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**Relationship between High School Students' Use of Cell  
Phones and iPods and Their Effect on Classroom  
Grades**

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**A Research Project Presented to the Graduate Faculty  
of the Department of STEM Education and Professional  
Studies at Old Dominion University**

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**In Partial Fulfillment of the Requirements for the  
Master of Science Degree**

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**By  
Lynsey Gore  
August 2010**

## **APPROVAL PAGE**

This research paper was prepared by Lynsey E. Gore under the direction of Dr. John M. Ritz in OTED 636, Problems in Occupational and Technical Studies. It was submitted to the Graduate Program Director as partial fulfillment of the requirements for the Degree of Masters of Science.

**Approval by:** \_\_\_\_\_

**Dr. John M. Ritz  
Advisor and Graduate  
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\_\_\_\_\_ **Date**

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# **CHAPTER I**

## **INTRODUCTION**

The high school senior carries their cell phone everywhere. According to a high school principal in Brooklyn, principal Lucks (2001) states, “Every kid today does carry a cell phone” (p. 11). Lucks (2001) say’s students keep their cell phones in their backpacks and pockets during the school day and as soon as the student notices a teacher or administrator they put it away quickly. At times they will even carry their cell phone through metal detectors in their school. High school students put their phone under their pant waist line when they know they will not be patted down. Also, a student has been known to smuggle their phone into school buildings in pieces. The student will leave the battery remaining separate from their main body. Teenagers will sneak their phones inside their lunches and under their clothes. The ban on cell phones in some school districts created uproar among parents and students (Cell Phones in the Classroom, 2001).

Parents insist on being able to stay in touch with their child in case of a crisis. Parents have written angry letters and email, staged rallies and news conferences, plus threatened to sue. Some state legislators refuse to drop this ban, while other state legislators have dropped the ban allowing cell phones and other electronic devices, such as the iPod into the school building. They insist cell phones and iPods are a distraction and can be used to cheat, take inappropriate photos in bathrooms, plus organize gang rendezvous. Cell phones are also the top stolen items amongst high school teenagers (Clark, 2006). Students refuse to give up their cell phones. They have become too vital to their daily existence and to parents’ peace of mind. Most parents prefer a policy that lets

students have cell phones but prohibits their use in classes. Some schools ban phones and other electronic devices, such as iPods, while others require students to turn off the devices during school hours.

Most school districts have removed the cell phone and electronic device bans and the problems and distractions in the classrooms have only increased. Although many teachers will be able to avoid making policies regarding cell phones, they will not avoid having to cope with their persistent appearance in purses, desks, and backpacks (Cell Phones in the Classroom, 2001). Cell phones allow students to write and send text messages, take and send digital pictures, and even take and send short digital clips, in addition to making phone calls. Cell phones can be a major distraction amongst teenagers in class, but they can also be used as teaching and learning tools as well. Cell phones can be used as a calculator, digital camera, Internet access, and dictionary. iPods usually follow the same school policy as cell phones and just like cell phones an iPod cannot be used inside the classroom. Cell phones and iPods could be used as a learning tool for teachers and students if school districts would change their policies regarding cell phones and iPods.

## **STATEMENT OF THE PROBLEM**

The problem of this study was to determine the relationship between high school students' use of cell phones and iPods and their effect on classroom grades.

## **RESEARCH GOALS**

To solve this problem the following hypotheses were tested:

H<sub>1</sub>: Students using their cell phone as a learning tool by accessing the internet, calculator, and dictionary positively affects classroom grades.

H<sub>2</sub>: Students using iPods as a learning tool and to decrease distractions would have a positive effect on classroom grades.

## **BACKGROUND AND SIGNIFICANCE**

The significance of this study is to determine whether or not the use of iPods and cell phones will affect student's grades inside the classroom. Cell phones have become more increasingly compact, which allow students to hide these more easily and bring them into the classroom, which violates school board policy. iPods also hold the same policy as the cell phone. They are allowed into the building, but not into the classroom. According to a recent article about iPods and cell phones in school, Davidson (2009) talks about iPods and says, "Possession's fine. You just can't be using them," "Principals don't want kids using them in hallways and cafeterias and classrooms during the day and that would include having them hidden in a pocket and [plugged] into the ear" (p. 5). School board members are worried about students' downloading inappropriate pictures, fighting over iPods, and using them to cheat. Seattle school board member Hoff (2009) said, "I think they shouldn't be there, period, they're just a plain distraction and every other week they become much more sophisticated" (p. 5). The article also touches on iPods and cell phones being used as a learning tool. Poch (2009), a senior at Todd Beamer High School, mentions enjoying having music playing during class, "It's easier to focus on the problems when other students are talking" (p. 5). Poch also added cell phones can be used in a good way too; at one point in time a text message was sent to a

mother about a student who allegedly brought guns to school. Recently, a question was asked to two seniors at Oscar Smith High School in Chesapeake, VA, if they use their iPod and cell phone at home to study. Krampl and Staaby said they use their electronic devices while working on homework and class projects while at home (A. Staaby, E. Krampl, personal communication, March, 2010).

The increase of cellular phones in society after the September 11 terrorist attacks are forcing school systems and states to rethink their campus bans on the devices. States such as Maryland and Virginia lifted their bans prior to September 11, 2001, in response to the widespread use of phones by adults and youths. Currently, the states allow school districts to draft their own cell phone and electronic device policies. In other cases, the terrorist attacks accelerated debate on the issue (Delisio, 2002). Now some school districts allow students to bring their cell phones and iPods into the school building. The district requires students to not have them on or in use unless there is an emergency; they are allowed in for safety, but having cell phones and iPods in the school building can lead to disciplinary issues. The goal of this study was to determine the relationship between students using their iPods and cell phones and the effect on their classroom grades.

## **LIMITATIONS**

The following limitations were recognized during this study:

- This study was conducted in one high school.
- The population was 10th – 12th grade high school marketing students.

- The students grade point averages used in the study were from the end of the second semester during the 2009-2010 school years.
- A sample of 50 marketing students was used to collect and measure data.

## **ASSUMPTIONS**

The researcher made the following assumptions:

- The majority of students used cell phones as a learning tool while completing classroom homework and projects and positively impacting the student's classroom grades.
- The majority of students used iPods to listen to music to decrease distractions inside the classroom. The students also used the iPod as a learning tool which led to a positive impact in the student's classroom grades.

## **PROCEDURES**

There were two methods of data collection used in this study. First, the researcher created a survey which asked questions regarding how much each student uses each technological device, when they used this, and what they used the technology for in regards to classroom assignments, projects, and activities. The survey was distributed to 50 marketing students at Oscar Smith High School. The researcher sorted through each survey and organized the data collected to determine how much each student used technology while working on classroom assignments. The surveys allowed the researcher to determine if students felt a change in policy allowing students to use their electronic

technology inside the classroom would impact their classroom grades positively or negatively.

Secondly, the researcher gathered the current grade point averages (GPA) through the Oscar Smith High School's Guidance Department. The researcher determined if there was a relationship between the student's GPA and whether or not they use these electronic devices as a learning tool while completed class assignments and projects. The researcher made recommendations as to whether there should be a policy change allowing iPods and cell phones in the classroom to be used as learning and teaching tools.

## **DEFINITION OF TERMS**

The following terms were definite to assist readers of the study:

*Cell Phone:* a mobile telephone system using low-powered radio transmitters, with each transmitter covering a distinct geographical area and computer equipment to switch a call from one area to another, thus enabling large-scale car or portable phone service (www.dictionary.com).

*iPod:* a pocket sized device used to play music files. The iPod is a combination portable digital media player and hard drive from an Apple computer.

*School Board Policy:* School boards establish direction and structure of their school districts by adopting policies. The policies are granted by state legislators and they establish directions for the district; they set the goals, assign authority, and establish controls that make school governance and management possible (National School Boards Association, 2009).

*Grade Point Average (GPA)*: A measure of scholastic attainment computed by dividing the total number of grade points received by the total number of credits or hours of course work taken.

## **OVERVIEW OF CHAPTERS**

Chapter I introduced electronic devices, such as cell phones and iPods, along with various school board policies and concerns regarding these technological devices inside a school. Chapter I established the research hypotheses to help develop and guide the study. The background and significance was provided to the reader with a review of electronic devices allowed into school buildings and the reason for the study. The limitations of the study explained the limits the researcher had set forth during the study. Chapter I also established the assumptions made by the researcher before moving forward with the study. The procedures of how the data were collected during the study were explained. The chapter also provided definitions of terms to help the reader understand the meanings of terms used throughout the study.

Chapter II provides a review of literature pertaining to the history of students using electronic technology as a learning tool. Chapter III focuses on the methods and procedures used for the collection of data for the study. Chapter IV presents the findings of this study. Chapter V summarizes the findings of the research, draws conclusions based on the findings, and conveys recommendations based upon the conclusions.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

The purpose of this study was to determine if cell phones and iPods can be used as learning tools by accessing the internet, using them as a calculator, and searching the dictionary in order to positively affect classroom grades. Relevant literature from various sources of information were used to provide insight as to why using electronic devices inside the classroom can positively affect student learning in secondary schools. This chapter discusses both negative and positive attributes of using electronic devices, such as cell phones and iPods as an instructional tool.

### **CELL PHONES AS LEARNING TOOLS**

This chapter focuses on the possible benefits of using cell phones while learning. Although there are many reasons why educators do not consider cell phones as learning tools, the research will discuss why it is important for educators to consider cell phone use for education. Activities such as texting, browsing web sites, and playing games using cell phones have multiplied in recent years among teenagers. Therefore, concerns from teachers and administrators about the distractions these devices can cause have increased. Today, roughly 70 percent of schools throughout the nation have banned cell phone use by students during the school day (Schachter, 2009). Some school districts and administrators are now beginning to realize the potential of cell phones inside the classroom. Some administrators believe it is time for a learning movement that will leave laptops behind in favor of more mobility.

A “Smartphone” is a cost efficient and reliable handheld device that can run operating systems. Smartphone’s can run a Windows Mobile operating system and host software to iPods, which are known more for playing audio and video. The iPod can also be adaptable to more interactive applications through educational platforms. Students can discuss novels with other students in various countries using the iPods during class time.

Researchers feel technology is a large part of our student’s education practices outside of school and is considered a literacy strategy in today’s society. Many researchers feel that varying literacy strategies will create a bridge between students’ life outside school and their learning inside school. Cell phones, instant messaging, and other popular technology communication tools are considered distracting to classroom learning. Although, if educational practices included tools and the knowledge that students already possess, then students will have better opportunities to connect learning inside and outside of school.

Chandler-Olcott and Mahar (2003) believe classrooms that integrate technology within everyday social learning environments will gain potential to promote more academically related interests within the school. Bruce (1997) suggests we must acknowledge new technology as a literacy strategy rather than ignore or fear these innovations. Often the way classrooms and communities throughout the country practice literacy are very different. For students to be successful they should learn how to use a variety of literacy tools in many knowledge building communities.

Teachers at times draw the line at everyday technologies used by students outside school. This disconnect between how students communicate outside of school and how

they learn and communicate inside the classroom is growing (Levin, Arafeh, Lenhart, & Rainie, 2002; Tell, 2000). Outside of school students communicate through text messaging, chatting online, e-mail, BlackBerry devices, Web cams, video games, digital media players, and other network and digital technologies.

The Kaiser Family Foundation (2005) named today's youth the m-generation because of the adolescents' ability to multitask. Students can use a variety of media devices at one time, such as talking on the cell phone, text messaging, and typing an essay all at the same time. Still, teachers will assume students are the same as they have always been, so teachers will continue to use traditional methods of teaching (Prensky, 2001). Students are aware of their teachers' dislike of their electronic devices. Some teachers have little appreciation for electronic devices and the communication and knowledge building skills students have developed as an outcome of them (Levin et al., 2002). Teachers repeatedly let students know their everyday electronic devices are not acceptable in the learning environment. Some teachers see the technologies that students use as distracting, time consuming, and even harmful. One of the most popular youth technologies students use today is their cell phone. However, cell phones are not popular with educators.

A study in 2007 using 1,500 students between the ages of 10–17 found during the summer a student will spend an average of 3 hours and 45 minutes using their cell phones each day (Disney Mobile Survey, 2007). A third of students researched say they would rather give up video games or even a trip to the mall before parting with their cell phones. A fifth of students reported they would rather give up watching television than their cell phones. This use of cell phones by students is why cell phones should be used as a tool

for classroom instruction. Students enjoy using their cell phones and they are highly motivated to interact with their cell phones for more than just communicating with friends. Most students have their cell phones with them at all times. Therefore, the learning activities do not have to occur within the confines of the classroom. Teachers should take advantage of this motivational tool and find learning strategies to incorporate cell phones into the classroom.

Many features from cell phones are being used by teachers as instructional tools for their students. For a school with a limited number of digital cameras and limited Internet access in classrooms, cell phones can help fill in the gaps, serving as mobile computers. With cell phones allowed in the classroom, a career and technical education teacher might be able to supervise a student's phone interview for a possible internship or employment. For a student interested in information technology, a cell phone can certainly be a learning tool (Cell Phones in the Classroom, 2007).

A former teacher from an independent school district in Dallas, Texas, and the co-creator of "GoKnow Learning", Norris (2007) thought the idea of using cell phones in the classroom was ridiculous, but now sees why there is value in using cell phones as a learning device. More people are now using Smartphone's over laptops when they are traveling, plus cell phones are also small, affordable, mobile, and operate with a "data plan," which makes them perfect for educational purposes.

Norris (2007) mentions that teachers are still wary of change even though cell phones are more familiar and less intimidating than most computers. Students should be taught how to communicate with others though blogs and social networking. They should be taught this, because these are the same tools they will use after high school. Using cell

phones help students learn how to communicate with each other and write better. Norris (2007) suggests that schools create a responsible use policy in lieu of an acceptable use policy to ensure that students understand they can not use cell phones to take pictures of students, cheat, or post videos. Norris (2007) says, “If you give children a way to do their lessons which is comfortable and in a way they enjoy it, they will spend more time on it and learn more” (Pascopella, 2009, p. 42).

Abilene Christian University (2009) located in Texas has rejuvenated classroom learning. The university just finished its first year of a pilot program, in which 1,000 freshman students had the choice between using a free i-Phone or an iPod Touch. The university decided to integrate this into their curriculum, given the fact students are eternally distracted by the internet, cell phones, and video games. They believe this is the new way to educate students at the post-secondary level. The goal was to explore how the i-Phone might revolutionize the classroom experience. Students can use web applications to turn in homework, look up campus maps, watch lectures through podcasts, and check class schedules. For classroom participation, there is even software for Abilene students to digitally raise their hand.

The university finds the program is working quite well. A total of 2,100 Abilene students are now equipped with a free i-Phone and 97 percent of the faculty population has i-Phones too. i-Phones’ aid Abilene students by giving students the information they need when they want it and wherever they want it (Rankin, 2009). Why would a student want to listen to a teacher talk about a printed textbook that will be outdated in a few years? With an i-Phone students will have a portal of live stream information provided by many people. Instead of standing in front of a classroom and talking for an hour, a

teacher can instruct their students on how to use their i-Phones and how to look up relevant information. Students will then be able to discuss the information they have found and the teacher leads the dialogue by helping assess which sources are useful.

Each participating instructor at Abilene Christian University is incorporating the i-Phone differently into their curriculum. In some classrooms the professors present discussion questions onscreen in a PowerPoint presentation. Then, using software for the i-Phone students can answer the questions anonymously by sending responses electronically with their i-Phones. The software can also gauge whether students understand the lesson.

Allowing students to participate in polls anonymously relieves them of any social pressure to appear intelligent in front of their peers. If they answer wrong, nobody will know who answered the questions. If students do not understand a lesson, they can ask the teacher to repeat it by simply tapping a button on the i-Phone (How the iPhone can reboot education, 2009)

Rogers (2009), a principal at Passage Middle School in Newport News, VA, was a classroom teacher for 9 years. In addition to being a principal, Rogers (2009) runs workshops all over the country. The points of his workshops are centered on mobile learning and using cell phones in class. Most of the activities completed in the workshop are text based with cell phones. Participants of the workshop are also encouraged to bring a Nintendo DS.

Information is given on how he has used cell phones in the classroom and why he believes they are effective teaching tools. Some of the information he discusses include a free private file-sharing systems called Drop.io, which allows users to create a place to

store files and share them with multiple users for collaboration. What is interesting is that a number is generated so you can call and record a message using this file sharing system. Once that voice message is on Drop.io, you can record audio and insert it on a different site. With Drop.io a student can create audio recording and have a podcast. The audio recording and podcast can be embedded onto a wiki or blog. Another highlight Rogers (2009) suggests is Poll Anywhere software, which is polling allowing teachers to see and interact with their student. An exercise Rogers did with his students from the workshop was to go outside of the conference room and take pictures with their cell phones. The participants uploaded the pictures they took to a site, and then shared the information with other people on the team. If this is structured well, it could be a lot of fun and students can benefit from it. The whole point of cell phones is to have a communication device wherever you go. If students are confined to stay in their seats the entire class it limits the potential learning opportunities and uses for these devices. Rogers (2009) encourages the potential for using cell phones in class (Anytime, anywhere! mobile learning using cell phones: activities for the classroom, 2009).

Many new web sites can be coupled with cell phones to create innovative learning opportunities. The web sites are part of the Web 2.0 generation. Web 2.0 is often referred to as the read/write web, or social-networking sites. Some examples of read and write web sites include web logs, also known as blogs, photo-sharing sites, wikis such as Flickr, MP3-sharing sites such as Napster, and many other web sites where people can participate and interact (O'Reilly, 2005). After students leave school for the day they become immersed in these social-networking sites, including myspace.com and facebook.com.

Today, students are growing up in a technology-enhanced community outside of school. If students develop their own communication and community through their media devices, educators need to bring those devices into educational activities, so students can learn to use them as learning devices. The issue today is how to help teachers learn about media tools and how to utilize them effectively for knowledge construction.

### **USING IPODS IN THE CLASSROOM AS A LEARNING TOOL**

Another technological device that students use inside and outside of the classroom is called an iPod. The iPod is a portable digital audio player that has the ability to hold large amounts of music. iPods are easy to use and effective in the production, transfer, and distribution of digital audio and video. Campuses throughout the country are using iPods as education tools, a trend the company “Apple Computers” hopes to capitalize on with “iTunes U,” a nationwide service that makes lectures and materials available online (The Principals Partnership, 2007).

The iPod is breaking down the boundary between education and entertainment. iPods are becoming study aids for students, allowing them to fast forward to a part of a lecture they may not have understood the first time or review complicated lessons before exams. Using “iTunes U” provides students a chance to download and organize lectures, plus content associated with the same technology they would use to click on a U2 song. The program proved so popular that Apple announced recently that it would offer the program to all colleges.

iPods offer an original and diverse way for K-12 teaching and learning. When students use iPods they can listen to content during their study periods, listen to content

while travelling to and from campus, or between activities. It has also been reported that faculty noticed an increase in student motivation as a result of using the technology.

Many students also report using iPods as a way to block out distractions, especially the chatter of those who are not so concerned about working. Students with ADD or ADHD have also been observed to become more focused if they are able to use an iPod.

The iPod allows teachers to integrate audio into the classroom's curriculum. During every class a teacher can use music, so they can immediately jump to any point in an audio book, lesson, or play something pertaining to the lesson. Video, audio, and images can be loaded on the iPod and provide a means for bringing a student who missed a day up to speed. If a student is struggling with a concept they can watch a video as many times they would like on the iPod to fully understand the content. Students can also use the iPod if they are struggling with vocabulary. The student can have flash cards on the iPod to see an image, hear a word used in a sentence, and read the word in text.

In first grade, students are using iPods to listen to their reading, and then retell the story using the voice recorder. The same first grade student can do a timed reading, and then the teacher creates a CD record for parents. In high schools students are beginning to produce weekly podcast reviews of the content they studied during that lesson or unit. The podcasts can be used for review throughout the year and on student exams. Students seem to be very interested in using the iPod for learning and they are taking what they have learned back to talk with their parents about it (Meserve, 2010).

The iPod Touch is a portable media player and Wi-Fi mobile platform designed and marketed by Apple. The iPod touch includes Apple's Safari web browser and is the first iPod with wireless access to the iTunes Store.

The iPod Touch has the ability to perform several tasks such as surfing the net when WiFi is available, sending emails, listening and download music while completing classroom assignments, and using calendar, maps, weather, clock, note taking, contacts, calculator, and taking pictures.

When used properly the iPod touch allows students to create documents, use student email, watch curriculum integrated videos, use the internet for writing research papers, listening to podcasts, participate in online learning communities, participate in blogs, use an instant response system, and students can download a variety of online books and music (In iPods we trust, 2006).

## **CONCERNS WITH CELL PHONES IN THE CLASSROOM**

The next section of the review of literature will discuss concerns school districts have with allowing cell phones and iPods into the school building. The concerns discussed in this chapter are just a few of the reasons behind school districts banning cell phones or creating policies which do not allow cell phones on school campuses.

A recent article titled, “Cell Phones in the Classroom” (2006), describes a teacher working hard on her lesson plan. The students are listening closely while she teaches when suddenly a cell phone starts playing. It would not matter what type of ring tone played; the student’s attention has been broken. The teacher will have to try and recapture the student’s attention and get her lesson back on track.

Picture another scenario where there has been an emergency at your school that requires police and medical attention. People were notified immediately and given vital information by a student because of their cell phone. Students having their cell phone on

them during emergencies will lead to office lines not being jammed by calls from frantic parents. Parents will be able to reach their child easily on their cell phone during school hours.

Banning cell phones from school was once an easy decision. Today, this no longer a simple issue. The events over the past ten years, including “Columbine” and “9/11” are what changed the policies in many states and counties.

The primary concern is that cell phones can distract students in a classroom. Even though most schools require that phones be turned off during school hours, this rule is difficult to enforce by teachers, security, and administrators. Students can leave class for a bathroom break and use the phone while out of the room. Cell phones are so small that students can use them sneakily in class as well, particularly text messaging and playing video games. Students can pretend to be searching through their bookbag all the while texting someone. If the phone rings in class, the entire classroom is disrupted and teachers report that many students will answer the call. Cheating and inappropriate photos are also concerns.

As cell phones become more sophisticated and dominant, opportunities for cheating increase. Teachers have caught high school students taking pictures of tests and accessing photos of textbook pages or notes during tests, in order to pass along to students in other classes. Inappropriate photos taken in locker rooms and restrooms have also become a problem in some schools. This particular problem can carry the potential for a lawsuit. Many school systems will not allow camera phones, but still allow traditional cell phones. In some areas only the more fortunate students own cell phones, which can lead to envy and theft (Shaw, 2005).

Issues arose in New York City when enforcement of the city's ban on cell phones was increased. Parents said there are safety issues such as the long commutes on public transportation many students must make and the difficulties in coordinating their children's schedules. In New York, parents' concerns about being unable to reach their children in the event of another terrorist attack are not easy to dismiss. With this being said, the logistics of collecting thousands of cell phones each day and returning them at the end of the day will be difficult to manage. School officials in New York have concerns about teachers dealing with students in the classroom when phones go off, as well as the distractions they will cause (Students and Cell Phones, 2005).

Even in places where cell phones are not banned from school, there are usually limits that must be set in place. One of these limits is that the student's cell phone must be turned off during school hours, or set to voice mail only. Some teachers decide to collect cell phones at the beginning of the class and return them at the end of class. Some just collect the ones that ring during class.

Concerns with having cell phones allowed in school are mainly due to how a student will use them in the classroom. Students can cause distractions using their cell phones by playing video games and communicating with friends. Students can also cheat by text messaging or taking pictures of tests. Teachers are also concerned because cell phones have gotten so small that they are now very easy to hide.

Using cell phones for classroom learning raises many concerns. Although there are no federal or state laws at this time prohibiting the use of cell phones in the classroom or for learning, many schools have policies against even bringing cell phones to school.

As a result, teachers often assume they cannot and should not consider the cell phone as a learning tool (Kolb, 2007).

Many school districts feel strongly about policies prohibiting students from bringing their cell phones into the school building. Some school districts feel that cell phones do not have to be brought into the school building in order to be used for the learning activities. With that being said, other ways to use cell phones for learning activities are for field trips and homework assignments. Students can take advantage of their cell phones as learning tools without having to bring them to the classroom. Students can take pictures, create videos or record audio when they leave school, then post their data before coming to class on a number of Web 2.0 sites. The next school day students in class will be able to log on to their sites and download the data for class projects. Students can use tools such as online editing and posting on Web 2.0 sites to further develop movies, slideshows, blogs, or any other related activities with their audio and image recordings. They can do all these activities without having a cell phone in the classroom. This way the students are learning how to use their cell phone as a data collection tool and the school policy has not been violated. Once students are successful with using cell phones outside of school as a learning tool, teachers could approach their administrators about changing policy. The policy might change for students to be allowed to have their cell phones in school for content related learning opportunities.

Keeping students on task in the classroom is very hard and having cell phones in the classroom only adds to the issue of classroom management. Many teachers worry it will become increasingly difficult when students have cell phones at their desk to manage the class. Teachers worry that the cell phone will distract students from the lesson. In

addition, teachers are worried the camera phone and camcorder phones will be used to take inappropriate pictures if cell phones are allowed in the classroom. These pictures and videos can be published to the Internet for other students to view.

There are a couple solutions that may allow constructive cell phone use inside the classroom. One solution is for teachers to simply take control. Teachers can control when students bring in their cell phones and where they keep them during class time. Teachers can collect them as the students enter the classroom and hold onto them until it is time to use them. Also, administrators and school officials should remember that any tool can be distracting and even harmful if used inappropriately in the classroom. Students still pass notes and doodle on paper when they should be paying attention in class. The key is to have structure and control in the classroom when the cell phones are used and when they are not used. Another solution is to set up a social contract with students before engaging in any cell phone activities. A social contract might be an agreement between the teacher and students about how, when, why, and where cell phones will be used in the classroom. In this contract the teacher can set up regulations and consequences if the student does not obey the contract. For example, the teacher could require that students leave their cell phones off in the front of the room until it is time to use them for the project. The consequence for not cooperating with the contract could be missing out on the cell phone project and doing an alternative assignment instead. Often when social contracts are set up with student input, they are more likely to “stick to their contract” (Kolb, 2007, p. 13).

It is also important to provide parents with permission slip forms from the teacher that state the nature of the activity and include the contract. By using the permission slip forms you can let students and parents know that using cell phones in the classroom is a

privilege the child will be able to benefit from and that there are consequences for violating the privilege (Kolb, 2007).

### **CONCERNS WITH IPODS USED AS A LEARNING TOOL**

Students can load their entire music collection into the iPod and carry it with them wherever they go. Some students have their iPod plugged into their ears on a fairly regular basis, and even continue to listen when they are having conversations with other people. If students had the choice, they would listen to music the entire time they are in class.

A person's brain is unable to multi-task when it comes to complex functions, such as listening to music and processing information in class. Therefore, if a student is listening to music during school time, they should not be unable to fully process what they are doing. Teachers have enough difficulty getting students to focus without outside devices. The challenge is that many students feel they are able to listen to their iPod and process information at the same time. Unfortunately, studies show that students who listen to music while reading or writing a paper take twice as long and make many more mistakes (Pheifer, 2009).

The other challenge with iPods is that they contribute to classroom management issues. Many students would enjoy having an iPod in class, but unfortunately there are always students who will abuse privileges. Therefore, allowing iPods in class may cause the teacher to dedicate too much time and energy managing these devices in class. In most cases, the teacher would rather spend their time teaching their lesson rather than dealing with more classroom management issues.

According to a recent article, “Change in iPod Policy” (Richards, 2007), students would really enjoy a change in the school board policy. The article discusses teachers not being content going against each other based on who allows iPods in their classrooms. The principal of a Wisconsin high school says, “There will come a day when MP3 players become our text books, but we’re not there yet” (Thompson, 2008, p. 21). Thompson (2008) is also concerned with not being able to determine and manage what students are listening to while at school. People that are opposed to iPods in school believe that the devices hinder social interaction. They also believe that it would be hard to create a policy fair to everyone (Richards, 2007).

## **SUMMARY**

It seems that cell phones will not be going away anytime soon, and when they do, they most likely will be replaced by a brand new technology with its own benefits and drawbacks. School districts will have to continuously wrestle with the issues of regulating the presence of cell phones inside the school building and teachers will have to decide how they want to manage them in the classroom. Cell phones will most likely continue to bring teachers classroom problems, but they may also provide differential learning strategies if used appropriately (Cell Phones in the Classroom, 2006).

The introduction of using iPods in education requires more research to be done. More research should be done to determine actual consequences of using iPods in a school building. Although there are consequences with using iPods in the classroom, they can open up a world of digital audio and video for students during class. A drawback with using an iPods in the classroom is that iPods might encourage isolation for students,

because some students may substitute iPods for attending class or communicating with their peers. Also, students may use an iPod other than promoting learning. A yearly problem for schools, teachers, and students is that print textbooks are expensive, quickly outdated, and can sometimes be heavy to carry. A move away from relying on print textbooks to the use of multimedia or online information offers many advantages. Some of these advantages include savings on cost, iPods are more efficient for schools, improved accessibility, and iPods enhance learning opportunities. These advantages will gain the attention of technology enhanced students. The use of iPods in classrooms is beginning to appear and the possibilities of what iPods can be used for seem endless (Using iPods for Instruction, 2007). Although the research could not prove the hypotheses one way or another, there is enough research available to provide a background and significance for further research. Chapter III provides information regarding the methods and procedures used in this research.

## **CHAPTER III**

### **METHODS AND PROCEDURES**

Chapter III of the research paper discusses methods and procedures used in the study. The focus of the research study was to determine if there is a relationship between high school students use of cell phones and iPods and their effect on classroom grades. The following information provides details on the population, research variables, instruments design, procedures, methods of data collection, and statistical analysis the researcher will use in the study.

#### **POPULATION**

The population was 10th through 12th grade students at Oscar Smith High School in Chesapeake, Virginia. The group included 50 students that were enrolled in marketing courses, which included 10 from internet marketing, 10 from fashion marketing, 10 from advanced fashion, and 20 from studies in marketing during the 2009-2010 school year.

#### **RESEARCH VARIABLES**

The dependent variable in this study was the grade point averages of the students participating in the study. The student's grade point averages can be calculated on a cumulative per semester basis from 9th to 12th grade. The grade point average data for this research was collected from the end of the second semester grades of the 2009-2010 school year. The independent variable of the study was the student responses to whether or not they use an iPod or cell phone when completing homework assignments, class work, and projects.

## **INSTRUMENT DESIGN**

The instrument used in this study was a survey that determined the student's name, grade level, and if they used electronic devices when completing classroom assignments, projects, or homework. The survey will determine whether or not students have teachers that allow them to use any electronic devices in the classroom. The survey included student opinions as to whether or not they think using cell phones and iPods in the classroom as a learning tool will be beneficial, or a classroom concern. It asked whether or not they would be an advocate for a change in school policy allowing electronic devices such as iPods and cell phones into the school building. The survey included directions on how to fill out the information accurately. The surveys were handed out to students at the beginning of each block during the day and collected by the teacher. See Appendix A for a copy of the survey.

## **METHODS OF DATA COLLECTION**

The data collection consisted of the distribution of the surveys to 10<sup>th</sup> through 12<sup>th</sup> grade students enrolled in a marketing course. Marketing teachers were asked personally by the researcher to distribute and collect the surveys in their classrooms. The researcher explained the importance and the meaning behind the surveys. The surveys were returned by the end of two school days to the mailbox of the researcher. The survey was completed confidentially and a parent consent form was given to the student to have signed by their parent or legal guardian before the survey was completed by the student. See Appendix B for a copy of the parent consent form.

## **STATISTICAL ANALYSIS**

The survey was created by the researcher in order to gather basic information about the students answering the survey. The researcher accessed student records to determine the grade point average of the students taking the survey. Grade point averages were taken from the student records office within the guidance department. The survey answers were tabulated and the statistical analysis chi square was used to determine if there was a significant difference in grade point averages between students that do or do not use electronic devices as learning tools.

## **SUMMARY**

Chapter III presented information about the population, instrument design, data collection, and statistical analysis of the research study. To gain the information necessary to complete the research, the researcher developed a survey to gather information about cell phones and iPods being used as a learning device. The surveys were distributed to sophomores, juniors, and seniors in order to determine whether or not students used iPods and cell phones as learning tools. The grade point averages were accessed through the high school guidance department to see if there was a relationship between students that used electronic devices as a learning tool and their G.P.A. The results of the findings the researcher gained from the surveys and grade point averages were presented in Chapter IV.

## **CHAPTER IV**

### **FINDINGS**

The purpose of this chapter was to present the findings of the survey. The problem of this study was to determine student's opinions on how their use of cell phones and iPods as a learning tool affects their classroom grades. Answers to the survey were categorized in this chapter by student's current grade point averages. The survey contained responses from a variety of grade point averages ranging from 1.0- 4.0. The survey data were reported in terms of mean and in terms of frequency of responses on a percentile basis.

#### **STUDENT SURVEY RESPONSE RATE**

Fifty students from Oscar Smith High School were selected to complete the survey with 46 students responding or a 92 percent response rate. Of the 46 surveys received, 22 surveys were turned in by students with 2.0-2.9 grade point averages and made up 48 percent of the survey population. Sixteen surveys were turned in by students with 3.0-3.9 grade point averages and consisted of 35 percent of the survey population. Two surveys were returned by students with grade point averages between a 1.0-1.9, which made up .04 percent of the survey population. Six surveys were returned by students with 4.0 and higher grade point averages which made up 13 percent of the survey population.

## SURVEY RESULTS

Survey Questions 1-20 were designed to answer Research Goals 1 and 2 of determining whether or not students used their cell phone as a learning tool by accessing the internet, calculator, and dictionary and if their use positively affected classroom grades and whether or not students were using iPods as a learning tool and to decrease distractions would have a positive effect on classroom grades. The 5-point Likert scale was used to rate participants' responses from 1-Strongly Disagree to 5-Strongly Agree. The mean scoring values were described for each student response.

Survey Question 1 determined whether or not students use their cell phone inside the classroom to complete class assignments. Examples include, but not limited to: dictionary, calculator, internet for research). Out of 46 students 21 strongly agreed and 3 students strongly disagreed to this question. There was a mean score of 3.89 percent. The majority of students agreed to Question 1.

Question 2 determined whether students used cell phones as an educational device to complete class projects inside the classroom (Examples include, but not limited to: dictionary, calculator, internet for research). Nineteen students strongly agreed, 9 students disagreed, and 3 students strongly disagreed. There was a mean of 3.67. Students agreed with this question.

Question 3 determined whether students used their cell phone as an educational device to complete homework while at home (Examples include, but not limited to: dictionary, calculator, internet for research). Eighteen students strongly agreed and 18 students agreed to this question. The mean was 3.95. The majority of students agreed to this survey question.

Question 4 asked whether students used their iPod as an educational device to complete class assignments inside the classroom (Examples include, but not limited to: Podcasts, educational videos, and internet). Twelve students disagreed and 7 students strongly disagreed to this question. There was a mean of 3.15. Most students were undecided about this question.

Question 5 asked whether students used their iPod to complete class projects inside the classroom (examples include, but not limited to: Podcasts, educational videos, and internet). Fourteen students agreed to this question and 12 disagreed, which lead to a mean of 3.19. Students surveyed were undecided about this question.

Question 6 asked whether students completed homework (examples include, but not limited to: Podcasts, educational videos, and internet). Eighteen students strongly agreed, 10 agreed, and 9 disagreed to this question. The mean was 3.59. Students agreed to this question.

Question 7 asked whether students listen to music on their iPod while completing class assignments in school. Twenty-two students strongly agreed and 14 agreed with this question. A mean of 4.39 was recorded. Students agreed with listening to music on their iPod while completing class assignments.

Question 8 asked students whether they listened to music on their iPod while completing homework while at home. Thirty-one students agreed to this question. A mean of 4.59 was recorded. Students strongly agreed with this survey question.

Question 9 asked students if they listened to music on their iPod help to avoid classroom distractions. Twenty-seven students strongly agreed and 10 agreed to this survey question. There was a mean of 4.22. Students agreed with this survey question.

Question 10 asked students if they listened to music on their iPod and if it helps to avoid distractions at home. Twenty-nine students strongly agreed and 11 agreed with this question. There was a mean of 4.39. Most students agreed with iPods helping to avoid home distractions.

Question 11 asked students if they listened to their iPod while taking a test in the classroom. Seventeen students strongly agreed, 14 agreed, and 9 disagreed to this survey question. There was a mean of 3.76. Students agreed with this survey question.

Question 12 asked students if they listen to their iPod while studying for a test at home. Twenty-nine students strongly agreed and 5 students disagreed with this question. There was a mean of 4.15. Most students agreed with listening to their iPod while studying.

Question 13 asked students if they used their cell phone as an educational device when they were studying for a test. Twenty-two students strongly agreed, 8 disagreed, and 7 strongly disagreed with this question. There was a mean of 3.56. Students were agreed about using their cell phone to study for a test.

Question 14 asked students if they have had at least one teacher throughout their school year allow them to use their cell phone or iPod as an educational tool in the classroom. Twenty-seven students strongly agreed and 11 students agreed with this question. With a mean of 4.35, students tended to agree with this question.

Question 15 asked students if their parents allowed them to use their cell phone or iPod as an educational device at home. Thirty-four students strongly agreed with this question, 6 agreed, and 6 were undecided. There was a mean of 4.6 and students strongly agreed with this question.

Question 16 asked students if they were able to use their cell phone in a class as an educational device would it increase their classroom grades and test scores. Twenty-two students strongly agreed, 11 agreed, and 9 were undecided with this question. A mean of 4.11 was recorded and students tended to agree that cell phones used as an educational device would increase classroom grades.

Question 17 asked students if they could use their iPod in class as an educational device would that help increase their classroom grades and test scores. Twenty-one students strongly agreed with this question, 10 agreed, and 6 disagreed. A mean of 3.96 was recorded. Students tended to agree with using their iPod to increase their grade.

Question 18 asked students if using iPods in the classroom as an educational device would cause classroom distractions. Fourteen students agreed and 12 disagreed with this question. A mean of 3.02 was recorded. Students were undecided with this question.

Question 19 asked if using cell phones in the classroom as an educational device would cause classroom distractions. Twelve students strongly agreed and 15 students strongly disagreed to this question. There was a mean of 2.82. Students were undecided with this question.

Question 20 asked if students felt a change allowing cell phones and iPods as educational devices inside school would be a positive change in today's society. Twenty-one students strongly agreed with this question, 10 agreed, 9 were undecided, and 6 disagreed. There was a mean of 4.0 and students tended to agree with this question. Refer to Table 1 for a summary of results to the student survey.

<b>Table 1</b>						
<b>Using Cell Phones and iPods as Learning Tools</b>						
<b>Survey Question</b>	<b>SA-5</b>	<b>A-4</b>	<b>U-3</b>	<b>D-2</b>	<b>SD-1</b>	<b><math>\bar{X}</math></b>
1. I use my cell phone as an educational device to complete class assignments inside the classroom (Examples include, but not limited to: dictionary, calculator, internet for research).	21	12	3	7	3	3.89
2. I use my cell phone as an educational device to complete class projects inside the classroom (Examples include, but not limited to: dictionary, calculator, internet for research).	19	8	7	9	3	3.67
3. I use my cell phone as an educational device to complete homework while at home (Examples include, but not limited to: dictionary, calculator, internet for research).	18	18	3	4	3	3.95
4. I use my iPod as an educational device to complete class assignments inside the classroom (Examples include, but not limited to: Podcasts, educational videos, and internet).	11	11	5	12	7	3.15
5. I use my iPod to complete class projects inside the classroom (examples include, but not limited to: Podcasts, educational videos, and internet).	14	9	5	12	6	3.19
6. I use my iPod while complete homework (examples include, but not limited to: Podcasts, educational videos, and internet).	18	10	4	9	5	3.59
7. I listen to music on my iPod while complete class assignments in school.	22	14	4	4	2	4.39
8. I listen to music on my iPod while completing homework while at home.	31	12	2	1	0	4.59
9. Listening to music on my iPod helps to avoid classroom distractions.	27	10	4	2	3	4.22
10. Listening to music on my iPod helps to avoid distractions at home.	29	11	2	3	1	4.39
11. I listen to my iPod while taking a test in the classroom.	17	14	4	9	2	3.76

12. I listen to my iPod while studying for a test at home.	29	6	3	5	3	4.15
13. I use my cell phone as an educational device when I am studying for a test.	22	4	5	8	7	3.56
14. I have had at least one teacher throughout the school year allow me to use my cell phone or iPod as an educational device in the classroom.	27	11	3	1	4	4.35
15. My parents allow me to use my cell phone or iPod as an educational device at home.	34	6	6	0	0	4.6
16. Being able to use my cell phone in class as an educational device would increase my classroom grades and test scores.	22	11	9	4	0	4.11
17. Being able to use my iPod in class as an educational device would increase my classroom grades and test scores.	21	10	8	6	1	3.96
18. Using iPods in the classroom as an educational device would cause classroom distractions.	14	4	9	7	12	3.02
19. Using cell phones in the classroom as an educational device would cause classroom distractions.	12	5	7	7	15	2.82
20. I feel a change allowing cell phones and iPods as educational devices inside school would be a positive change in today's society.	21	10	9	6	0	4

## **RESEARCH GOAL I**

H<sub>1</sub>: Students using their cell phone as a learning tool by accessing the internet, calculator, and dictionary positively affects classroom grades.

Chi-Square calculations were performed with the data retrieved from the surveys on cell phones. The parameters included were did or did not use cell phones and the perimeters for the grade point averages were 1.0-2.9 for the low level GPA and 3.0-4.0

for the high level GPA range. The Chi-Square statistic ( $X^2$ ) for this data as displayed in Table 2 was .18. There was 1 degree of freedom. The level of significance at the .05 level was 2.71. The level of significance at the .01 level was 5.41. See Table 2 for this analysis.

<b>Table 2</b>		
<i>Chi-Square Matrix, Students using their cell phone as learning tools to positively affect classroom grades.</i>		
	<b>1.0-2.99 GPA</b>	<b>3.0-4.0 GPA</b>
<b>Did Use</b>	<b>16</b>	<b>16</b>
<b>Did Not Use</b>	<b>8</b>	<b>6</b>

## **RESEARCH GOAL II**

H<sub>2</sub>: Students using iPods as a learning tool and to decrease distractions would have a positive effect on classroom grades.

The next Chi-Square calculation was performed with the data retrieved from the surveys on iPods. The parameters were did or did not use iPods and the parameters for the grade point averages were 1.0-2.9 for the low level GPA and 3.0-4.0 for the high level GPA range. The Chi-Square ( $X^2$ ) for this data displayed in Table 3 was .73. There was 1 degree of freedom. The level of significance at the .05 level was 2.71. The level of significance at the .01 level was 5.41. See Table 3 for this analysis.

<b>Table 3</b>		
<i>Chi-Square Matrix, Students using their iPod as learning tools to positively affect classroom grades.</i>		
	<b>1.0-2.99 GPA</b>	<b>3.0-4.0 GPA</b>
<b>Did Use</b>	<b>10</b>	<b>12</b>
<b>Did Not Use</b>	<b>14</b>	<b>10</b>

### **SUMMARY**

Chapter IV provided results to data collected through a 20 question survey titled “Using Cell Phones and iPods as Learning Tools.” The survey was distributed to 50 high school students to complete in the areas of cell phone and iPod usage. Of 50 students, there were 46 surveys returned or 92 percent. Chapter IV discussed each of the results and mean for each of the 20 survey questions. The mean was computed to determine whether or not the students strongly agreed, agreed, were undecided, disagreed, or strongly disagreed with each survey question pertaining to Research Goal 1, whether or not students using their cell phone as a learning tool by accessing the internet, calculator, and dictionary positively affects classroom grades and Research Goal 2, whether or not students used their iPod as a learning tool and to decrease distractions would have a positive effect on classroom grades. The student responses to each survey question and the mean were reported.

The student's grade point averages were compared with whether or not they did or did not use a cell phone and an iPod as a learning tool. The Chi-Square statistic was used to further analyze the data. The results for Research Goal 1 and 2 were computed. Chapter V will provide the Summary, Conclusions, and Recommendations of the Study.

## **CHAPTER V**

### **SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS**

The purpose of this chapter was to report the summary, conclusions, and recommendations of this study. The information was based on the results of research data obtained through a survey given to 50 students enrolled in a marketing course at Oscar Smith High School. There were a total of 46 students that completed the survey for this study.

#### **SUMMARY**

The problem of this study was to determine the relationship between high school student's use of cell phones and iPods and their effect on classroom grades. There were two research goals that were used to find an answer to this problem. Research Goal 1 was to determine if students use their cell phone as a learning tool by accessing the internet, calculator, and dictionary positively affects classroom grades. Research Goal 2 was to determine if students use iPods as a learning tool and to decrease distractions would have a positive effect on classroom grades.

The significance of this research study was to determine whether or not the use of iPods and cell phones will affect student's grades inside the classroom. Students use their cell phones and iPods every day. They were allowed inside a school building, but they were not allowed inside the classroom. Students had become dependent on their technology for a variety of reasons and this study was to show if students were allowed to

have access to their cell phones and iPods for educational purposes if it would affect their grade inside the classroom.

There were a given amount of limitations associated with this study, which consisted of the fact the study was only done in one high school, the sample of the study were completed by 10<sup>th</sup> through 12<sup>th</sup> grade high school marketing students, the students grade point averages used in the study were from the end of the second semester during the 2009-2010 school year, and a sample of 50 marketing students was used to collect and analyze the data.

The population of this study was sophomore through senior high school marketing classes. All 50 students were randomly selected to be a part of the study. There was a survey and a parent consent letter given to the students to be signed before the student was allowed to complete the survey. All grade point average data were acquired from the guidance department. The Chi-Square method of statistical analysis was used to complete the procedure for student's usage of cell phones and iPods.

## **CONCLUSION**

Research Goal 1 was to determine if students using their cell phone as a learning tool by accessing the internet, calculator, and dictionary positively affected classroom grades. According to the data analyzed through the Chi-Square, it was calculated to be .18. This value did not exceed the .05 level of significance,  $p > .05 = 2.71$ . Therefore, the researcher rejects the statement that using cell phones as a learning tool will positively affect classroom grades.

Research Goal 2 stated was to determine if students using iPods as a learning tool and to decrease distractions would have a positive effect on classroom grades. According to the data presented through Chi-Square, it was calculated to be .73. This value did not exceed the .05 level of significance because  $p > .05 = 2.71$ . Therefore, the researcher rejects the statement that using iPods as a learning tool will positively affect classroom grades.

## **RECOMMENDATIONS**

Based upon the research findings and conclusions of this study, the researcher has included recommendations. The first recommendation is that school systems need to think of another way to keep cell phones and iPod's out of the classroom if they cannot be used for education. The second recommendation is for school systems to employ new ideas to incorporate everyday technology, such as iPods inside the classroom as a learning tool. This can be done by having "classroom sets" of iPods or iPods that only teachers can use with students. Cell phones will always be a classroom distraction if they are continued to be allowed inside the school building. A third recommendation is for the schools to employ a policy that phones must be left inside the car, or at home. Schools have ways of getting important messages to parents during emergencies, so students do not need their phone attached to their hip or near them during the school day.

The findings presented in this study should be passed along to appropriate school personnel to show how to better monitor cells phone and iPod's in schools. Students do not believe these devices will help their grades. They see it as a classroom distraction when used inappropriately. A final recommendation is for research to be continued in order to employ ways to use the technology student's use in their everyday lives, such as

cell phones and iPods, so students will one day be able to see how these devices could be a possible benefit to them.

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# APPENDIX A

## STUDENT SURVEY

**Title:** Using Cell Phones and iPods as Learning Tools

**Purpose:** To determine student’s opinions on how their use of cell phones and iPods as a learning tool affects their classroom grades.

**Directions:** Please read the following survey questions and indicate with a check mark whether you A-Agree, SA – Strongly Agree, U- Undecided, D-Disagree, or SD- Strongly Disagree. Write down your age and student grade level. This is a confidential survey. Please do not write your name.

Survey Question	SA	A	U	D	SD
1. I use my cell phone as an educational device to complete class assignments inside the classroom (Examples include, but not limited to: dictionary, calculator, internet for research).					
2. I use my cell phone as an educational device to complete class projects inside the classroom (Examples include, but not limited to: dictionary, calculator, internet for research).					
3. I use my cell phone as an educational device to complete homework while at home (Examples include, but not limited to: dictionary, calculator, internet for research).					
4. I use my iPod as an educational device to complete class assignments inside the classroom (Examples include, but not limited to: Podcasts, educational videos, and internet).					
5. I use my iPod to complete class projects inside the classroom (examples include, but not limited to: Podcasts, educational videos, and internet).					
6. I use my iPod while complete homework (examples include, but not limited to: Podcasts, educational					

videos, and internet).					
7. I listen to music on my iPod while complete class assignments in school.					
8. I listen to music on my iPod while completing homework while at home.					
9. Listening to music on my iPod helps to avoid classroom distractions.					
10. Listening to music on my iPod helps to avoid distractions at home.					
11. I listen to my iPod while taking a test in the classroom.					
12. I listen to my iPod while studying for a test at home.					
13. I use my cell phone as an educational device when I am studying for a test.					
14. I have had at least one teacher throughout the school year allow me to use my cell phone or iPod as an educational device in the classroom.					
15. My parents allow me to use my cell phone or iPod as an educational device at home.					
16. Being able to use my cell phone in class as an educational device would increase my classroom grades and test scores.					
17. Being able to use my iPod in class as an educational device would increase my classroom grades and test scores.					
18. Using iPods in the classroom as an educational device would cause classroom distractions.					
19. Using cell phones in the classroom as an educational device would cause classroom distractions.					
20. I feel a change allowing cell phones and iPods as educational devices inside school would be a positive change in today's society.					

Thank you for your participation in this survey

## **APPENDIX B**

### **PARENT CONSENT FORM**

06/01/2010

Dear Parents,

We are conducting a study involving student's use of cell phones and iPods and how they affect students' classroom grades. To conduct this study we need the participation of children between the 10<sup>th</sup> through 12<sup>th</sup> grade, male and female between the ages of 15-19 enrolled in vocational education courses at Oscar Smith High School. The attached "Permission for Child's Participation" form describes the study and asks your permission for your child to participate.

Please carefully read the attached "Permission for Child's Participation" form. It provides important information for you and your child. If you have any questions pertaining to the attached form or to the research study, please feel free to contact Ms. Lynsey Gore at the numbers below.

After reviewing the attached information, please return a signed copy of the "Permission for Child's Participation" form to your child's teacher if you are willing to allow your child to participate in the study. Keep the additional copy of the form for your records. Even when you give consent, your child will be able to participate only if he/she is willing to do so.

We thank you in advance for taking the time to consider your child's participation in this study.

Sincerely,

Lynsey Gore, 548-0696, 1994 Tiger Dr, Chesapeake, VA 23320

## **PERMISSION FOR CHILD'S PARTICIPATION DOCUMENT**

The purposes of this form are to provide information that may affect decisions regarding your child's participation and to record the consent of those who are willing for their child to participate in this study.

**TITLE OF RESEARCH:** Using Cell Phones and iPods as Learning Tools

**RESEARCHERS:** Lynsey E Gore

**DESCRIPTION OF RESEARCH STUDY:** This research student will determine if students using their iPod or cell phone as a learning tool will increase their classroom grades.

If you decide to allow your child to participate in this study, your child will be asked to complete a 20 question survey on a scale between strongly agree, agree, undecided, disagree, and strongly disagree. Your child's participation will take approximately 30 minutes.

**EXCLUSIONARY CRITERIA:** In order for your child to participate in this study, your child must be in the 10<sup>th</sup> through 12<sup>th</sup> grade at Oscar Smith High School.

**RISKS:** There are no risks for the research participants.

**BENEFITS:** Determining that allowing cell phones and iPods to be used by children as an educational tool will positively affect their classroom grade. A summary of results will be made available to both teachers and parents.

**COSTS AND PAYMENTS:** There are no costs or payments for the research participant.

**NEW INFORMATION:** You will be contacted if new information is discovered that would reasonably change your decision about your child's participation in this study

**CONFIDENTIALITY:** Participants will be assigned a code number so that your child's name will not be attached to his or her responses. Only researchers involved in the study or in a professional review of the study will have access to data sheets. All data and participant information will be kept in a locked and secure location.

**WITHDRAWAL PRIVILEGE:** Your child's participation in this study is completely voluntary. It is all right to refuse your child's participation. Even if you agree now, you may withdraw your child from the study at any time. In addition, your child will be given a chance to withdraw at any time if he/she so chooses.

**COMPENSATION FOR ILLNESS AND INJURY:** Agreeing to your child's participation does not waive any of your legal rights. However, in the event of harm arising from this study, neither Old Dominion University nor the researchers are able to give you any money, insurance coverage, free medical care, or any other compensation. In the event that your child suffers harm as a result of participation in this research project, you may contact Dr. David Swain, Chair of the Institutional Review Board at (757) 683-6028.

**VOLUNTARY CONSENT:** By signing this form, you are saying 1) that you have read this form or have had it read to you, and 2) that you are satisfied you understand this form, the research study, and its risks and benefits. The researchers will be happy to answer any questions you have about the research. If you have any questions, please feel free to contact Lynsey Gore 757-548-0696.

If at any time you feel pressured to allow your child to participate, or if you have any questions about your rights or this form, please call Dr. David Swain, Chair of the Institutional Review Board Chair (757-683-6028) or the Old Dominion University Office of Research (757-683-3460).

Note: By signing below, you are telling the researchers YES, that you will allow your child to participate in this study. Please keep one copy of this form for your records.

**Your child's name (please print):** \_\_\_\_\_

**Your child's birth date:** \_\_\_\_\_

**Your name (please print):** \_\_\_\_\_

**Relationship to child (please check one):**

**Parent:** \_\_\_\_\_

**Guardian:** \_\_\_\_\_

**Your Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_