

A STUDY ON EFFECTS OF MOBILE PHONE USES ON ACADEMIC PERFORMANCE OF UNDERGRADUATE STUDENTS – WITH REFERENCE TO KATHMANDU VALLEY, NEPAL

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ABSTRACT

The main purpose of the work was to find out the positive negative effects of mobile phone uses on academic performance of the undergraduate students with reference to Kathmandu valley Nepal. Mobile phone technology would enhance the students' status if they use it appropriately in academic activities in the school, college. Students who use mobile phones excessively, their grade point average (GPA) can be low. The study was carried out to find the effects of mobile phone uses on academic performance of undergraduate students. Quantitative comparative study was carried out from January to August 2019 to analyze the effect of mobile phone uses on the academic performance of 281 mobile phone user undergraduate students, studying at four different colleges at Kathmandu valley. Their academic performance based on GPA before and after using mobile phone was analyzed. Simple random sampling technique was used to measure the academic performance of the undergraduate students. Researcher-administered semi-structured questionnaire was formulated and was distributed to the respondents for data collection. The raw data were processed and analyzed by SPSS version 20. Correlation and paired t-test were applied to show the relationship between mobile phone use and academic performance. There were 95 students (33.8%) aged 20 years and 176 respondents (62.6%) were female. GPAs in first and current semester were non-significantly related with gender of the students (p values 0.380 and 0.823 respectively). Age of students was mild positively correlated with the mean GPA in first and current semester ($r = 0.146$ and 0.375 respectively) and were statistically significant (p values 0.014 and 0.000 respectively).

Keywords: Academic performance; grade point average (GPA); mobile phone; undergraduate students; Kathmandu Valley.

1 INTRODUCTION

1.1 Background

The mobile phone is established as a significant learning methodology. The mobile phone has countless advantages i.e. the students can access internet for academic purpose any time & anywhere. The mobile phone technology has various applications (app) which are very much beneficial for the university students (Klimova, 2019).

The mobile phone technology is growing rapidly all over the world since last centuries. It is also rapidly transforming the lifestyle of people, especially in the developed countries in the world. Nowadays, the mobile phone use is very common phenomenon even in the developing and underdeveloped countries. Children and young people have these days grown up with this technology since it started in the world. The young people have using the internet technology (Kautish et al 2008, 2013, 2016, 2018, 2019). not only through laptop or desktop but also through mobile phones or smartphones. It is being very much significant for the adolescents in the world for entertainment, chatting, and messaging. Technologies of mobile phone and internet are even being misused by the youth and adolescents for pornographic videos in both the developed and the developing countries. Such misuse of the mobile phones can be harmful for the children's mental growth and academic performance (Liringstone & Smith, 2014).

Early time in 80s the mobile phone came in the world; it means the mobile invented in 80s. At that time mobile phone was too bulky and only military personnel were used in their army camp. The first generation of the mobile phone was used for only communication nothing more than that. At that time people were used mobile phone only 30 minutes for communication due to poor performance of the battery. After few years' researcher came up with handy mobile phone in improved manner. In 80s and 90s mobile phone eve loving and become popular too in the market in India. The first cell phone was launched in 1995 in India (Jain & Singh, 2016).

Today mobile phone is becoming necessity tool from small kids to old man for different purpose. It is becoming crucial tool in our daily life. No one can seat silence without mobile phone. At old age it was totally different in shape and size. Gradually it has improved in different shape and size. Early age, the mobile phone was limited people hands due to expensiveness of the technology. The mobile phone came in India 1995 with different shape and size.

The smart phone or mobile phone and tablets are rapidly increasing in the global market to communications in the community with their friends, relatives and for entertainment purpose. It is becoming the best tool for information sharing in the global perspectives. According to 2014 baseline survey by the few Research Center sows that, 58% of young people in the United States are engaged with mobile phone or smart phone to communicate to make social relationship. The study showed that, the mobile phone revolution penetrating to every sector in the world i.e. hospitality, health care, education and corporation etc. (Linton & Kwortnik, 2015).

The mobile phone technology has become significant for new innovation, communication and dissemination of the innovation. It is perceived as the Swiss army's knife which can keep the important numbers. The mobile phone or smart phone technology is growing rapidly and solving the practical problems via different software applications (Suominen, et al., 2014).

Numbers of mobile phones or smart phones are increasing day by day. Research conducted by Crompton & Burke showed that large number of age group from 18-29 years are using mobile phones excessively during the college time which can affect their academic performance. They found that 95% population are living with mobile phone or smart phone in the USA. The research also supported the positive implication

of the mobile phone in teaching-learning process in the college or universities (Crompton & Burke, 2018).

Mobile phone technology will enhance the students' status if they use it appropriately in academic activities in the school, college, etc. The research showed the drawback of the mobile phones or smart phones that they may decrease the productivity of the students if they use it excessively in the college. It can also distract the focus of the students on the academic activities in the classroom. The strategy built for minimizing irrational usage of smart phone is called difference in difference (DID). This technique is widely adopted as a mathematical method, generally used for economic and numeric investigation in community disciplines to extrapolate the data from the observational studies to the experimental studies. This is based on the technique of analyzing the disparity consequence of a management. (Abadie, 2005) National People Database (NPD) has been used to find out the total number of mobile users and to track the activities of the students' in the college (Beland & Muphy, 2016).

In Nepal, there is 90% of areas covered by the mobile phone users. The mobile industry is unique for developing country Nepal. Electricity supply is not sufficient in whole Nepal. So, some areas are not covered by the mobile phones. In Nepal, there are five companies of telecommunication: NTC (Nepal Telecommunication), NCell, Hello Nepal (Nepal Satellite Telecom), Smart Cell (Smart Telecom), and United Telecommunication Limited (UTL) etc. (Shah, 2015).

Table 1: Mobile Network Operator Market Share in Nepal, (Shah, 2015)

Operator	Market share
Hello Nepal (Nepal Satellite Telecom)	0.6%
NCell (TeliaSonera)	49.3%
Nepal Telecom	43.4%

Smart Cell (Smart Telecom)	4.8%
United Telecom	1.9%

1.2 Introduction to Kathmandu Valley

Kathmandu is one of the 13 districts of province number 3. The famous temple of Goddess Pasupatinath is situated in the district. Kathmandu is the central capital and first municipality of the country. It is near to two big cities- Lalitpur district (in the south) and Bhaktapur district (in the east). The city Kathmandu existed in the center of four mountains i.e. Shivpuri, Phulchauki, Nagaarjun, and Chnadrhiri. Kathmandu is located at the height of 4600 feet from the sea level. The area is 50.67 square feet. Kathmandu is 2000-year-old city, originally known as Kantipur or Kantipuri. People following various religions are living together in the city. Kathmandu is also recognized as one of the tourist destinations in the country as well as all over the world (Kathmandu Municipality, 2019).

1.3 Problem Statement

The mobile phone is becoming integral part of the human beings. Now a days the people cannot stay without having a mobile phone. It has tremendous advantages but moreover the mobile phone also becoming problematic for the university students which is not good for them (Thompson, et al., 2018).

The mobile phone technology is being widely exploited in the world for communication and making social relationship. Similar outline of mobile phone usage is seen between undergraduate students in Kathmandu valley. Import and sale of tremendous number of mobile phones are seen in Kathmandu valley, especially during festival seasons. The mobile phone technology has brought the world very closer, making the whole world a global village. The major age group of mobile phone users in India is 15 to 25 years (Vaidya, et al., 2016).

The main haphazard of mobile phone usage is disturbance in the study of school, college, university students. Students who use mobile phones all the time excessively, their grade point average (GPA) and cumulative GPA (cGPA) can be low. Uncontrolled and uninterrupted usage of mobile phones for a long time is affecting the physical and mental health of students i.e., eye problem, spinal cord problem, sedentary lifestyle problem, concentration problem, mental stress, social relation problem, etc. (Beland & Muphy, 2016).

Mobile phone has become the significant tool for the teaching-learning process for the students worldwide. Students may demand and bring very expensive mobile phones in school, college, which lead to financial burden to their parents. Moreover, they may use mobile data package for internet connection even in the school, colleges and may watch nonsense pornographic sites, which cause bad influence for them including academic performance in study the failing rate of the students is very high in the examination after extreme usage of mobile phone and social media (Rabiu, 2016).

1.4 Rationale of the study

The study will find out different effects of mobile phones, which can affect the academic performance of the undergraduate students. Thus, it will be significant for the researcher, colleges, parents, students themselves, society and the country as a whole. Since such research on the effect of mobile phones on academic performance of students has not been conducted in Nepalese setting, this will explore the horizon for the same. Students are seen to be using mobile phones haphazardly in college and also in their homes, which is distracting them from their uninterrupted study. It is very much difficult to explore the effects of mobile phones on academic performance of the students based on general forecast. Thus, the study will be more significant for the enhancement of the academic performance by minimizing one of the distracting factors for the same. Very few studies have been conducted in this area in Nepal. (Impact) on academic performance of students is yet to be explored in large extent in Nepal.

1.5 Aim of the research

The main aim of the research study will be to find out the effects of mobile phones uses on academic performance of the undergraduate students in Kathmandu valley. The aim of the research study will

be to find out the age group who are excessively using mobile phones or smart phones in the college and at home during study or assignment hours.

1.6 Objectives of the study

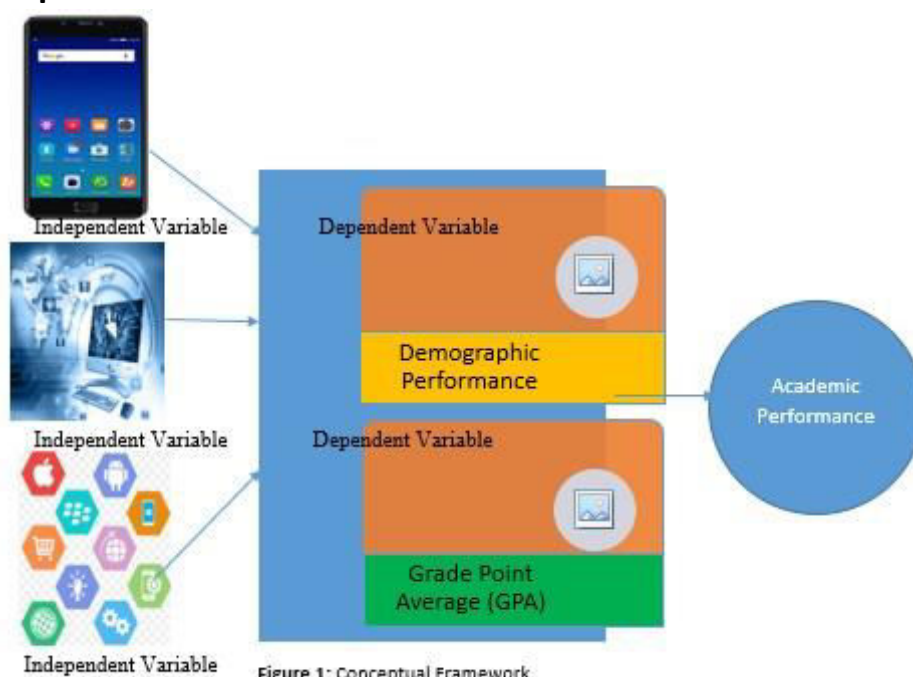
1.6.1 General Objective

- To find the effects of mobile phone on academic performance of undergraduate students.

1.6.2 Specific Objectives

- To assess demographic variables and their roles in academic performance of undergraduate students.
- To assess usage patterns of undergraduate students' mobile uses.
- To compare the academic performance (on the basis of academic grade) of the mobile user students before and after use of mobile phones.

1.7 Conceptual Framework



The conceptual framework directs the path of research and it also explore the whole research study systematically. The main significance of the conceptual framework is make finding more meaningful in the field of research (Adom, et al., 2018). The above conceptual framework has defined dependent and independent variables clearly. Conceptual framework shows the concept of the research study clearly diagrammatically.

1.8 Research Questions

Q1. How do we assess demographic variables and their roles in academic performance of undergraduate students?

Q2. How can we assess usage patterns of undergraduate student's mobile phone uses?

Q3. How can we compare the academic performance (on the basis of academic grade) of the undergraduate mobile user students on the basis of academic grade before and after use of mobile phones?

1.9 Scope of the Research

The finding of this research will help enhance academic performance of undergraduate students by suggesting the strategies to remove one of the distracting factors i.e., excessive mobile phone use.

Close monitoring and code of ethical conduct of research will be applied throughout research to increase the academic performance of the students.

1.10 Operational Definition

Mobile Phone: Mobile phone is wireless communication device. It is one of the most significant components of the information communication technology (ICT).

Academic Performance: The academic performance is related with the students' grades i.e., Grade Point Average (GPA). It is work as a fundamental measurement technique of the students' performance regarding their study.

2 LITERATURE REVIEW

2.1 Comparison table of related work

Table 2: Comparison table of related work

Title	Impact of mobile phone usage on academic performance	The use of mobile learning in higher education: A systematic review	Smartphones' effects on academic performance of higher learning students	Effects of mobile phone use on academic performance of college going young adults in India	The effects of mobile phone usage on the academic performance of ghanaiian students, a case of presbyterian university college Asante-Akyem
Author	Hossain, Md.Moyazz	Helen, Crompton; Burke, Diane	(Kibona & Mgaya, 2015)	Sundari, T Tripura	Frimpong, Kojo Osei; Asare, Samuel; Arthur, David Otoo
Year	2019	2018	2015	2015	2016
Features	The study showed that, there were optimistic influence of the cell phone on academic activities in Bangladesh.	It is empirical evidence of positive impression of cell phone on academic activities of undergraduate level college students.	The statistical result of the whole research explored that there were negative relation between academic activities and Online Social Networking (OSN).	The research study was conducted in Andhra Pradesh India to find out the effects of cell phone use on academic activities of college going young adolescents.	The research study was conducted in Ghana. The title of the study was effect of mobile phone usage on the academic performance.

3 RESEARCH METHODOLOGY

Research method denotes toward numerous consecutive ladders to be accepted by an investigator in reviewing a problematic journals or papers with convinced purposes in opinion. It defines the

technique and procedure useful in the complete topic of the study. It is the method to methodically about the investigation delinquent. It is the strategy building and policy of inquiries considered to response the research questions or examination research hypothesis. Research design is to regulator alteration. It comprises dissimilar dependent and independent variables, categories of research design, research questions, hypothesis sample, data collection activities, technique of analysis etc. Furthermore, methodology is the systematic plan for the research study. In the academic fields there have been used various types of research methodology i.e. qualitative, quantitative, and mixed methodology etc. (Igwenagu, 2016).

3.1 Study Variable

3.1.1 Dependent Variable

- GPA (Grade Point Average)

3.1.2 Independent Variable

- Mobile phones
- Internet Technology
- Apps (Mobile Application)
- Age
- Education

3.2 Study Type

Quantitative study was carried out to analyze the effect of mobile phone uses on the academic performance of the undergraduate students at Kathmandu valley.

3.3 Study Design

The study was comparative evaluation of the undergraduate student's academic performance based on Grade Point Average (GPA) before using mobile and Grade Point Average (GPA) after using mobile phone.

3.4 Study Population

The study population were undergraduate students studying at various colleges in Kathmandu valley such as Samridhi College in Bhaktapur, Nobel College in Sinamangal, Public Youth Campus (PYC) in Pakanachol, Kathmandu, and National College of Engineering Satdobato.

3.5 Ethical Consideration

Verbal and written informed consent were taken from the respondents before data collection. Ethical approval was obtained from the University Ethics Committee (UEC) of Asia Pacific University and the concerned college. Tenets of the Declaration of Helsinki was followed for the research.

3.6 Study Area

The study was conducted at Nobel College, Sinamangal, Kathmandu; Samridhi College, Bhaktapur; National College, Satdobato; and Public Youth Campus (PYC) College, Nayabazar, Kathmandu.

3.7 Study Duration

The study was conducted from January to August 2019. The overall plan mentioned in the Gantt chart.

3.8 Sample size estimation

Academic performance of 281 mobile phone user undergraduate students before the mobile phone use and after the mobile phone use was analyzed.

3.9 Sampling Technique

Simple random sampling technique was used in the research study in Kathmandu valley to measure the academic performance of the undergraduate students. Total number of respondents were 281.

3.10 Data Collection Tool

Data collection tools were researcher-administered semi-structured questionnaire, which was formulated in the guidance of the supervisor and based on the extensive literature review of the relevant published articles

3.11 Data Collection Techniques

Questionnaire was distributed to the respondents for data collection. Respondents was supposed to study the questionnaire thoroughly and fill the questions accordingly.

3.12 Questionnaire Setup Scale

The study used Likert scale to design the questionnaire whereas 4-5 option used to maintain it.

3.13 Data Management and Analysis

3.13.1 Data Management

The raw data were processed and data entry has been done in the IBM software Statistical Package for Social Sciences (SPSS) version 20. For consistency check of the data, the data entry has been done in the evening time of the same day after completing data collection of that day.

3.13.2 Data Analysis

Correlation test was applied to analyze the association between the categorical variables and t-test for the continuous variables.

3.13.3 Descriptive Summary Statistics

Mean, standard deviation, frequency, and percentage was applied for the study.

3.13.4 Validity and reliability

Experts' opinion has incorporated in every aspect of the study. Questionnaires were prepared by taking the reference of various research papers and supervisors. It was different from the original study sample and necessary modification has been done where needed based on data.

4 Results and Discussion

4.1 Results

The result revealed the original task of the researcher. It was conducted with the help of self-administered questionnaire distributed to the selective respondent in different colleges. There had been 384 questionnaires distributed in offline and 60 Questionnaire distributed to the respondent by online. Among them, 260 got response from the offline questionnaire and 21 responses got from the online. The total responses were 281 only. The whole research analysis was done on 281 sample size.

4.2 Descriptive Analysis

Q1: Do you bring your mobile phone during college time?

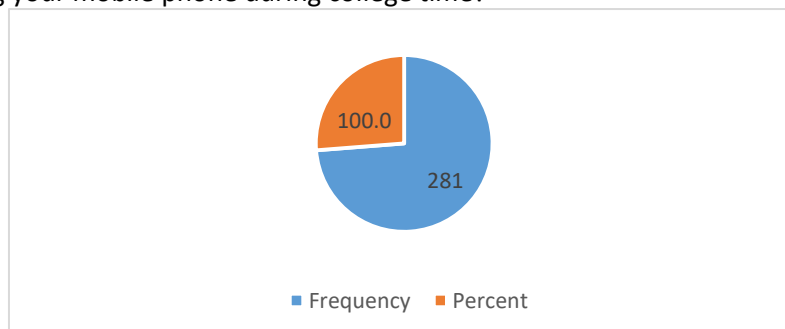


Figure 3: Mobile phone use during college time

Figure 3 concluded that 281 students (100%) used mobile phone during college time. The result explores 100% because it was mandatory question and base question of the whole research.

Q2: How often you used your mobile phone in college (in hours)?

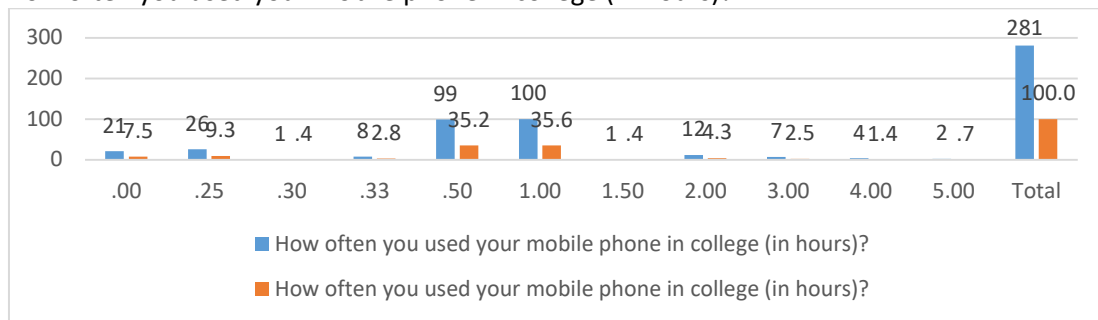


Figure 4: Frequency of mobile phone in college (in hours)

Figure 4 pointed out that 100 students (35.6%) used mobile phone for 1 hour whereas 99 respondents (35.2%) used for half an hour (i.e., 30 minutes) during college time.

Q3: How often do you use SMS service during class work?

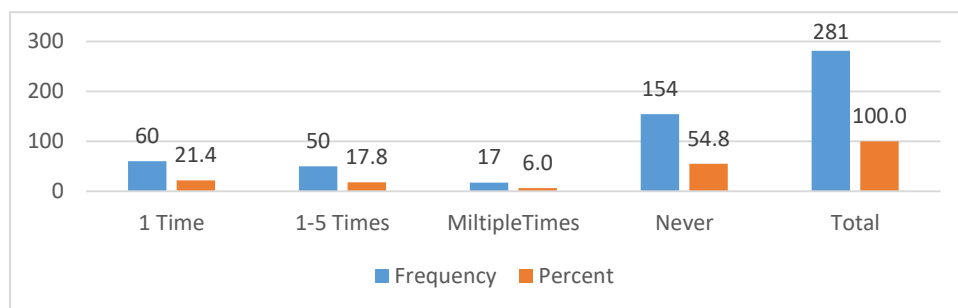


Figure 5: SMS service during class work

The figure 5 summarized that 154 respondents (54.8%) never used SMS during their class work, and 60 respondents (21.4%) used 1 Times used SMS service during their class work.

Q.4: Do you agree if the college will make the rules for keep mobile phone outside before entering the class room?

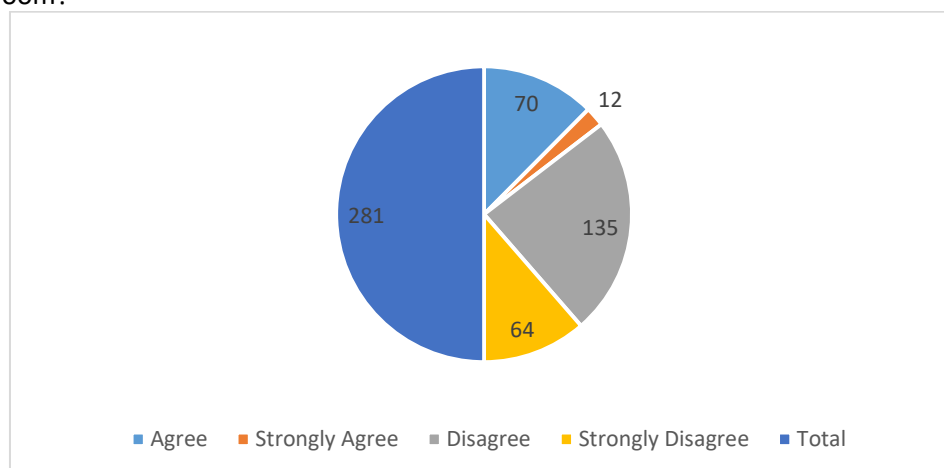


Figure 6: Rule for keeping mobile outside before entering the college

The figure 6 told that 135 respondents disagree, and 64 respondents strongly disagree regarding the rules for keep mobile phone outside before entering the class room.

Q.5: Do you think the mobile phone could assist you to complete your assignment?

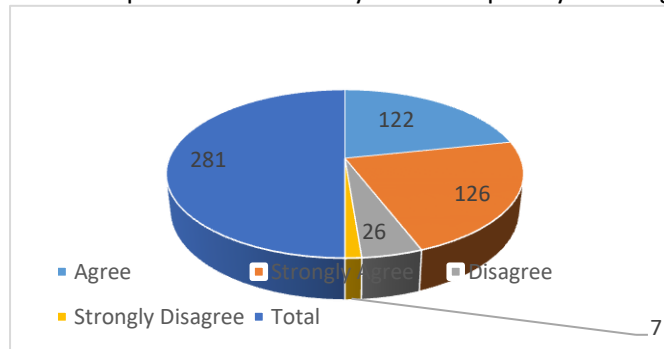


Figure 7 : Mobile phone could assist to complete assignment

The figure 7 showed that there were 126 respondents strongly agree as well as 122 respondents were agreeing with the mobile phone could assist to complete the assignment.

Q.6: How often does the use of mobile phone in class interfere your learning?

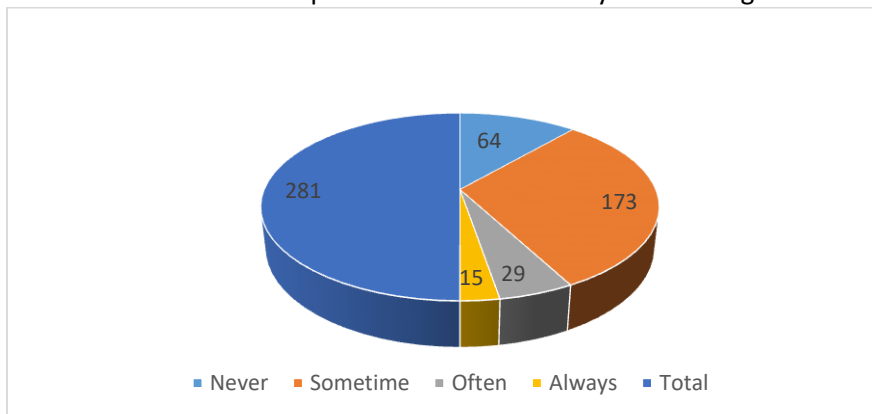


Figure 8: Mobile phone interfere learning of the students

The figure 6 focused that there were 173 respondents revealed that, cell phone use always class interfere the academic activities of the student. And 29 respondent revealed mobile phone used often interfere the learning of students.

Q.7: How often does the use of mobile phone in class assist your learning?

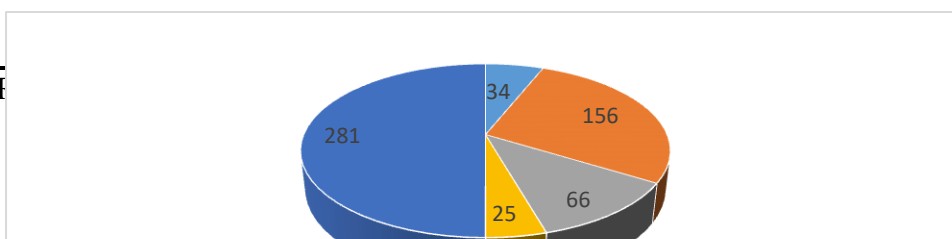


Figure 9: The use of mobile phone in class

The figure 9 stated that there were 156 respondents said that the smart phone use can sometimes assist the academic activities of students. As well as 66 respondents said that, the use of mobile phone can often assist to learning of the students.

Q.8: How often do the calls/messages received just before class impact on your ability to concentrate?

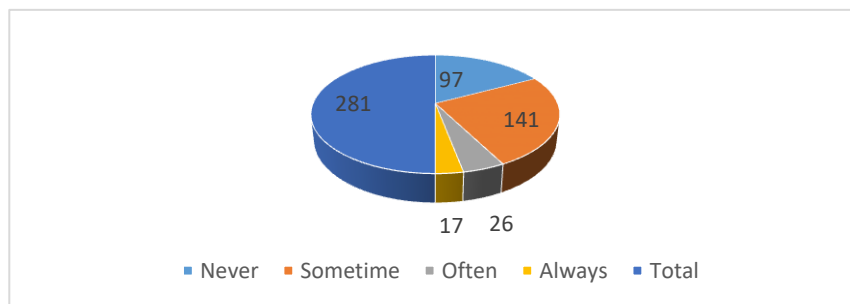


Figure 10: Calls/Messages impact on concentration of students

The figure 10 observed that there were 141 respondents revealed the mobile phone calls/messages always impact to the concentration of the students before class startup. As well as 97 respondents were revealed the mobile phone calls/messages never impact to the concentration of the student before startup the class.

Q.9: Can you easily contact to the teachers for study purpose with the help of mobile phone?

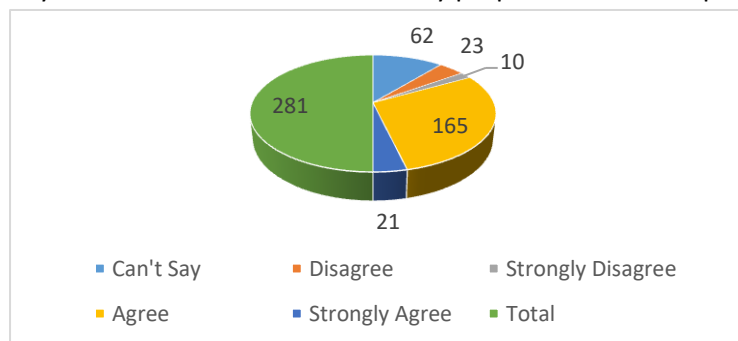


Figure 11: Communication between teacher and students

The figure 11 was cleared that there were 165 respondents revealed agree about the mobile phone can make easy to student and teacher both to contact each other for study purpose. As well as 62

respondents said strongly agree about the mobile phone can make easy to student and teacher both to contact each other for study purpose.

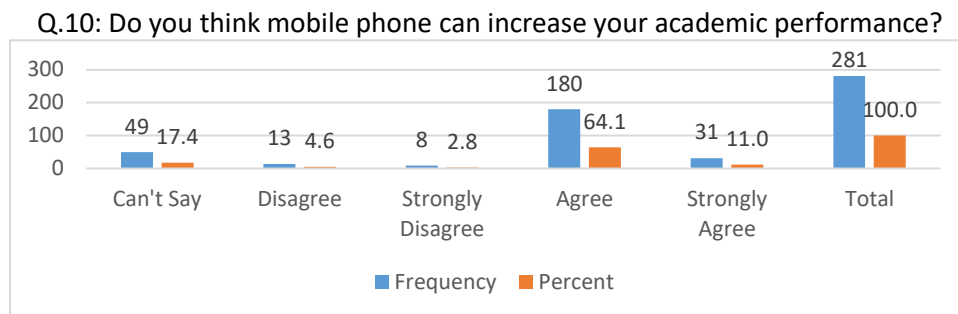


Figure 12: Mobile phone can increase academic performance

The figure 12 pointed out that there were 180 respondents (64.1%) agree about the mobile phone can increased the academic performance of the students. But 49 (17.4%) respondents were revealed can't say, it means these respondents were considered as neutral.

Q.11: Do you think mobile phone can use for academic purpose during class room?

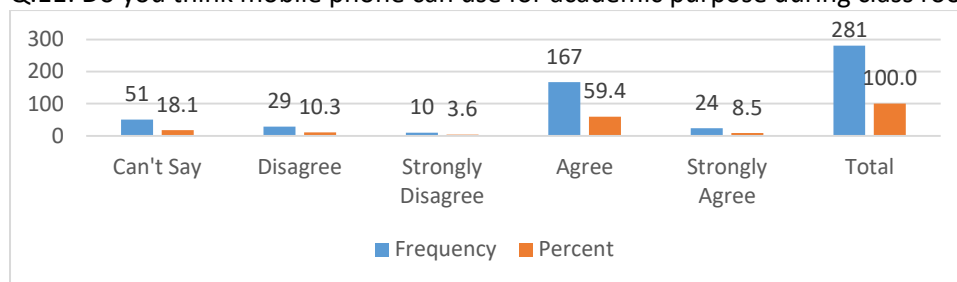


Figure 13: Mobile phone can use for academic purpose

The figure 13 showed that there were 167 respondents (59.4%) revealed agree about the mobile phone can use for the academic purpose during class room. As well as 24 respondents (8.5%) revealed strongly agree about the mobile phone can use for the academic purpose during class room.

4.3 Limitation

The present research study had some limitations such as limited time frame, academic performance not dependent only on GPA, selection of only undergraduate students, only few colleges ok Kathmandu valley, and sample size of the respondents being low.

Discussion

The result of the present study points out 281 (100%) students used mobile phone during college time. The result came 100% significance because it was the base question in questionnaire to conduct the whole research study. Moreover, all the remaining questions constructed based on the question No.1.

The result of the current study focused that 35.6% used mobile phone for 1 hours and 35.2% used mobile phone for half an hour during college time by various college students. Whereas according to Rosen et al. previous literature study showed that, the 38.4% cellphone used by students for a day (Rosen, et al., 2013).

The current research study showed that 54.8% never used SMS during the class time as well as 21.4% found that they used SMS service for one time during the class time. Whereas previous research study showed that there were 30.7% disagree on mobile phone SMS services affect to the

students learning during class work. The 30.3% respondents were agreeing on the SMS services of the mobile phone affect to the students learning during the class work (Ssain, 2019).

The main purpose of the current study was to find out the view of respondents on keep mobile phone outside before entering the class room rule in college. Moreover, the current result found that 135 respondents disagree, and 64 respondents strongly disagree about the rules for keep mobile phone outside before entering the class room. According to Bull & McCormick; Tao & Yeh the previous research study showed that, the cell phone was primary device for students in college to surf internet for the academic purpose. As well as the study showed that the student used mobile phone in college to share the academic files and folders with lecturer and friends to explorer the knowledge (Bull & Carlos, 2012) .

The current research found that there were 126 various college students revealed their answered as Strongly Agree and 122 students also were revealed the answered as Agree on the mobile phone can assist to the student for complete the assignment.

The current research study explored that there were 173 respondents said that the mobile phone used always interfere to the class when students were learning. Same as 29 respondents revealed the mobile phone used often interfere to the class during the learning time of students. The previous research study showed that, the well-equipped smart class room are becoming challenges for the lecturer and teachers in college. According to Lenhart most of the classes were disturbed by the mobile phone because some time the students were using mobile phone during the lecturer time. The students checked Facebook messages, tweet, and played game during the class running (Badri, et al., 2017).

The present research study told that there were 156 various college students revealed their view on mobile phone use can sometimes assist to the student during learning time in college. Moreover, there were 66 students said that the mobile phone use can often assist to the students during the learning time of the students in college. The answered of the respondent showed the significance; the use of mobile phone can assist to the student for academic purpose. The previous research study showed that the mobile can made class more interactive. According to Tossel Kortum, Shepard, Rahmati, & Zhong the mobile phone can help to the student to search about the classwork with the help of mobile phone and the mobile phone can assist to the student for complete their assignment in the class room (Tossell , et al., 2015) .

The present research study summarized that there were 141 respondents said that the mobile phone call/message always influence to the attention of the students before class startup. Moreover, 97 respondents were answered adverse answered on mobile phone calls/message never impact to the concentration of the students before class start in college. Whereas previous research study showed that, there were big number of students revealed; the mobile phone use in class room always distract to the students during the class startup. The reason behind the some similarities of the present research study and previous research study was; these two study had chosen same types of study variables and same domain to conduct the research (Ugur & KOC, 2015).

The present research study showed that there were 165 students revealed their answer as Agree on mobile phone can make easy for student and teacher to contact each other for academic purpose. Moreover, 62 college students had said that Strongly Agree on the mobile phone can make easy to students and teachers both to communicate for academic purpose. The aggregates result of the present research study showed the significance on mobile phone calls between teacher and students. The mobile phone technology being essential for communication and being basic need today's world. Whereas the previous research study showed that there were 100% university students had their own mobile phone during the college for keep in touch with teachers, lecturer for keep in touch. The previous study also showed that the students used mobile phone for academic learning purpose in the university. Somehow these two studies were similar because of the study domain and demographic population was same. The present study was done on undergraduate college students and the previous study was done on university students (Ugur & Koc, 2015).

The present research study compared there were 64.1% respondents Agree on the mobile phone can increase the academic performance of the college students. But 17.4% respondents had been revealed their answer as neutral (Can't say) on the mobile phone can increase the student's academic performance. The previous research study showed that there were according to Dmitri Rozgonjuk et al, the problematic use or excessive use of mobile phone never increase the academic performance of the college students. The previous study also showed that there were most of the students' academic performance was poor because of excessive use of mobile phone. The previous research study was not similar with present research study because the present research study sample was lesser than the previous research study (Rozgonjuk, et al., 2018).

The present research study concluded that there were 59.4% respondents (college students) revealed Agreed on the mobile phone can use for the academic activities during the class conducted in college. Furthermore, 8.5% said Strongly Agree on the mobile phone can use for the academic activities within the class. Whereas previous research study showed that there was negative correlation between mobile phone use and academic activities. It means the previous study found that the mobile phone does not used for academic activities during the class. This was the inverse relationship between present research study and previous research study (DARGHAN FELISONI & GODOI, 2017).

The present research study showed that there had been 38.8% respondents revealed Disagree on the mobile phone is waste of time for college students. Moreover, there were 21.7% said that Strongly Disagree on the mobile phone is a waste of time for college students. Where are the previous research study showed that there were used some hypothesis regarding the mobile phone used and its effects on academic performance. The previous study found that there were negative and positive both impact of the mobile phone used by the college students. It means the study showed that the mobile phone used was neither good & bad for the academic performance of college students (Priya & Jeevitha, 2017).

The present research study preferred that there had been 36.3% respondents revealed their answer as Disagree on the mobile phone is responsible for low academic performance of the college students. Moreover, 16.7% respondents were revealed their answer as Strongly Disagree on the mobile phone is responsible for low academic performance of the various college students in Kathmandu valley Nepal.

The present research study was cleared there were 47.7% respondents said that Agree on the question the mobile phone on mode can disturb the class in college hours. Furthermore, 13.2% respondents were also revealed their answer as Strongly Agree on the question mobile phone on mode can disturb the class during the college hours.

The present research study showed that there were 34.2% respondents had been answered they never pick up the mobile phone during their class running in the college. Moreover, 32.4% respondents were giving their answer differently as they rarely pick up the mobile phone during their class running in the college.

The present research study compared there were 37.7% rarely operate their mobile phone during their class in the college. Moreover, the 33.1% respondents were operating their mobile some time during their class in the college.

The present study told that there were 40.6 % respondents used their mobile phone for academic purpose inside the college per day. Furthermore, 28.1% respondents were used mobile phone often for their academic purpose inside the college in a day.

The preset research study observed that the 53.0% respondents agree on aggressively use of mobile phone could decrease the receptive capacity of the various college. Moreover, 23.5% respondents said that disagree on aggressively use of mobile phone can decrease the receptive power of the college students.

The present research study showed there were 41.6% disagree on failing rate of the students in examination due to mobile phone. Moreover, 37.0% were respondents agree on failing rate of the college students in examination due to mobile phone use aggressively in college time.

The present research explored that the 51.6% respondents were agree on the mobile phone can disturb the sleeping habit of the college students. Furthermore, there were 23.8% respondents had answer as strongly agree on the mobile phone can disturb to sleeping habits of the college students. The previous research study showed that there were maximum number of respondents revealed their answer about the mobile phone used obviously disturb to the sleeping habit of medical college students (Gupta, et al., 2015).

The present research study stated that there were 45.6% respondents agree on the mobile phone can create learning environment in class room during the college time of the students. Moreover the 38.8% respondents had revealed their answer differently as the mobile phone cannot create learning environment in class during the college time of the college students. Whereas the previous research study showed that there were 76% students used mobile phone for internet to create the learning environment during the college time. Moreover, the study showed that they used internet enabled mobile phone for search study material during college time (Kahari , 2013).

The present research study found that there were 46.3% respondents disagree on students always engaged with social media using by the mobile phone during class time. Moreover, 27.0% respondents were agreeing on students always engaged with social media with the help of mobile phone during the class time.

The present research pointed out that there were 49.8% respondents answered that they were mobile phone use friendly since more than 4 years. Moreover, 24.2% revealed their answer they were mobile phone friendly for 3 years.

The present study showed that there were 62.3% revealed agree on mobile phone can increase the academic performance of the various college undergraduate students. Moreover, 17.4% respondents disagree on mobile phone can increase the academic performance of the various college undergraduate students.

The present research study compared that there were 53.0% respondents agree on the mobile phone can affect the GPA of the various undergraduate college students. Moreover the 29.5% disagree on mobile phone can affect the GPA of the undergraduate college students. The previous research study showed that there were maximum number of respondents said that the overuse of mobile phone decreases the quality of student's academic performance. Furthermore, excessive use of mobile distracts to the student's attention from the learning activities. The reason behind some similarities between present research study and previous research study was; these two-study had same domain for the research (Rai, et al., 2016).

The present study revealed that there were 91 respondents used mobile phone for E-Learning in college. Moreover the 90 respondents used mobile phone in college for research work.

The main purpose of the present research study was to find out the academic performance of the undergraduate students in Kathmandu valley on the basis of their Grade Point Average (GPA). The 97 respondents were said that, they had been got 3.01-3.50 GPA in first semester. Moreover 81 respondents (28.8%) had been got 3.51 and 68 respondents (24.2%) had been got 2.51-3.00 GPA in first semester.

The present study compared that there were 39.1 % respondents had been got 3.01-3.50 GPA in current semester. It means previous semester. Moreover, 32.7% respondents had been got 3.51 GPA in current semester. This is also one of the effective methods to find out the academic performance of the undergraduate students in Kathmandu Velley Nepal.

The present study told that there were 156 respondents agree on mobile phone's calculator could use during the class hour of the college students for calculating some require mathematical computation easily. Moreover, 52 respondents disagree on mobile phone's calculator use during the class hour of the college students.

The main purpose of the present study was to find out the mobile app frequently used by the college student for academic purpose. The present study showed that there were 167 respondents had been used Facebook Messenger mobile apps frequently for the academic purpose. Moreover, there were 66 respondents had been used Viber mobile app for information sharing with friends.

The present study table 4.1 showed that there were 33.8% respondents were aged 20 years, and 24.9% were 21 years old college students. This was age group analysis by SPSS version 20.

The present research study table 4.2 showed that 176 respondents were Female and 105 were Male among the 281-total no of sample size. This was the demographic analysis of the present research study.

The present research study found that there were 66 respondents from the BBA sixth Semester (i.e. 23.3%), followed by 51 respondents from the BPH 4th Semester (i.e.18.1%)

The present research study compared that the 150 respondents were from the Nobel College, which was followed by 66 students from Public Youth Campus (PYC).

The present research study table 5 showed that there were mean GPA in first semester and Age mild positive correlation which was significant (p value=0.014) statistically. Moreover, the study found that there was also mild positive correlation between age and the mean GPA in current semester ($r=0.375$) which was statistically significant (p value=0.000) which is less the (p value=0.5). The current research study also found that the mean GPA of current semester (2.9784) was significantly lower than the GPA of first semester (3.1761).

The present research study table 4.6 found that there was no association between GPA in first semester and gender of the students (p value=0.380). Moreover, the mean GPA of current semester was also statistically not association with gender of the respondents (p value=0.823) from various colleges.

The present research study told that the mobile uses pattern of the undergraduate college students in Kathmandu valley Nepal. The table no 4.7 showed that there were 100 students who spent 1 hour in mobile phone daily, which was followed by 99 students who spent 0.5 hours in mobile phone daily.

The present study table 4.8 compared that there was some significant difference between the mean GPA in first semester students and mean GPA in current semester of the students (p value=0.002) which is less than (p value=0.5). The mean GPA in previous (this) semester (3.2412) was higher than the mean GPA in first semester (3.1940) of the undergraduate students in Kathmandu valley Nepal.

5 CONCLUSION & RECOMMENDATION

5.1 CONCLUSIO

In conclusion, there were used various tools and technic to conduct the whole research study. The research study was survey based. The total sample size was chosen 281 and got whole responses from the respondents during the research study. The self-administered questionnaire was distributed to 281 undergraduate college students in various different colleges in Kathmandu valley Nepal. Whereas 23 responses were online and remaining 258 responses were offline.

Research Question 1: How do we assess demographic variables and their roles in academic performance of undergraduate students?

Finding: The result concluded of research question 1 and objective 1 of the present research studies there were 95 students which was 33.8% aged 20 years followed by 70 students which was 24.9% aged 21 years. Moreover, the present research study revealed that there were 176 respondents (62.6%) female students and 105 (37.4%) male students. The present research study compared that there were 150 students (53.4%) from Nobel College, and 66 students which was 23.5% from Public Youth Campus (PYC). The present research study found that there were 23.3% respondents from BBA sixth semester, followed by 18.1% respondents from BBH 4th semester.

During the present research study there were various statistical test used. Whereas the age of the undergraduate students was mild positively correlated with the mean GPA in first and current semester ($r= 0.146$ and 0.375 respectively) and these relations were statistically significant (p values=0.014 and 0.000 respectively). The mean GPA in current semester (2.9784) was significantly lower than that of the first semester (3.1761). It means there was correlation test used to calculate

the association between mobile phone and GPA of the undergraduate students in various colleges in Kathmandu Valley Nepal.

This might be due to continuous learning process of the students with the increment of the age of the students.

The study showed that there was significant difference between the mean GPA in first semester and current semester (p value=0.002). The mean GPA in current semester (3.2412) was higher than the mean GPA in first Semester (3.1940). This showed that there was positive impact of mobile phone use by the undergraduate's level students.

Research Question 2: How can we assess usage patterns of undergraduate students' mobile uses?

Finding: The present research study explored there were 100 students which was 36.6% who spent 1 hour in mobile phone per day, whereas 99 students which was 35.2% who spent 0.5 hours in mobile per day.

Research Question 3: How can we compare the academic performance (on the basis of academic grade) of the undergraduate mobile user students on the basis of academic grade before and after use of mobile phones?

Finding: The present research study compared that there was significant difference between the GPA of first semester students and mean GPA of current semester students where (p value=0.002). Moreover, the mean GPA of current semester student's (3.2412) was higher than the mean GPA of first semester students (3.1940).

The GPA in current semester was statistically significantly related among various academic programs (p value=0.000). The mean GPA of the BSc CSIT 4th semester students (3.4421) was significantly higher than that of students from other academic programs. This might be due to the awareness about the importance of information technology among the BSC.CSIT students.

5.2 Recommendation

- Undergraduate level students should have used mobile phones for academic purpose.
- There should have been clear policy about mobile phone use by the students within college premises.
- The college should have developed mobile apps for virtual distance learning classes.
- The learning activities by the mobile phone-based information technology should have been regulated properly.

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