



## PERCEIVED EFFECTS OF MOBILE PHONES ON THE ACADEMIC PERFORMANCE OF THE COLLEGE OF TEACHER EDUCATION STUDENTS

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**ABSTRACT:** Cellular phones are an essential part of college life and culture. Even a casual observation of today's college students will reveal cell phones being used, both overtly and covertly, in every possible campus setting, including the classroom. Research recommends that college students frequently use the cell phone during class time despite the rules against doing so (Tindell and Bohlander, 2012). As cell phone technology continues its rapid development, the device appears to be contributing to student's learning and improved academic performance. This study aimed to determine the perceived effects of using mobile phones among students of the College of Teacher Education. The method of research used in the conduct of the study was the descriptive-correlation method. It was used to describe of the perceived effects of using mobile phone in the academic performance of the College of Teacher Education students. A structured questionnaire was used in gathering the data. It was pretested and validated before it was finally administered to the respondents. Results of the study showed that there is no significant relationship on the effects of mobile to the academic performance of the respondents; nonetheless, this study still recommends the proper utilization of the cell phones in the classroom.

**KEYWORDS:** cell phones, academic performance, technology, perceived effects, modernization, young generation

### INTRODUCTION

Modernization in all walks of life had become a usual phenomenon especially for the younger generation. Today, the human relationship has been affected by the manipulation of the different kinds of technology like mobile phones, laptops and the like that can be used to improve and make our life easier. Social media is considered as phenomenal in today's generation. It conquered the world by storm and become more popular to the youth of most nations including the Philippines. Overtime, social media has become more



influential which has changed the way individuals communicate, share information and the relationship in interacting some various activities. (Kaplan & Haenlein 2010). Mobile phone is the most common gadget we used for communication. It started with 5110 model followed by QWERTY keypads, touch screens, and now the air shuffle. As time goes by, there are a lot of changes happened to the model of the phone. According to some textbooks, “ang uso noon ay lipas na ngayon, at ang sikat ngayon ay laos na bukas”. It’s easy for the people to loss interest in using the modern technology. If there are new inventions of gadget, the people have the interest and desire to have it.

Cellular phones are an essential part of college life and culture. Even a casual observation of today’s college students will reveal cell phones being used, both overtly and covertly, in every possible campus setting, including the classroom. Research recommends that college students frequently use the cell phone during class time despite the rules against doing so (Tindell and Bohlander, 2012). As cell phone technology continues its rapid development, the device appears to be contributing to student’s learning and improved academic performance. For example, modern “smart phones” provide students with immediate, portable access to many of the same Education-enhancing capabilities as an Internet-connected computer, such as online information retrieval, file sharing, and interacting with professors and fellow students (Bull and McCormick, 2012; Tao and Yeh, 2013).

Conversely, recent research suggests that many college students perceive the cell phone primarily as a leisure device, and most commonly use cell phones for social networking, surfing the Internet, watching videos, and playing games (Lepp, Li and Barkley, 2015; Lepp, Barkley, Sanders, Rebold, and Gates, 2013). If typically utilized for leisure rather than education, then cell phones may disrupt learning within academic setting (Levine, Waite and Bowman, 2007). Thus, the potential relationship between cell phone use and academic performance is not clear. Although, the cell phone is likely to be on hand while college students are in class and studying, research investigating its relationship to academic performance is limited. In an early study of the phenomenon, Sanchez-Martinez and Otero (2009) used a combination of self-reported monthly cell phone expenses and frequency of use data to identify intensive cell phone users in a large sample of Spanish high school



students. In the study, intensive cell phone use was related to school failure as well as other negative behaviors such as smoking and excessive alcohol use. More recent studies operationalize cell phone use as calling and texting while utilizing a variety of measure for academic performance. For example, Jacobsen and Forstre (2100) identified a negative relationship between calling, texting, and self-reported grade point average (GPA) among university students in the United States. Similarly, Hong Chiu and Hong (2012) found that calling and texting were positively correlated with a self-reported measure of academic difficulty among a sample of female, Taiwanese university students. While these studies provide a starting point for understanding the relationship between cell phone use and academic performance, they neither use objective measure of academic performance nor do they take into account the cell phone's expanding capabilities beyond calling and texting.

Recently, multitasking has emerged as a possible explanation for the negative relationship between electronic media use (including cell phone use) and academic performance (Jacobsen and Forstre, 2011; Junco and Cotton, 2011; Karpinski et al., 2013; Kirschner and Karspinski, 2010; Rosen et al., 2012). Indeed, several studies reveal that students frequently report using a variety of electronic media including cell phones while in class, studying, and doing homework (Jacobsen and Forstre, 2011; Junco and Cotton, 2011; Sanchez-Martinez and Otero, 2009; Tindell and Bohlander, 2012). Several recent studies, using a variety of methods, identify a negative relationship between multitasking and academic performance. First, Wood et al. (2012) measured the influence of multitasking with an array of electronic media on students' ability to learn from typical, university classroom lectures. Emailing, MSN messaging, and Facebook use via computer were all investigated as was cell phone texting. Results showed that multitasking with any of the technologies was associated with lower score on follow-up tests compared with students who did not multitask. Second, Junco and Cotton (2012) used a hierarchical regression to determine the power of multitasking to predict actual cumulative college GPA. Results showed that Facebook-multitasking and texting-multitasking were significantly and negatively related to college GPA after controlling for sex, actual high school GPA, time preparing for class, and a student's Internet skills. Finally, Rosen et al., (2013) observed the study behaviors as well as study settings of a sample of middle school, high school, and



university students. Participants were observed for 15 minutes with on-task and off-task behavior recorded every minute. Results showed that participants typically became distracted by media such as Facebook and texting after less than 6 minutes of studying. Furthermore, measurements of daily Facebook use and daily texting behaviour predicted off-task behavior during study periods as well as self-reported GPA.

McNeal and Hooft (2006) found cell phones as important resources which make teaching more relevant and meaningful thereby improving students' literacy and numeracy skills. In another study of Attewell (2004) reported how cell phone use encourages both independent and collaborative learning experiences and in the process of raising self-esteem and self-confidence. Kukulska-Hulme and TRaxter (2007) believe that cell phones are forms of multiple literacy which provides a bridge between the real life texts of the community and formal learning thereby providing a multimodal literacy approach to learning. They also revealed how cell phones facilitate designs for authentic learning leading to personalized learning that largely targets real world problems and involves projects of relevance and interest to the learner. Cell phone use has also been found to support lifelong learning that occurs during everyday life and learning that occurs in spontaneity and impromptu settings and outside the formal environment Brown (2005). Kawasaki (2006), Jeon-Hynn et al., (2008) and Ling (2005) reported how students who are preoccupied with their mobile phones tend to experience psychological disturbances, depression, lower self-esteem and interpersonal anxiety when they study without their cell phones. Helszer (2004) reports on how some Education administrators spend much time and energy developing policies and procedures to keep cell phones out of education at the expense of International Journal of Education and Research Vol. 1 No. 10 October 2013 developing sound policies that integrate cell phone use as knowledge construction and data tools. For example, Gilroy (2004) pointed out that 85% of professors' surveyed in Germany stated that they wanted cell phones banned from tertiary education mainly because of students cheating in tests, accessing unfiltered internet sites and secretly taking pictures without permission. Cell phone use has also been found to reduce students thinking abilities and shortening the attention span of students dramatically that students struggle to read anything longer than a social network posting (Young:1996). Research has concluded that m-learning works best



when used as part of a blend (Brown: 2005, McHugo and Hall 2006) that is, as a supplementary tool that is used in combination with traditional method such as lectures, paper based materials and other ICT tools.

Aoki and Downess (2004) focused on the behavioural and psychological aspects of cell phones usage among college students. They tried to find the reasons behind why a technology is adopted in a particular way. They identified several attitudinal factors based on the exploratory study including necessity in modern times, cost efficiency when compared to landline phone, safety or security and dependency. The study also endeavoured to look at the motivational and behavioural characteristics of mobile phone usage. The authors tried to combine their results and the result of previous research to find the trends in usage by the youth, “why college students in the US use cell phone, what they think of the technology, and how they use it”.

The motivational themes identified by the study include personal safety, financial incentive, information access, social interactions, parental contacts, time management/coordination, dependency, image, and privacy management. The results of the focus group interviews indicated five distinct user groups in terms of their attitudes toward their cell phone usage and in terms of the levels of integrating cell phones into their lives.

According to Barker, Krull and Mallinson, the impacts of mobile phone technologies on learning are portability, collaboration and motivation enhancing students, parents and teachers’ educational system. The mobile phone portability enables student learning to be ubiquitous in obtaining or retrieving course information through their mobile phones as they are carried from class to class or wherever. Their portability can improve a wide variety of learning settings, namely a field trip, the classroom, or outside the campus. Collaboration social networks such as Facebook and Twitter accessed on students’ mobile phones allow students to form groups to distribute and add together their knowledge, and share information with ease, and this could result in a more successful collaborative learning. The use of mobile phones results in increasing parents’ involvement in education, and thus their children’s learning and capabilities. Motivation where mobile phones are incorporated in a large classroom, students appear to be more engaged in learning process. Mobile phones in education increase students’ will to learn. They take the initiative in using the device as a



learning tool. Teachers report that the use of mobile phones in learning increases group participation in activities done during learning in class.

The impact that cell phones have made in high schools and college students has been both positive and negative. For example, the advancements of cell phones and tablets have played a major role in the utilization of education in the classroom. In the 1990's, cell phones and tablets did not exist in the classroom, students had to rely solely on computers that were usually placed in computer lab, or in the library. This can be considered a setback to the teacher and to the student because it requires students to leave the classroom environment to use the internet for research. In the discussion made by Robert Earl, the use of cell phones by students during their classes. He provides the perceptions of cell phones use affecting student's ability to learn. "Negative consequences and concerns about cell phone use include poor spelling, bad grammar and distracted attention" The authors provide negative attributes to the cell phone to demonstrate why teachers and professors feel that they need to ban cell phones and other technology, such as tablets in their classrooms.

Researchers have discovered that the use of mobile phone in school is problematic. A ling and Helmerston (2000) states that mobile phone is "at cross purpose with the mission of the school". While in school, students are supposed to take on their prescribed roles as students with full concentration on their studies and free from contact with the outside world. However, the mobile phone gives room to blending students' roles thus distracting and disrupting the students' academic work (Gergen, 2002; Halpen, 2003 and Franzini, 2002). In the past when fixed telephones were the norm in schools, there were minimum distractions and disruptions but presently with the invasion of mobile phone and the eagerness of parents to maintain contact with their wards, the device is becoming part of the classroom. Thu, the mobile phone has the power to undermine the schools' authority and weaken their control over students as well as it affects their level of academic performances.

In review, emerging research suggests that texting, Internet use, email, and social-networking sites such as Facebook can potentially increase multitasking and task-switching during academic activities and decrease academic performance. Notably, all of these



previously investigated activities can now be accomplished with a single, Internet-connected cell phone. Therefore, measurements of cell phone use should not be limited to only texting and calling but should take this wide array of activities into account. Furthermore, and in consideration of the ubiquity of cell phone, the relationship between this expanded definition of cell phone use and academic performance warrants investigation.

Furthermore, students had to rely on reading material out of the library which slowed down the research process for writing papers and/or thesis. Now, here we are in the 21<sup>st</sup> century, classrooms are filled with a large variety of laptops, cell phones and tablets. With the availability of the internet being near is limitless, but the technology can be very distracting to students. The students' distraction is thus distracting to the teachers or professors and to the students' fellow classmates. Over the 50 years, modern advancements in technology have played a crucial role in the development of education in both negative and positive aspects.

## **STATEMENT OF THE PROBLEM**

This study aimed to determine the perceived effects of using mobile phones among students of the College of Teacher Education.

Specifically, this study aimed to answer the following:

1. What is the profile of the respondents in term of:
  - 1.1. Age
  - 1.2. Sex
2. What is the perception of the respondents on the effects of the use of mobile phones?
3. What is the academic performance of the respondents?
4. Is there a significant relationship between the respondents' perception on the effect of using mobile phones to their academic performance?

## **METHODOLOGY**

The method of research used in the conduct of the study was the descriptive-correlation method. It was used to describe of the perceived effects of using mobile phone in the academic performance of the College of Teacher Education students. A structured



questionnaire was used in gathering the data. It was pretested and validated before it was finally administered to the respondents.

## STATISTICAL TREATMENT

The data gathered were analysed and interpreted using the following:

**Frequency and Percentage Distribution-** used to determine the respondents' profile in terms of age,

sex and course.

**Weighted Mean Distribution-** used to determine the respondents' perception on the impacts of using

mobile phones to their academic performance.

**Pearson- r Analysis** – used to determine the relationship between the respondents' profile in terms of

age and the respondents' academic performance. It will also be used to determine the

relationship between the respondents' perception on the impacts of using mobile phones to their academic performance

## RESULTS AND DISCUSSIONS

### 1. Respondents' Profile

**Table 1**

**Frequency and Percentage Distribution of Respondents' Profile in term of Age**

Age	Frequency	Percentage
23-24	3	5.00
21-22	4	6.00
19-20	20	30.00
17-18	39	59.00
<b>Mean Age = 18.45</b>	<b>66</b>	<b>100.00</b>

Table 1 shows the frequency and percentage distribution of the respondents' profile in terms of age. Findings reveal that majority or 59% of the respondents are 17-18 years old. Only 5 % of the respondents are 23.24 years old. Findings also show that their mean age is 18.45.





**Table 1.1**

**Frequency and Percentage Distribution of the Respondents' Profile in terms of Sex**

Sex	Frequency	Percentage
Male	21	32.00
Female	45	68.00
<b>Total</b>	<b>66</b>	<b>100.00</b>

Table 1.1 shows the frequency and percentage distribution of the respondents' profile in terms of sex. Findings reveal that majority or 68% of the respondents are female while 32% are male. It can be inferred that female is more frequent to use mobile phones than male.

**2. Respondents' Perception on the Effect of Using Mobile Phones to their Academic Performance**

**Table 2: Weighted Mean Distribution of Respondents' Perception on the Effect of Using Mobile Phones to Their Academic Performance**

Statements	Weighted Mean	Descriptive Value
1. I can easily contact my teachers for study purposes.	2.30	Sometimes
2. I can easily contact my classmates to get help in studies	2.64	Always
3. I use dictionary and thesaurus of my mobile phone if needed in class discussion.	2.39	Always
4. I use my mobile phones (internet connection) in searching my assignments.	2.57	Always
5. I tease my fellow mates by sending missed calls through unknown numbers during class discussions.	1.39	Never
6. I spend more money on my mobile phone bill (load) than I spend on my school projects.	1.39	Never
7. I send text messages even class hours.	1.54	Never
8. I play games in my mobile phones during class discussion when my subject is boring.	1.28	Never



9. I search my assignment and just copy the answer without editing.	1.53	Never
10. Instead of copying what is written on the board, I'll just take photos from my classmate's notebook or at the blackboard.	1.84	Someti mes
11. I watch movies and videos during class discussion.	1.18	Never
12. I use the calculator in my mobile phone during quizzes and examination.	1.30	Never
13. I use my mobile phone in listening music while reviewing.	1.5	Never
14. I receive important files and photos through the use of messenger in my mobile phone that is related on my studies.	2.07	Someti mes
15. I use to open my mobile phone during examination.	1.10	Never
<b>Overall Weighted Mean</b>	<b>1.74</b>	<b>Someti mes</b>

**Legend: 2.33 – 3.00 – Always    1.67- 2.32 – Sometimes    1 - 1.66 - Never**

Table 2 shows the perception of the students on the use of mobile phones. An overall mean of **1.74** indicates that students are “**sometimes**” affected on the use of mobile phones. As reflected in the table, majority of the students “**always**” used their mobile phones to easily contact their classmates to get help in studies with a weighted mean of 2.64 followed by the item “I use my mobile phones (internet connection) in searching my assignments” which as rated second highest mean of 2.57 described as “**always**”. The respondents’ perception on the effects of using mobile phones that has the least weighted mean is “I used to open my mobile phone during examination” with 1.10 and a descriptive value of “**Never**”.

### 3. Academic Performance of the Respondents

**Table 3**

**Frequency and Percentage Distribution of Respondents’ Academic Performance**

Grades	Frequency	Percentage
96-100	3	4.00
85-89	39	59.00
80-84	9	14.00
75-79	6	9.00
Below 75	9	14.00
<b>Total</b>	<b>66</b>	<b>100.00</b>
<b>Overall Weighted Mean</b>	<b>83.7</b>	<b>Satisfactory</b>



**Legend:** 90 – 100-Outstanding 85 – 89-Very Satisfactory 80 – 84-Satisfactory 75 – 79-Fair Satisfaction Below 75-Did not meet Expectation

Table 3 shows the Frequency and Percentage Distribution of Respondents' Academic Performance. Findings reveal that majority or 59 % of the respondents have a grade of 85-89 with a descriptive value of "Very Satisfactory" followed by 14% of the respondents having a grade of 80-84 with a descriptive value of "Satisfactory" and below 75 with a descriptive value of "Did not Meet Expectation". An overall mean of 83.7 further indicates that students have a satisfactory grade in their Academic Performance. It can be inferred that majority of the students performed well in their academic performance.

#### 4. Relationship Between the Respondents' Perception on the Effect of Using Mobile Phones to their Academic Performance

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**Table 4: Analysis on the Significant Relationship between the Respondents' Perception on the Effect of Using Mobile Phones and Academic Performance**

Computed r-value	Degrees of Freedom	Critical Value at .05	Decision
-0.036	64	0.250	Not significant

Table 4 shows the Analysis on the significant Relationship Between the Respondents' Perception on the Effect of Using Mobile Phones and Academic Performance. As reflected in the table, the computed r-value is -0.036 while the degree of freedom is 64 and the critical value at 0.5 is 0.250 which means that there is no significant relationship between the respondents' perception on the effect of using mobile phones to their academic performance.

### CONCLUSIONS

Based on the findings of the study, it is concluded that there is no significant relationship on the effects of mobile to the academic performance of the respondents.

### RECOMMENDATIONS

From the foregoing conclusion, it is recommended that even though that there is no significant relationship between the respondents' perception on the effect of using mobile phones to their academic performance there should be a limitation on the use of their



mobile phones especially during class sessions. Time management on the utilization of their gadgets should be inculcated and proper discipline should be emphasized on the students on the use of their mobile phone in order for them to maintain their high grades. There should be a regulation that no students are allowed to enter into their classroom with their cell phones switched on in order to make them concentrate on listening to the teacher and taking notes from the discussion. It is recommended that a follow-up study should be conducted.

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