

# Enhancing Learning Outcomes of College Students through Smartphone Integration in the Classroom

*Mr. Sandesh Rohit Gurung*

*Lecturer, Barun Multiple Campus, Khandbari, TU  
sandeshello@gmail.com*

## **Abstract**

The study has been done only based on management faculty students of Barun Multiple Campus in Sankhuwasabha. The limited students have been selected as respondents for this study. The reason is that the area was selected for study because it is accessible for research, and this kind of research has not been done yet in this area. In this paper, one of the smart pillars of using smartphones as learning in college classrooms can benefit students in various ways, such as accessing information, engaging in interactive learning, collaborating on studies, utilizing multimedia resources, learning language, and productivity tools. The study was carried out through a survey and interview with a group of students. The research paper will address the reflections of students with smartphones. And especially, this paper will explore the enhanced learning outcomes of college students through smartphone integration in the classroom to know how the students relate to and enhances their learning.

***Keywords:** enhance, learning, Smartphone, college, student, education, classroom*

## **Introduction**

In recent years, smartphones have become universal among college students, transforming how they access information, communicate, and engage with content (Anuyahong, 2022). The integration of smartphones in educational settings has become increasingly prevalent (Sofany & Hagggar, 2020) driven by the widespread adoption of mobile technology among college students (Alfawareh & Jusoh, 2014). By leveraging smartphone as educational tools and integrating them thoughtfully into the learning environment, educators can effectively enhance student's experience and outcomes (Anshari, Almunawar & Shahrill, 2017).

Research and studies have described smartphones as multitasking technology (Fawareh & Jusoh, 2017). However, the study does not cover the extent of smartphone uses in classroom. In this situation, this study assesses the opportunities for students to enhance learning outcomes through smartphone integration in the classroom.

The research paper addresses the reflections of students with smartphones. And specially, this paper will explore the enhancing learning outcomes of college students through smartphone integration in the classroom to know how the students relates to and enhances their learning.

By exploring these aspects, the study could empower college students to make informed choices about incorporating smartphones in to their learning effectively, maximizing the benefits while minimizing potential drawbacks. Overall, the study could provide a comprehensive view of the benefits, challenges, and strategies related to smartphone use in classrooms, offering actionable insights for college management to make informed decisions.

### **Methodology**

The researcher selects Barun Multiple Campus of Sankhuwasabha district. And, other one reason is that the area is accessible for research and another is this kind of research has not been done yet in this area.

The design of research study is basically non experimental. It is based on field study method. The research has been carried out with descriptive research design, in order to fulfill the objectives, information has been collected from student survey, the field study, and interview and observation are the main techniques that have been utilized to obtain the information from students of the study. The teachers have been taken into consideration for interview. Primary as well as secondary data has been utilized. Analysis of data has been made from the average and percentage.

The article has taken single approach for data collection primarily only. These data were collected through the college and student survey, group discussion, and key informants interview in study areas. Secondary information were collected from the different sources such as books, journals, published and unpublished reports, articles etc. will sources of secondary information.

Samples were chosen by means of simple random sampling method to represent the entire respondents of study area of Barun Multiple Campus. Total no. of students in management stream were 151 but the researcher has selected only 60 (40%) students.

Interviews were taken with some key informants using semi-structured and unstructured questionnaire. For this study, students, teachers and head of department, other stake holders were the key respondents. The researcher asked question for them for collecting about the statistical progress which common respondents have no knowledge.

To find out the fact of result researcher himself observed the study area and collected the information which assume as the main components of learning in smart classroom.

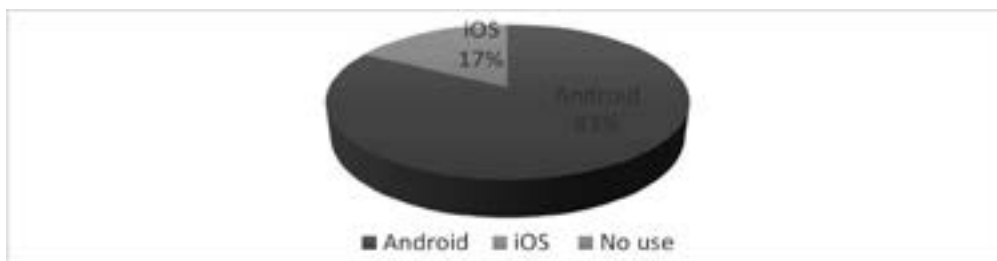
Presentation is process of organizing into the logical, sequential and meaningful categories and classification to make them agreeable to study and interpretation. There are using three ways of presenting data; Textual, Tabular & Graphical.

This study has been confined in the following limitations which are as; The study has been based on only management faculties of Barun Multiple Campus, Sankhuwasabha. Limited respondents have been selected as respondents for this study. Data used in this study were not verified from any authority.

### Results/ Findings

**Figure 1**

*Presentation and Analysis of the respondents on the basis of using smartphone*



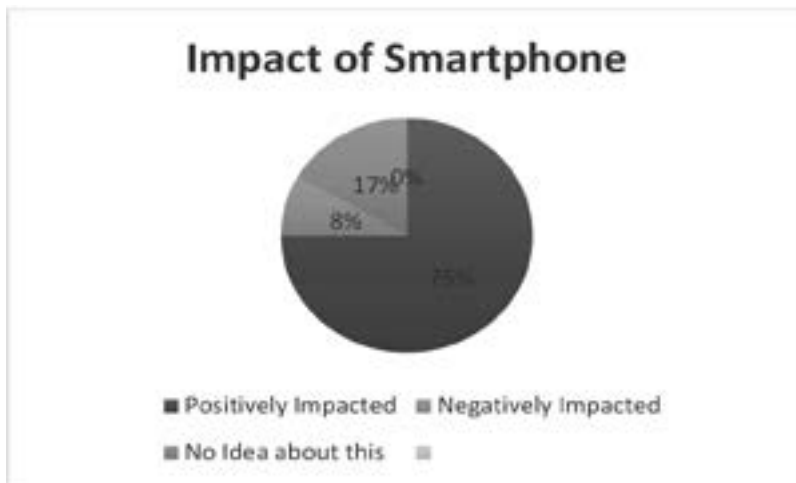
The findings of the survey results indicate that 83% of students use Android smartphone, 17% use iOS operating system smartphones and thus 100% of students carry smartphone in college classrooms. Generally students use their smartphones for calculating in numeric subjects and sharing the problems and solutions among the classmates. Accordingly, it is easy to take pictures of assignments and recording clips for future reference. They also use smartphones for sharing ideas, clues, and notes throughout apps of smartphones.

And, this study shows majority students on favor of mobile phone allowed in classroom without any restrictions minority students are on favor of with certain restriction and no one students are favor of on completely banned in college classroom at the time of lecture. This study shows that the majority of students are in favor of mobile phones being allowed in the classroom without any restrictions. Minority students are in favor of certain restrictions, and no students are in favor of a complete ban in college classrooms during lectures. The smartphone is one of the most widely used devices and is very essential for day-to-day work. Students also feel affirmative about

learning with smartphones and their apps. Students find it easy to complete tasks, enjoy their work, and comfortably enhance their learning capacity.

**Figure 2**

*Impacts of smartphone use in classroom.*



The above figure declares the impact of smart phones on students, with 75% being positively impacted, 8% negatively impacted, and 17% respondent having no idea. The result indicates a higher probability of enhancing for learning outcomes of students through smartphone integration in college classroom.

**Table 1**

*Responses on the effect of the smartphone on students enhancing learning activities.*

S.N.	Particular	Agree	Disagree	Neutral
1	Smartphone to access electronic learning materials	78 %	11%	11%
2	Smartphones have made learning more flexible and easy	91%	3%	6%
3	Smartphone optimizes the use of learning Skills	82%	5%	13%
4	Learning easier for lessons anytime, anywhere	74%	9%	17%
5	Learning is exciting and attractive	76%	10%	14%
6	Very appropriate to use in the future	52%	22%	26%

It is evident from table no. 1 that, 78% of the respondents find it smartphone easy to access electronic learning materials, 11% each disagree and remain neutral. Smartphones have made learning more flexible and easy, with 91% respondents agreeing, 6% remaining neutral, and 3% disagreeing. 82% respondent optimizes the smartphone use of learning skills, while others are neutral and disagree on this aspect. The majority of respondent 74% agreed, with 17% being neutral and 9% disagreeing. Learning through smartphone is found to be very easy and attractive, with 76% in agreement and others remaining neutral or disagreeing. Anytime, anywhere, learning is exciting and attractive and considered very appropriate for future use, with 52% agreed, 26% neutral and 22% disagreeing for this session. According to this survey, the charm of using smartphone in the classroom is very good and agreed upon for innovative enhancement in learning.

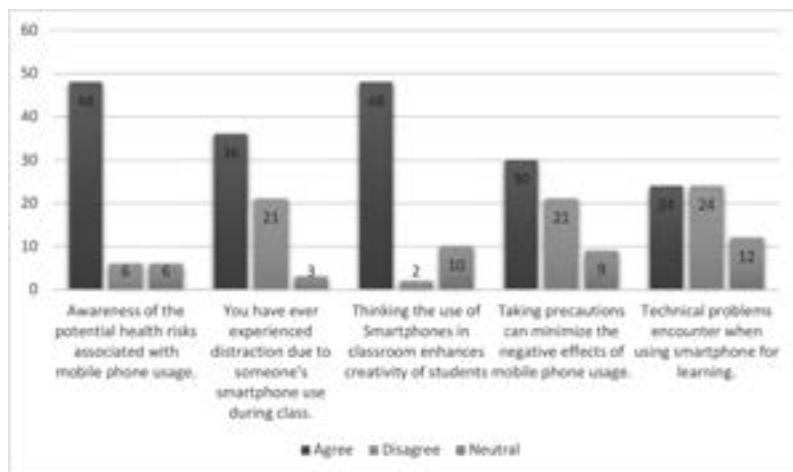
**Table No. 2**

*Students responses for awareness and taking precaution of smartphone use.*

S.N.	Particular	Agree	Disagree	Neutral
1	Awareness of the potential health risks associated with mobile phone usage.	48(80%)	6(10%)	6(10%)
2	You have ever experienced distraction due to someone's smartphone use during class.	36(60%)	21(35%)	3(5%)
3	Thinking the use of Smartphones in classroom enhances creativity of students	48(80%)	2(3%)	10(17%)
4	Taking precautions can minimize the negative effects of mobile phone usage.	30 (50%)	21(35%)	9(15%)
5	Technical problems encounter when using smartphone for learning.	24 (40%)	24(40%)	12(20%)

**Figure No. 3**

*Students responses for awareness and taking precaution of smartphone use*



It can be observed from table no. 2 and figure 3 that, out of the total respondents; awareness of the potential health risks associated with mobile phones is agreed upon 80%, with 10% disagreeing and 10% remaining neutral. 60% respondent agreed with the question of you have ever experienced distraction due to someone's smartphone use during class, while 35% disagreed and 5% had no idea. When asked if the use of Smartphones in educational situations enhances creativity agreed by 80%, agreed and 10% were neutral, and 3% disagreed. Regarding tracking precautions to minimize the negative effects of mobile phone usage, 50% of respondents agreed, and 35% disagreed then 15% were neutral. 40% respondent encountered the technical problems when using smartphone for learning, with 40% disagreeing then 20% remaining neutral. This table also reflects the majority of respondent in favor of being aware of and precautions regarding smartphone usage.

The use of smartphone for learning is depending on how they are utilized for the purpose of learning, with potential positive and negative effects. In light of this background respondents were asked to indicate the effect of smartphones on their learning activities, as shown in figures.

### **Discussion**

Reflections of students with smartphones and enhancing learning outcomes of college students through smartphone integration in the classroom;

The research study shows some important results towards the integration of mobile technology into teaching (Norries, 2011). These include students' positive

perception, facilitation of students' flexible access to mobile devices for learning materials, and an increase in students' skills in using mobile technology to enhance learning (Ismail, Bokhare, Azizan & Azman,2013).

This research article shows that survey participants enjoy using WhatsApps and Messenger to contact with their friends for academic purposes. This indicates that smartphone screens could potentially replace traditional paper books and notebooks.

Using smartphones as learning devices in college classrooms can benefit students in various ways, such as accessing information, engaging in interactive learning, collaborating on studies, utilizing multimedia resources, learning language, and productivity tools.

Overall, smartphones can significantly aid student in their academic journey by providing access to resource, promoting organization and productivity, facilitating collaboration, offering interactive learning opportunities, and supporting accessibility.

### **Implications**

The increased usage of smartphones could lead to more problems on students' educational journey. This includes a rise in mobile gaming addictions, physical issues like eye problems, decreased social integration, and heightened anxiety due to the constant need to have their phones. Moreover, using phone in the classroom can be both distracting and annoying to other, indication a lack of attention.

This study has explored so many advantages in classroom education of college to create learning situation as well as making teaching movements. Students could be able to simply use their smartphone and open apps to study their notes for classes. Further added benefits to increased smartphone use for educational purposes are not wasting paper and the ability to keep information for educational purposes are not wasting paper and the ability to keep information for a longer period and access it at an time and anywhere. The researcher's personal observation and involvement with the students has determined that the majority of college students use their apps for academic purposes.

### **Conclusion**

Smartphones have made learning more flexible and easier, and have helped to reduce the inherent limitations of conventional classroom learning. For instance, a smartphone makes it possible for a student to access educational materials at anytime, anywhere, and it is highly cost-effective since this opportunity is just a

function of a smartphone. Students might also take photographs, record lectures, and download electronic books to enhance learning.

With the emerging technological innovations, we could see that how smartphone devices can be converted to a simple learning gadget. Many students believe that smartphones facilitate their learning process through quick access to Online dictionaries, university library pages, universal search engines, and personal emails. And, the researcher suggests that college students should continue using their smartphone to study it helps them to get better grades because getting better grades would cause students to have a more positive outlook on life and ultimately continue to achieve their academic goals.

However, it's crucial to establish guidelines and boundaries to ensure that smartphone use in the classroom remains focused on learning and does not become a distraction. Teachers can set clear expectations and provide guidance on using smartphones responsibility for educational purpose.

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