going to use these devices in their classrooms, both the

teacher and his or her students must be clear as to the purpose of using them.

Educators must also set clear rules and expectations regarding the use of mobile

devices. This can be done with the help of the students, as Engel and Green

demonstrated, or by the teacher. The college students in Jackson's study expressed that

they would like their professors to clearly state and enforce their policies. They

embraced the idea of being able to use their devices for academics with restrictions on

socializing and even recommended penalties such as reduced participation grades for

using them inappropriately.

Methodology

Research Design

This research study used a cross-sectional survey design to examine current attitudes, beliefs, and opinions of the sample group. Data was collected from participants by means of a questionnaire in October of 2014. After obtaining the proper permissions from the school system and the participating high school a letter was sent home to the parents of all sophomores to obtain parental permission for their child's participation in the study. Questionnaires were distributed to those students participating in the study during their advisement period. The questionnaires was distributed and collected by teachers with no connection to the study. The results of this study will help to determine students' perspectives on the use of mobile technology in the classroom.

Participants

Participants in this study were sophomores at a rural high school in northwest Georgia. Students were aged from approximately 14-16 years old. Of the 81 students surveyed, 39 were male and 42 were female. All 81 participants were high school sophomores. 75 of the 81 students surveyed currently have a cell phone and 77 had used a school laptop. Most of these students have had access to school-issued laptops as freshman and currently have access to them in classroom sets as sophomores. As all sophomores meet weekly in their homerooms for an advisement lesson, the questionnaire was administered during this time.

Data Sources and Collection

Before beginning the research, the researcher sent home parental and student consent forms informing them of the intent of the research and the confidentiality of their participation to all of the sophomore advisement classes. Students were asked to participate by taking an anonymous questionnaire. Participation was voluntary and in no way be tied to their grades. The forty-six (46) question survey was administered and collected by the sophomore homeroom teachers, who have no connection to the study. The researcher had hoped to have over one hundred participants, but only eighty-one returned their permission forms.

The questionnaire (Appendix A) contains demographic information that was used to describe the sample and questions about students' current technology use, interest in using mobile technology for learning, perceptions of whether mobile technology is helpful or distracting, and perceptions of when it is appropriate to be on their mobile devices. A variety of question types was used, including Likert scale items and true/false statements. The data was then scored for analysis.
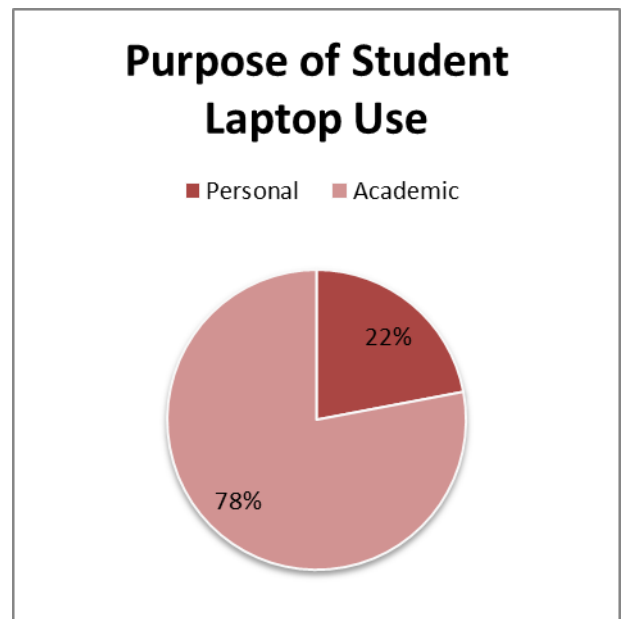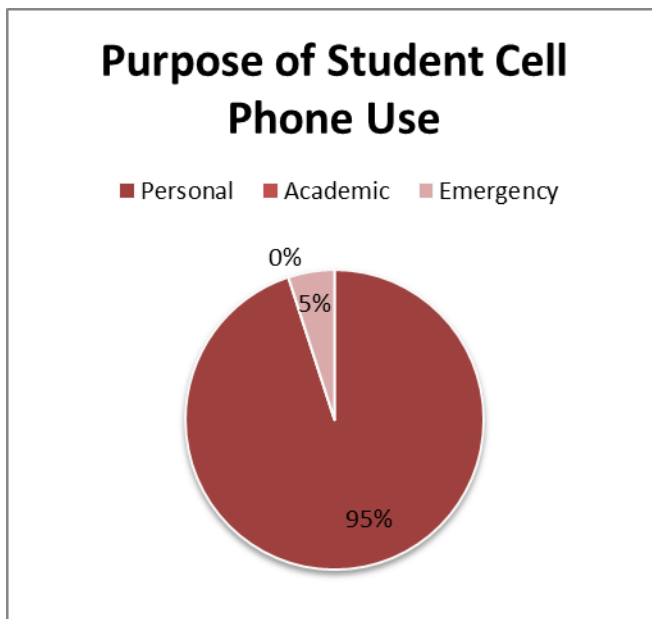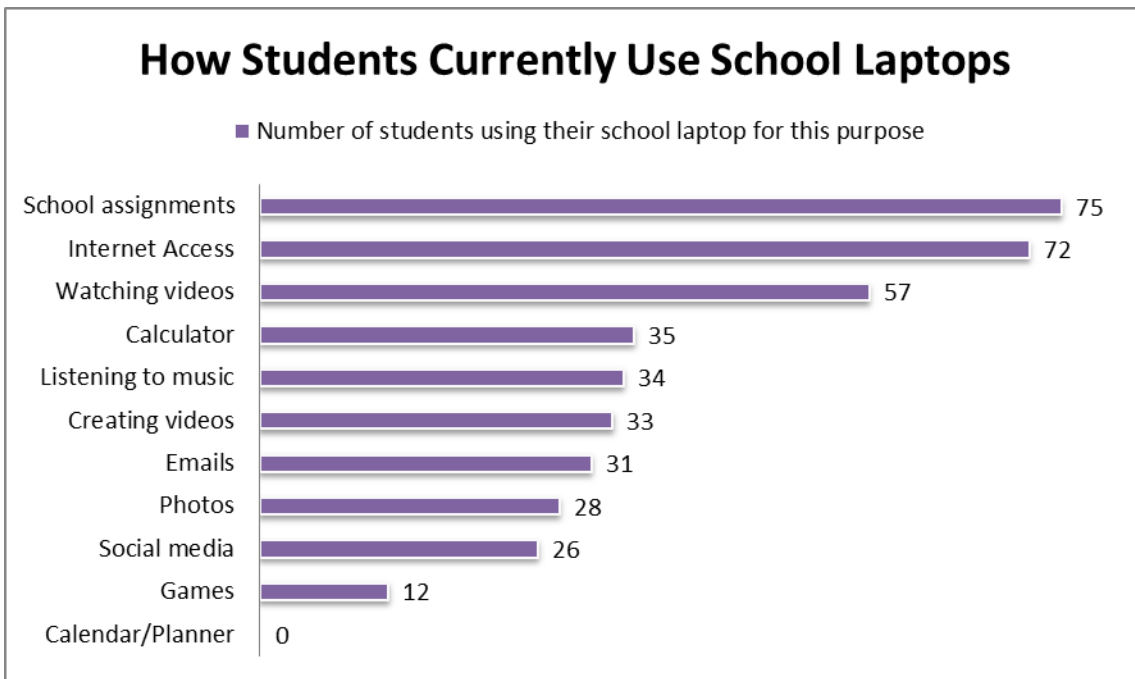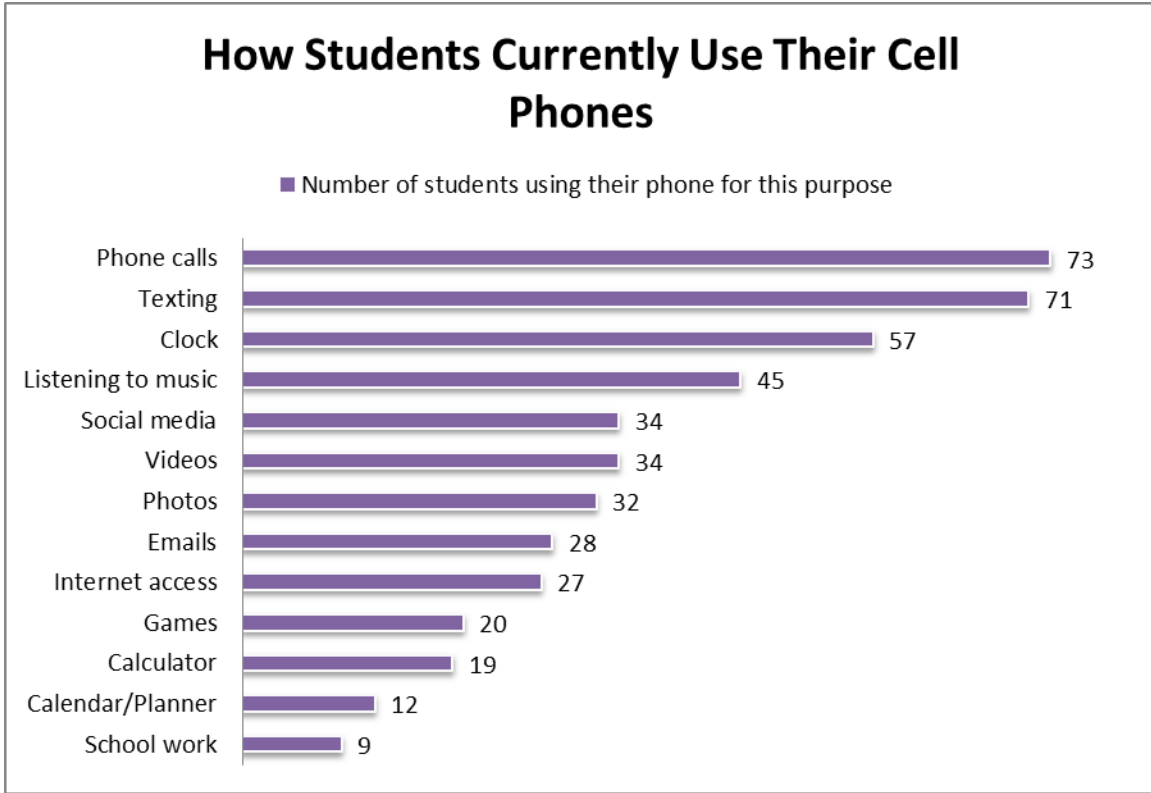
Data Analysis

As shared previously, this research was conducted as a quantitative study using a cross-sectional survey design. Answers to each question on the questionnaire were scored to give them a numerical value, for example for the Likert-scale questions strongly agree would equal five, agree would equal four, etc. Descriptive statistics was then used to analyze the data.

Results and Conclusions

Theme 1: Current Use of Mobile Devices

The first goal of the study was to establish how high school students are currently

using their mobile devices. The two charts below show for what purposes students are

using their cell phones and school laptops. The charts following break down the

students' use of these devices.

How Students Currently Use Their Cell Phones

■ Number of students using their phone for this purpose

Purpose	Number
Phone calls	73
Texting	71
Clock	57
Listening to music	45
Social media	34
Videos	34
Photos	32
Emails	28
Internet access	27
Games	20
Calculator	19
Calendar/Planner	12
School work	9

How Students Currently Use School Laptops

■ Number of students using their school laptop for this purpose

| Purpose	Number
School assignments	75
Internet Access	72
Watching videos	57
Calculator	35
Listening to music	34
Creating videos	33
Emails	31
Photos	28
Social media	26
Games	12
Calendar/Planner	0

As you can see using the charts above, students are currently using their cell

phones for more personal uses than academic. In fact, only 9 (11%) students indicated

that they use their phone for school work. School laptops, on the other hand are being

used for mostly academic purposes. Seventy-five (93%) of the 81 students surveyed

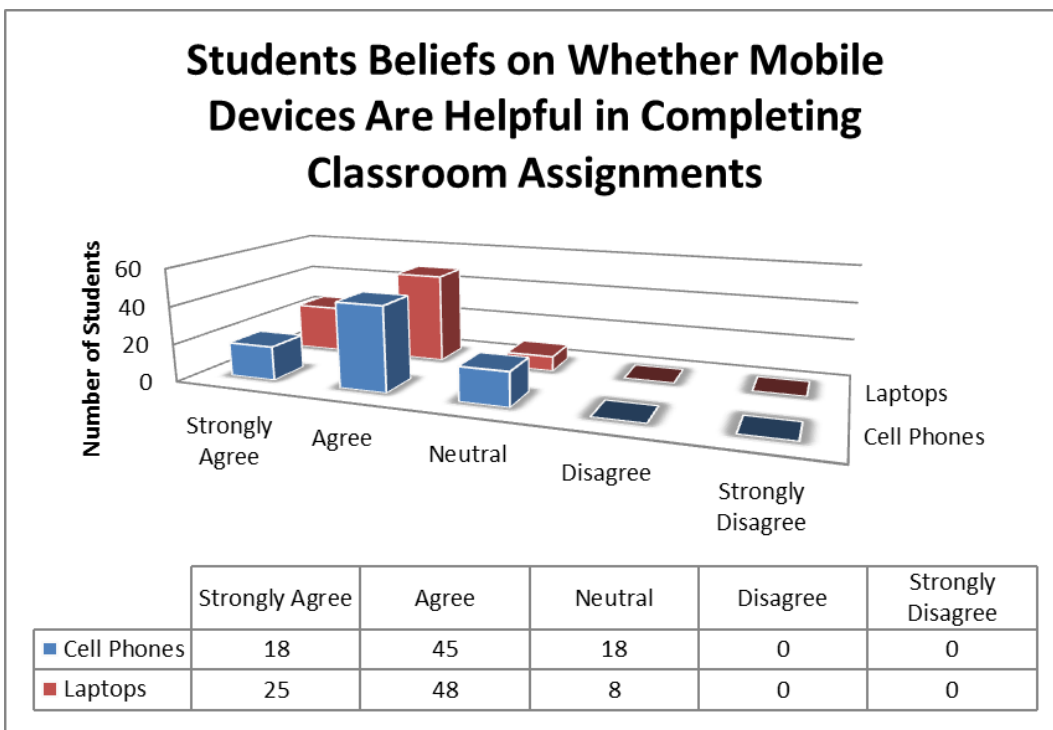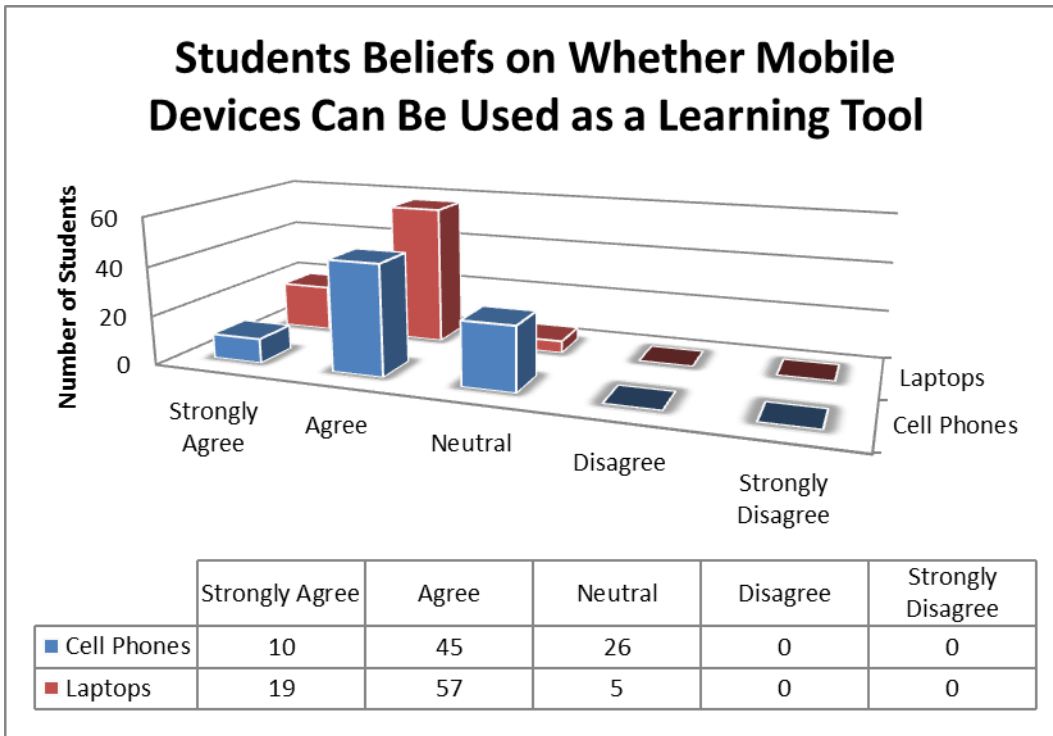indicated that they use the laptops for school assignments.

Theme 2: Students' Perceptions of Mobile Technology in School

The second goal of the study was to investigate the students' perceptions as to

whether mobile technology is helpful or distracting during school. As indicated by the

chart below 28 (35%) of the 81 students surveyed found cell phones to be mostly helpful

in the classroom. Six (7%) found cell phones to be mostly distracting. More than half of

the students surveyed, 47 (58%), found cell phones in the classroom to be neither helpful

nor distracting. The numbers for laptops in the classroom were very different however,

with 65 (80%) students finding them mostly helpful, 0 (0%) finding them mostly

distracting, and 16 (20%) students admitting that they are neither helpful nor distracting.
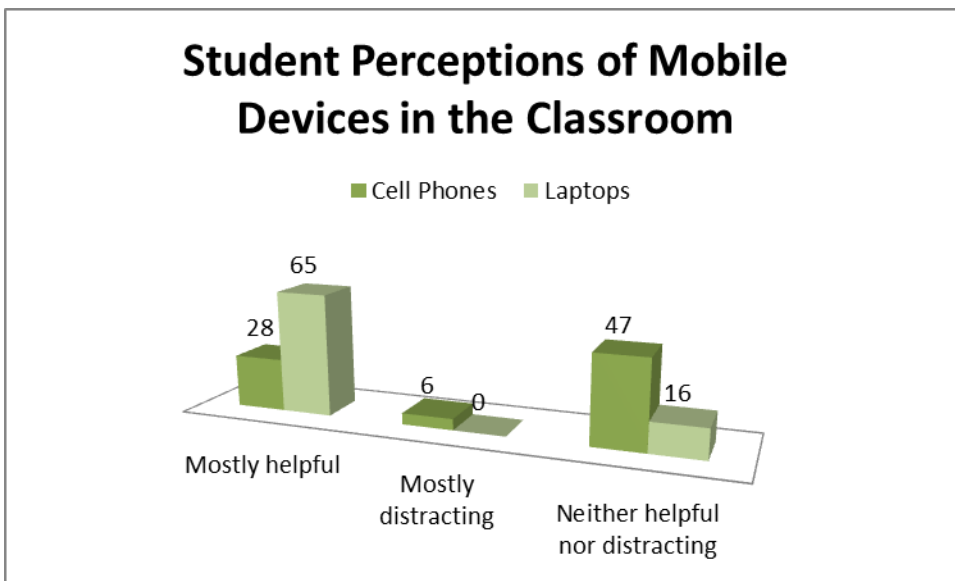
Students were also asked whether they believed mobile devices could be used as a

learning tool and whether they find them helpful in completing classroom assignments.

The results are shown in the two tables below.

Students Beliefs on Whether Mobile Devices Can Be Used as a Learning Tool

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Cell Phones	10	45	26	0	0
Laptops	19	57	5	0	0

Students Beliefs on Whether Mobile Devices Are Helpful in Completing Classroom Assignments

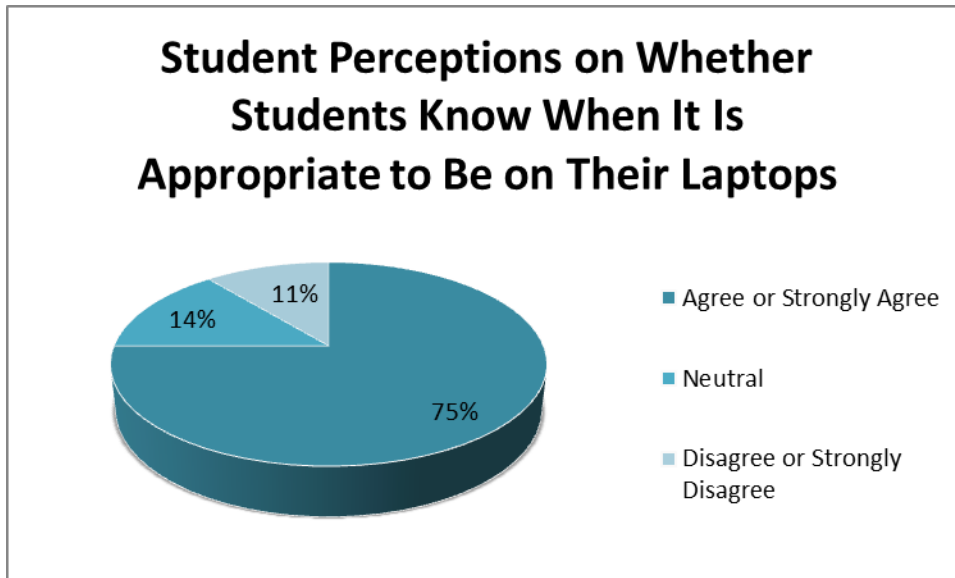|	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Cell Phones	18	45	18	0	0
Laptops	25	48	8	0	0

In studying the two charts above, you can see that most students agree or strongly agree that both their cell phones and their laptops can be used as a learning tool and helpful in completing assignments. The survey also found that 70% of students surveyed found it helpful to be able to access school news from their mobile device and 38% of students found it helpful to be able to access school work from their mobile device.

Theme 3: Students' Perceptions of Appropriate Times to Use Mobile Devices

The third and final goal was to explore the attitudes of students regarding appropriate times to be on their devices. When asked if they believed that most students know when it is appropriate or inappropriate to be on their phones 63% agreed or strongly agreed that they did. When asked the same question about laptops 75% agreed or strongly agreed. The survey also revealed that 100% of the students surveyed believed that teachers should have clear policies about the use of cell phones in their classrooms.

Student Perceptions on Whether Students Know When It Is Appropriate to Be on Their Laptops

- Agree or Strongly Agree — 75%
- Neutral — 14%
- Disagree or Strongly Disagree — 11%
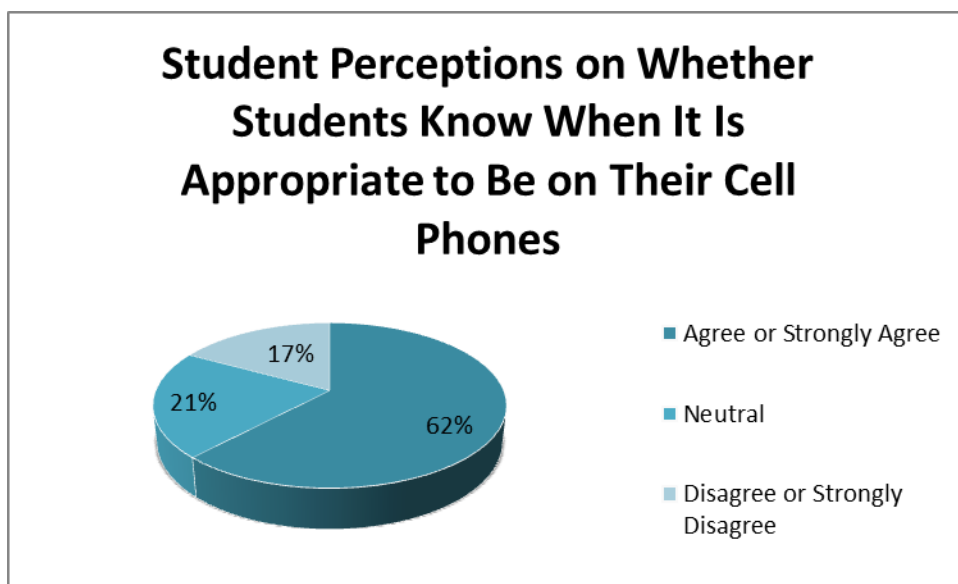
Summary

The purpose of this study was to research high school students' perspectives on using mobile technology in the classroom. Obviously, this was only a small sampling of students from one particular high school and more research should be done, but in looking at the data collected by this survey, I would conclude that students are ready to use mobile devices in the classroom. While the students are not currently using their cell phones for academic purposes many of them indicated that they believed their phones could be used for learning and could be a helpful tool in completing assignments. It also appears that the majority of students, when given the opportunity, are using school laptops appropriately and find them helpful in completing their school work. The students also seem to know that there are appropriate and inappropriate times to use their mobile devices and want their teachers to have clear policies about this in their classrooms.

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Appendices

Appendix A - Questionnaire

1. Gender:
___ Male
___ Female

2. Current Grade Level
___ Freshman
___ Sophomore
___ Junior
___ Senior

3. Age:
___ 13-14
___ 15-16
___ 17-18

4. I currently have a cell phone.
___ Yes
___ No (skip to question 7)

5. I currently use my cell phone for: (check all that apply)
___ Phone calls
___ Texting
___ Emails
___ Social media (Facebook, Twitter, Instagram, etc.)
___ Internet access
___ Photos
___ Videos
___ Listening to music
___ Clock
___ Calendar/Planner
___ Calculator
___ School work
___ Games

6. I use my cell phone **mostly** for _____ purposes.
___ Personal
___ Academic
___ Emergency

Please rate each statement below by circling the appropriate option.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7. I think that students should be able to use their cell phones during school.	1	2	3	4	5
8. I think that most students know when it is appropriate or inappropriate to be on their phones.	1	2	3	4	5
9. I think cell phones could be used as a learning tool.	1	2	3	4	5
10. I think that it is acceptable to use cell phones for non-academic reasons (texting, email, social media, etc,) during class.	1	2	3	4	5
11. I think that teachers should let students use their cell phones to complete educational activities during class.	1	2	3	4	5
12. I think that texting should be allowed during class.	1	2	3	4	5
13. I think that cell phones could be a distraction in the classroom.	1	2	3	4	5
14. I think that cell phone use should be allowed in every class.	1	2	3	4	5
15. I think that cell phones should only have to be put away during tests.	1	2	3	4	5

16. Overall I think cell phones in the classroom are _____.
___ Mostly helpful
___ Mostly distracting
___ Neither helpful nor distracting

17. I have used a laptop during school.
___ Yes
___ No (skip to question 20)

18. I have used the laptop for: (check all that apply)
___ School assignments
___ Calendar/Planner
___ Calculator
___ Internet access
___ Email
___ Social media (Facebook, Twitter, Instagram, etc.)
___ Listening to music
___ Watching videos
___ Creating videos
___ Photos
___ Games

19. I used the laptop **mostly** for _____ purposes.
___ Personal
___ Academic

Please rate each statement below by circling the appropriate option.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20.	I think that students should be able to use their laptops in every class.	1	2	3	4	5
21.	I think that students use their laptops appropriately during class.	1	2	3	4	5
22.	I think that laptops are a useful tool in completing assignments during class.	1	2	3	4	5
23.	I think that laptops can be a distraction during class.	1	2	3	4	5
24.	I think that every student should have access to a laptop.	1	2	3	4	5
25.	I think that it is acceptable to visit non-academic (Facebook, personal email, etc.) web sites during class.	1	2	3	4	5
26.	I think laptops can be used as a learning tool.	1	2	3	4	5
27.	I think that schools should block certain sites that could be distracting on school computers.	1	2	3	4	5
28.	I think that using laptops makes it easier to learn.	1	2	3	4	5

29. Overall I think laptops in the classroom are _____.
___ Mostly helpful
___ Mostly distracting
___ Neither helpful nor distracting

Cell Phone and Laptop Use
Please circle either T (true) or F (false) in response to the following statements.

30.	I have been distracted by another student's cell phone during class.	T	F
31.	I have been distracted by my own cell phone during class.	T	F
32.	I have been distracted by another student's laptop during class.	T	F
33.	I have been distracted by my own laptop during class.	T	F
34.	I sometimes use my cell phone for non-academic purposes during class.	T	F
35.	I sometimes use my laptop for non-academic purposes during class.	T	F
36.	There are times when it is <u>not</u> appropriate for me to be on my cell phone during class.	T	F
37.	There are times when it is <u>not</u> appropriate for me to be on my laptop during class.	T	F
38.	There are certain classes where cell phones should <u>not</u> be used.	T	F
39.	There are certain classes where laptops should <u>not</u> be used.	T	F
40.	Teachers should have clear policies about the use of cell phones in class.	T	F

41. Do you follow the school's news either on Facebook or Twitter?   Yes   No

42. Do you receive text messages or emails from the school or any of your teachers
through Remind(101)?   Yes   No

43. Do you find it helpful to be able to access school news from your mobile device?
        Yes   No

44. Do you use Edmodo in any of your classes?   Yes   No

45. Do you take tests or turn in assignments using BlackBoard in any of your classes?
        Yes   No

46. Do you find it helpful to be able to access your school work from your mobile device?
        Yes   No