The Usefulness of Smartphones on Learning Different Subjects for Bachelor's Degree Students at Diktel Multiple Campus

Submitted to

Research Management Cell (RMC)

Diktel Multiple Campus, Khotang

Krishna Bahadur Rai

Associate Professor

Faculty of Education

Diktel Multiple Campus

2023

Abstract

The current era is considered by the prominence of Information and Communication Technology (ICT). ICT is a multidisciplinary term that incorporates a variety of technical tools and services employed for the operation of networked control devices, telecommunications, intelligent management systems, as well as the transmission, reception, and processing of information through electronic devices.Smartphones represent a vital component of information and communication technology (ICT), serving a variety of functions.In modern education, smartphones serve as essential tools for both teaching and learning.

More specifically, this study explores the possession of smartphones among students, their potential use in various subjects, other possible areas in which students use smartphones, and the challenges associated with smartphone usage. The study is based on the cross-sectional survey method. Data were collected from 105 bachelor-level students across the education, management, and humanities and social sciences faculties at Diktel Multiple Campus, using closed-ended questionnaires. Moreover, these data were analyzed, presented, and described using statistical tools. The study shows that 98 percent of students possess smartphones, and all respondents (100%) accept that smartphones help in learning subject matters. Furthermore, smartphones are deemed highly beneficial for acquiring knowledge in diverse fields. However, excessive smartphone use can negatively impact students' academic performance. Therefore, it is essential to provide students with appropriate guidance on the effective and purposeful use of smartphones.This study is expected to contribute to the application of smartphones as learning devices and resources for bachelor-level students.

Acknowledgement

I wish to express my heartfelt appreciation to both the teaching and non-teaching staff of Diktel Multiple Campus for their unwavering support, motivation, and invaluable insights throughout the course of this research. Their suggestions, guidance, and collaborative spirit have been instrumental in the successful completion of this study

I would like to express my sincere gratitude to all the bachelor-level students at Diktel Multiple Campus for their valuable contributions and collaborative efforts.

Thank you

Table fo Contents

Chapter One
Introduction

This chapter presents the research agenda and highlights the importance of smartphones for learning. It also stresses the need to explore this subject and outlines the objectives of the study. Furthermore, the chapter introduces the research questions that direct the research into the successful integration of smartphones in educational environments. The structure of the study is also delineated within this chapter. Finally, it offers definitions of essential terms used throughout the research.

Background

This era is considered by the prominence of Information and Communication Technology (ICT). The development of smartphones, mobile application programmes, and social media platforms has made the functioning of ICT more effortless. Moreover, the use of smartphones comprises a wide range of application programmes and social media platforms. Consequently, in the field of learning, the smartphone acts as a versatile device and an innovative tool. It holds considerable importance in many areas of contemporary life. It enables the transformation and reception of information, fosters relations with family and friends, provides entertainment, and supports the creation and learning of knowledge. Furthermore, they are useful resources for teaching and learning in both formal and informal educational systems. Moreover, Ghimire (2023) supported this idea and stated that "the young generation use mobile for entertainment, as supportive tools for their education, and to enhance their knowledge and abilities". In modern society, smartphones have become important tools in individuals' lives, serving a several of functions.

Smartphones have developed as transformative instruments for education at all levels, including primary, secondary, and higher education in contemporary society. These phones assist as valuable possessions for both teachers and learners. The effective use of mobile technology can greatly enhance the knowledge achievement process for both teachers and students. In Nepal, particularly during the COVID-19 pandemic, smartphones have played an essential role in supporting educational activities. These phones were employed to conduct online classes. Since that period, the universities in Nepal and the University Grants Commission have

recognized the importance of mobile technology and online classes, leading to a concerted effort towards digitalization and the implementation of online classes. Moreover, Artal-sevil et al. (2015) also realized the importance of mobile and they stated that "Mobile devices have revolutionized the campus because of its low cost and technical capabilities, which together with a wide spread of Internet services has caused a change in the behaviour of students". This technology plays a vital role in modern higher education, particularly within campus level education. It can be more affordable and has a diverse range of applications. Moreover, it serves as an excellent instrument to change students' learning habits. Artal-sevil et al. (2015) further asserted that the integration of mobile technology within higher educational contexts has the potential to change conventional methods of teaching and learning. They noted that this shift leads to a new understanding of higher education, marked by a changing structure of teaching and learning that emphasizes student mobility, often referred to as "m-learning".

Similarly, Onyema (2019) states, "The mobile can be used in higher education to inspire students' learning interest and support the achievement if set teaching learning objectives". Almost all students at higher levels possess smartphones which make it easier for teachers to integrate it in pedagogy. The use of smartphones in classroom allows students to be more actively involved in their learning activity and to communicate and engage effectively with the teacher, both inside and outside the classroom.

Statement of the Problem

This study aims to study the usefulness of smartphones for the students of bachelor level to learn their subject matters and other additional information about different sectors. Diktel Multiple campus is situated at the headquarters of Khotang district as a community campus, even though most of the students of this campus are not regular in physical class due to their family problems, and economic problems and some of them are in jobs far away from campus locations. Moreover, some students are in jobs outside of the district. Therefore, they are not regular on campus. They need online classes and extra resources to complete the study. In this sense, the smartphone is a suitable tool for them to continue their study, and it can help them with their self-learning.

Objectives of the Study

The main objectives of the study were as follows:

1. to find the possession of smartphones by the students
2. to identifythe potential use of smartphone on learning different subjects of bachelor level
3. to find the other possible areas in which students use smartphones in their daily activities
4. to find the challenges around the use of smartphones

Research Questions

This study was oriented to find out the answers to the following research questions:

1. Do all students of the bachelor level of Diktel Multiple Campus possess smartphones?
2. What are the possible uses of smartphones for facilitating the learning of subject matter among bachelor's degree students?
3. What are the other possible areas in which students use smartphones in their daily activities?
4. What difficulties do students encounter when using smartphones for their academic activities?
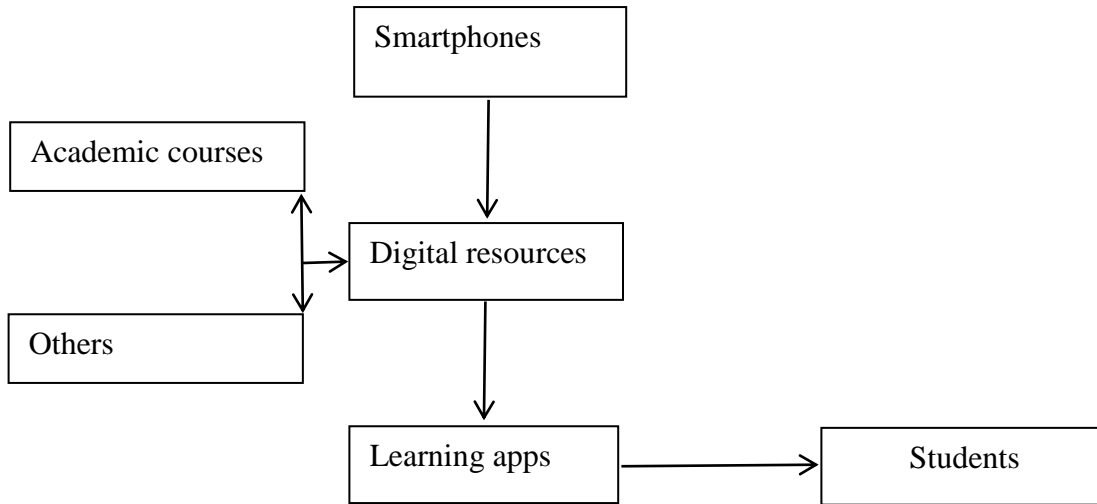
Delimitation of the Study

This research was delimited to study the usefulness of smartphones in facilitating the learning of subjects among bachelor's degree students.The quantitative research methodology was adopted, using a cross-sectional survey method to collect primary data about the impact of smartphones from the different classes at Diktel Multiple campus. Data was gathered through a closed-ended questionnaire.

Conceptual Framework

"The Usefulness of Smartphones on Learning Different Subjects for Bachelor's Degree Students at Diktel Multiple Campus" is the topic of this research study. Smartphones are innovative and versatile devices for learning academic courses as well as extra knowledge for students of the bachelor level on campuses. The majority of the students at the bachelor level possess smartphones. Consequently, the conceptual framework illustrated in Figure 1 served as a guide for this study.

Figure 1

Conceptual Framework on Learning Various Subjects for Bachelor level's Students

```
              ┌─────────────────┐
              │  Smartphones    │
              └────────┬────────┘
                       │
┌──────────────────┐   ▼
│ Academic courses │  ┌──────────────────┐
└──────────────────┘  │ Digital resources│
        ▲  ┌──────────►                  │
        │  │          └────────┬─────────┘
        ▼  │                   │
┌──────────────────┐          ▼
│ Others           │  ┌──────────────┐        ┌──────────────┐
└──────────────────┘  │ Learning apps│───────►│  Students    │
                      └──────────────┘        └──────────────┘
```

Chapter Two
Literature Review

This chapter aims to clarify the method and use of smartphones as an innovative tool for enhancing knowledge in multiple fields, referencing the results of different researchers. Furthermore, it provides insights into the specific aspects of subjects that can be effectively explored through smartphone technology. The chapter mainly presents both theoretical frameworks and empirical evidence to support this study.

Survey Method

Surveys are one of the most common research methods used to gather primary data in this field. This quantitative methodology aims to obtain information from a large number of participants, which helps describe the frequency of events and allows for the generalization of results from a small sample to a larger population, depending on the specific characteristics and goals of the study. Surveys are extensively employed to collect and analyze a variety of data types, including those from social, political, economic, psychological, technical, cultural, and educational sectors, among others.

There are several types of survey research, including longitudinal, cross-sectional and trend or prediction studies (Cohen et al. 2019). Moreover, a longitudinal survey tracks a specific group of participants over a period, collecting data at different intervals, whereas a cross-sectional survey collects data from a specific population at one particular moment in time. On other hand, a "trend or prediction survey" refers to a research instrument aimed at collecting data on individuals' expectations concerning future occurrences related to a specific subject. This kind of survey invites participants to predict upcoming trends by expressing their opinions and insights regarding potential developments or changes within a specific area.

The integration of smartphones within educational environments

In academic literature, certain researchers prefer the term mobile phones while others opt for smartphones, despite both terms describing similar devices. These devices are used when people are on the move. The term smartphone denotes more sophisticated versions of mobile phones. Nevertheless, in this context, both terms signify the same category of device.

Ghimire (2023) noted that the effective use of smartphones is a genuine concern for enhancing learning.Furthermore, he found that the integration of mobile devices in organized learning sessions significantly improved students' performance in mathematics. Additionally, he noted that students employ these devices for recreational purposes, and to enhance their knowledge and skills.However, his study is limited to the use of smartphones in mathematics education and specific restricted areas.

Zou&Jin (2022) found that the increasing prevalence and use of smartphones among college students have changed the teaching and learning arena, leading to a surge in research on integration of smartphones in education, especially language education.The discourse has highlighted the transformation in the utilization of smartphones within educational contexts. Nevertheless, the challenges associated with employing smartphones as learning instruments in the classroom have not been addressed.

Sorte et al. (2020) found that most students who participated in the research use smartphones to meet academic and entertainment aims. The rules and consequences in the classroom, however, diminish the use of the devices for being related to punishments. They have mentioned that smartphones are utilized for research and entertainment purposes. Smartphones have been acknowledged as tools utilized in both research activities and entertainment. However, there has been a neglect in recognizing the multifaceted applications of smartphone usage.

Wali and Omaid (2020) stated that the lecturers perceive the use of smartphone by the students in classrooms to be beneficial for students in their learning in various ways. Moreover, the findings indicated no major perceived barriers caused by smartphone use in classroom. Moreover, he stated that —Smartphone with its multifunctional features has gained significant importance as a must have gadget of study, work and everyday life.

Schiavi et al. (2019) state that many applications and functionalities of smartphones are used for personal, professional and academic purposes simultaneously. The finding contributes to the improvement of the classes, highlighting pathways for the fruitful integration of this technology in the classroom.They have discussed the usefulness of smartphones for the enhancement of the classroom. However, they have not discussed the particular use of smartphones for specific subject matter.

Sahlström et al. (2019) further identified that digital devices, including smartphones, serve as valuable tools for facilitating advancement.The primary outcome of employing screens in interconnected classrooms pertains to a significant enhancement in the individualization—more accurately termed personalization—of each student's engagement within the educational environment.

Mammadova (2018) found that smartphone functions like note-taking, photos of the whiteboard and/or smartboard, video recordings, and the WhatsApp application can become an integral part of the modern classroom. The study also suggests that smartphone technology should be widely applied by university teachers/instructors and, in the future, may lead to certain changes in teaching methodology generally.She has elaborated more clearly on the practical application of smartphones within the classroom.

Anshari et al. (2017) indicated that students utilize smartphones as educational tools for various reasons, including their convenience, portability, and ability to offer extensive learning experiences. Additionally, smartphones facilitate access to multiple sources of information and enable multitasking. Furthermore, students employ these devices to engage with teachers beyond the classroom setting and to organize their group assignments effectively.

Fouzdar and Behera (2017) asserted that mobile learning represents an innovative educational methodology that promotes flexibility, allowing individuals to engage in learning opportunities regardless of their age, gender, or geographical location.The authors stated that the smartphone represents a revolutionary tool that facilitates learning at any time and from any place, irrespective of race or gender.

Parajuli (2016) stated that "The majority of the students had positive attitudes towards mobile learning". He further stressed the importance of teachers and educational institutions guiding students on how to effectively use mobile technology, as the successful incorporation of technology in educational environments largely depends on appropriate teaching methods and the support offered by teachers.

Smartphones, as emphasized in the previously mentioned literary works, are viewed as revolutionary tools for education. Their compact size, adaptability, and appropriateness for different educational stages render them essential. These devices fulfill several roles, such as

enhancing learning, instructing, enabling communication, and providing entertainment. Furthermore, they embody modern educational resources designed for contemporary classrooms. Smartphones are instrumental in fostering collaborative learning, innovative teaching methods, and self-directed study.

These tools can be used in both classroom settings and outside of them, allowing students to participate in learning anytime and anywhere. By using these devices, individuals from various races, genders, educational backgrounds, and age groups can enhance their knowledge. However,it is essential for students to receive appropriate guidance to attain meaningful outcomes. The existing literature has only partially addressed these concepts. This study seeks to fill the gaps left by earlier research works.

Chapter Three
Methods and Procedures of the Study

This chapter presents and discusses the research methodology employed in this study. It also describesthe research design, research process, method of data collection, method of dataanalysis, and the application of the data analysis. Moreover, this chapter elucidates the objectives of the study, which were realized through an initial pilot study succeeded by the primary research, consisting of four distinct phases.

Method of the Study

"Survey refers systematic data collection about a sample drawn from specified larger population" (Schwarz et al., 1998). The population of this study is 700 students of bachelor degree. Consequently, this study employed the cross-sectional survey method.

Population and Sample

This study involved a finite population. The total students of bachelor of Diktel Multiple campus was around 700 which includes three faculties: Education, Humanities and Social Sciences, and Management. All the students were the population for the study. A total of 105 students were purposefully selected as a sample from three different faculties.

Sampling Procedure

A total of 105 students were selected through a purposive sampling technique from the bachelor-level cohorts across three faculties: Education, Humanities and Social Sciences, and Management at Diktel Multiple Campus.

Data collection tool and procedure

The survey questionnaire was as the tool for data collection.The researcher visited their respective classroom and distributed the questionnaire to the selected students. Furthermore, the researcher elucidated the purpose of each question, instructing the students to provide their responses in accordance with the given guidelines.

Data Analysis Procedure

The collected data were organized and classified based on their characteristics. For this purpose, the researcher used approach proposed by Kumar (2017) such as gathering, editing, coding, and analyzing the data. Calculations were performed, and the percentages for each data set were

determined. The data were presented in a table, and the analyzed findings were illustrated in a pie chart.

Chapter Five
Result and discussion

This data was collected using 23 questions, concentrating on the study of the possession of smartphones by students at the bachelor level, their use of smartphones for classroom learning in various subjects, exploring additional contexts in which students use smartphones, and the negative impact of smartphones on their academic activities.

Presentation and Interpretation of Data

The first question concerns the possession of smartphones by bachelor-level students of three faculties: humanities and social sciences, Education, and Management. The possession of a smartphone impacts the use of mobile devices in the learning process of subject matter. The possession of a smartphone is explicitly presented in Table 1.

Table 1

The Ownership of Smartphones Among Students

Options	Response to Options
Yes	103
No	2

According to the data presented in Table 1, a total of 103 students possess smartphones, while only 2 students lack access to such devices at the bachelor level of Diktel Multiple Campus. This indicates that 98.09 percent of the student population owns smartphones, while 1.91 percent do not, as illustrated in Figure 1.

Figure 1

The Possession of Smartphones by Students.
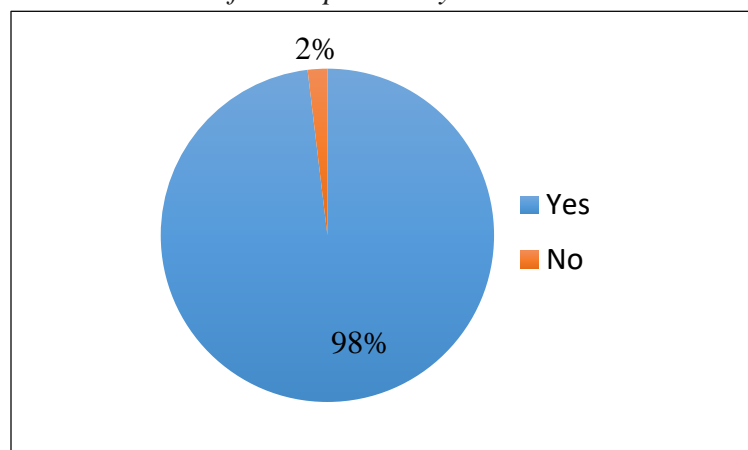
The second question concerns to the accessibility of internet or Wi-Fi connectivity for students at their home.The possession of a smartphone and a reliable internet connection is a crucial factor for students to obtain resources on their devices. Table 2 illustrates the number of students who have access to an internet connectionat their homes.

Table 2

Access to Wi-Fi or the Internet for Students at Home.

Options	Response to Options
Yes	65
No	20

As shown in Table 2, a total of 65 students possess Wi-Fi or internet connectivity at home, while 20 students do not have this access. This suggests that 61.90 percent of the students have internet access at their homes, while 19.04 percent are without this facility, as shown in Figure 2.

Figure 2

Access to Wi-Fi and internet connectivity for students in their home environments
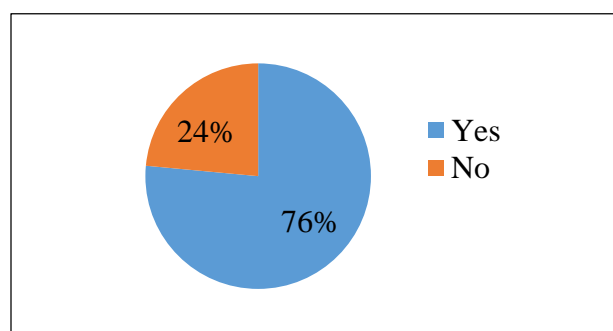
The third question concerns the use of smartphones in different facets of a student's life. The data shows that students use their phones for a range of purposes, including studying, playing games, visiting social sites, and communicating with friends and relatives. Table 3 shows the different contexts in which students use smartphones in their daily lives.
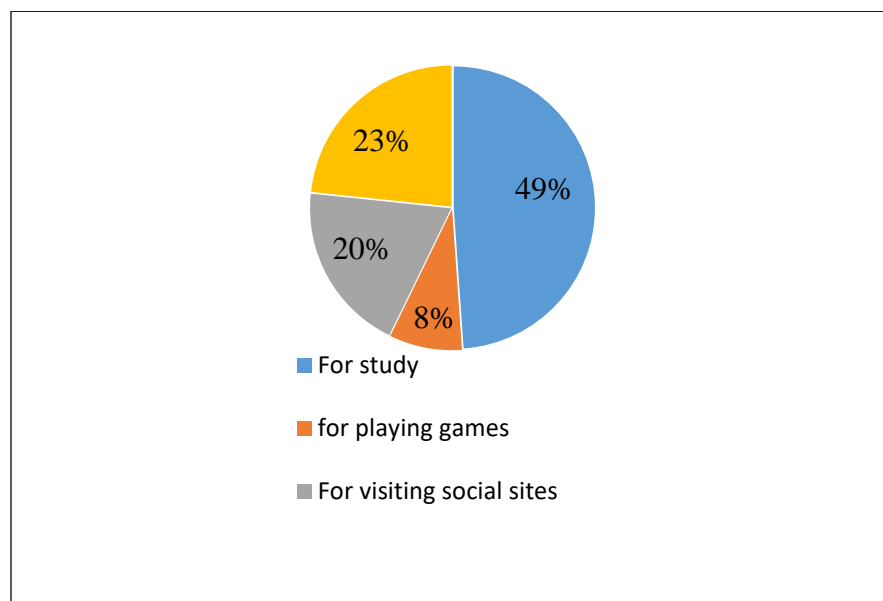
Table3

The use of smartphonesin different facets of a student's life

Options	Response to Options
For study	88
for playing games	15
For visiting social sites	35
chatting / communicating with friends and relatives	42

The data illustrated in Table 3 shows that 88 (83.80%) students, representing 83.80 percent use their smartphones for studying academic courses, while 15 or 14.28 percentuse these devices for playing games. Moreover, 35 (33.33%) students use these devices for visiting social media sites, and 42 (40%) students utilize them for chatting or communicating with friends and relatives.Furthermore, this concept is more explicitly shown in Figure 3.

Figure 3

The purposes of using a Smartphone in daily

The fourth question concerns the number of students using smartphones to learn academic subjects.Table 4 illustrates the number of users who use smartphones to learn academic subjects.
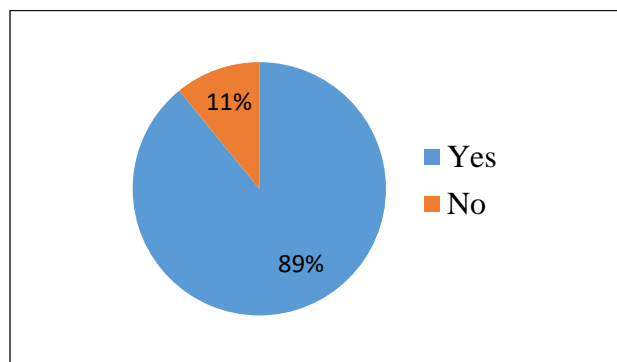
Table 4

The Number of Students who Use Smartphones in Learning Classroom Subject

Options	Response to Options
Yes	90
No	11

As indicated in Table 4, among 105 students 90 (85.71%) students use smartphones for the purpose of learning classroom subjects, while only 11(10.47%) students do not use these devices. Moreover, there are 4 students who did not provide a response to any of the options presented.Furthermore, this concept is more explicitly illustrated in Figure 4.

Figure 4

The Number of Students who Use of Smartphone in Learning Classroom Subject

The fifth question concerns to the students who acknowledge that smartphones facilitate the learning of subject matter in their daily lives. Table 5 illustrates the number of students who accept that smartphones contribute to their learning of subject matter in their daily lives.
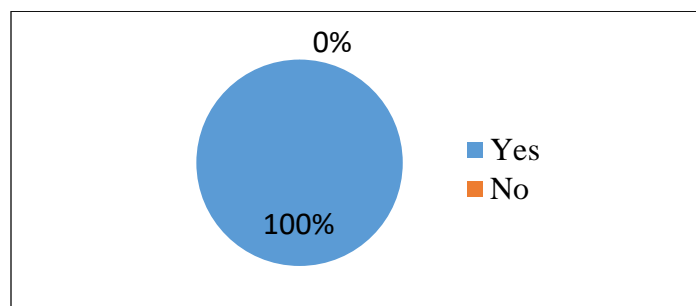
Table 5

The Number of Students who accepted that Smartphones Help to learn subject matter

Options	Response to Options
Yes	105
No	0

As shown in Table 5, all 105 (100 %) students accepted that smartphones help in learning the subject matter, while none rejected this notion. Moreover, this concept is more explicitly illustrated in Figure 5.

Figure 5

The Number of Students who accepted that Smartphones Help to learn subject matter

The sixth question concerns to the location and timing of smartphone usage among students. Table 6 shows the different contexts in which students use their smartphones.
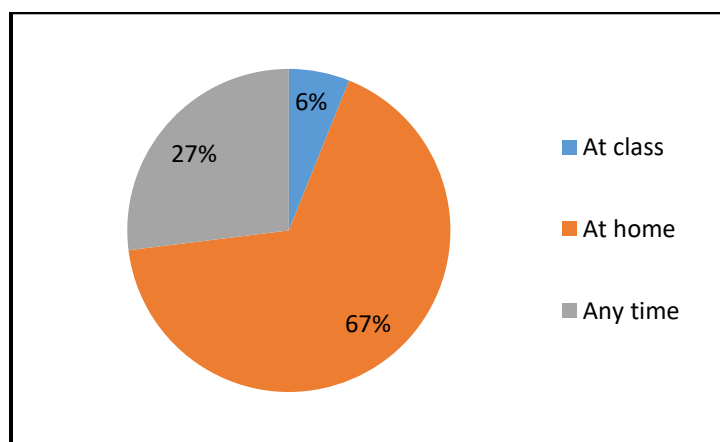
Table 6

Location for using the Smartphone

Options	Response to Options
at class	7
at home	77
any time	31

As indicated in Table 6, 77 (77.33%) students use smartphones when they are at home, while 31(29.52 %) students use anytime. Moreover, 7 (6.66 %) students only use in class. Moreover, this concept is more explicitly shown in Figure6.

Figure 6

Location for using the Smartphone

Question 7 concerns the influence of smartphones on various dimensions of students' involvement in their educational activities. Table 7 presents an overview of which aspect of the student's learning activities affects the smartphone.
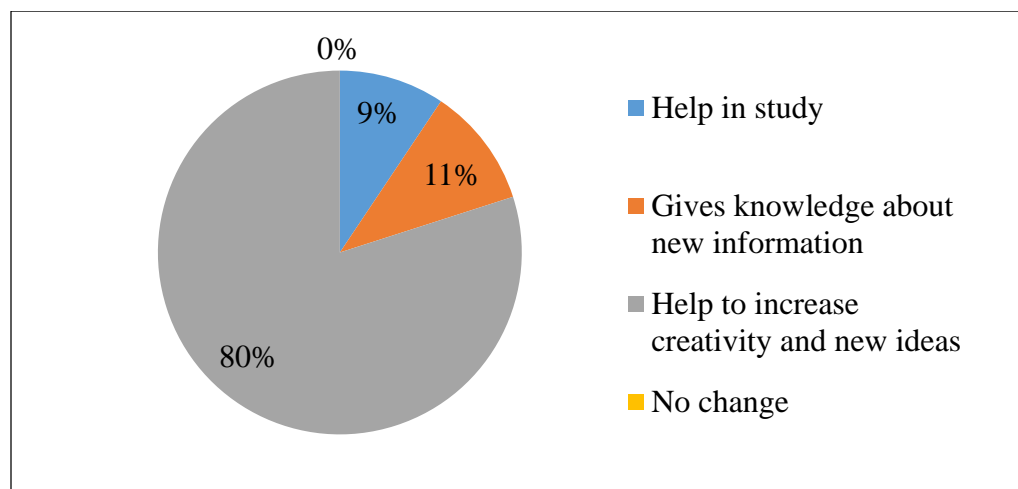
Table 7

Positive impact of the Smartphone

Options	Response to Options
Help in study	66
Gives knowledge about new information	75
Help to increase creativity and new ideas	51
No change	0

As shown in Table 7, a total of 66 (62.85 %) students reported that smartphones are beneficial for their study, while 75 (71.42 %) students noted that these devices provide access to new knowledge. Moreover, 51(48.57 %) students expressed that smartphones contribute to enhancing creativity and generating new ideas. Notably, no responses were indicating any negative effects associated with smartphone usage. Moreover, this concept is more exciplitly shown in Figure 7.

**Figure 7**

Positive impact of the Smartphone

Question 8 concerns the role of smartphones in facilitating the learning of different aspects of knowledge in the life of the students. Table 8 illustrates how smartphones assist students in learning various aspects of knowledge in their lives.

Table 8

Help of the Smartphone on different aspects of learning

Options	Response to Options
Finding difficult meaning	54
finding answer	44
finding additional ideas of subject matter	76
preparing notes	28
generating a new ideas	35

As shown in Table 8, 76 (72.38 %) students use the Smartphone to find additional ideas on the subject matter, and 54 (51.42 %) students find that it helps to find the difficult meaning. Similarly, 44 (41.90 %) students find that it helps to find answers, while 35 (33.33 %) students find that it helps to generate new ideas. At last, 28 (26.66 %) students find that it helps them in preparing notes. Moreover, this concept is more clearly shown in Figure 8.

Table 8

Help of the Smartphone on different aspects of learning
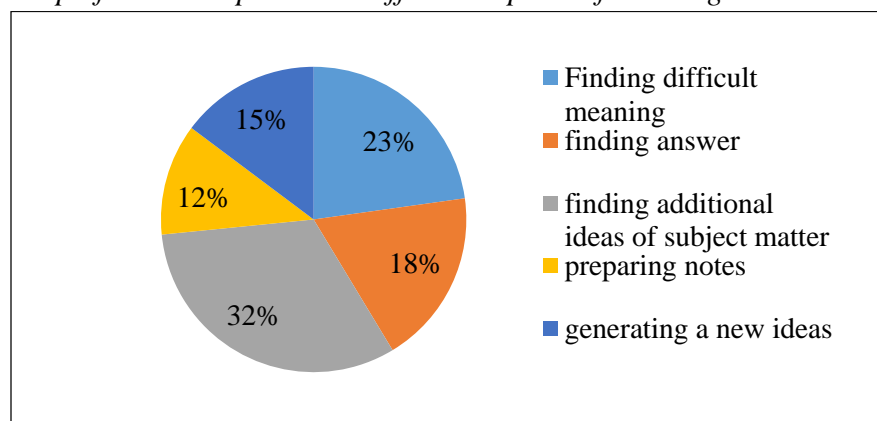
Question 9 concerns using smartphones to learn different subjects at the bachelor's level. Table 9 shows the number of users who do so.
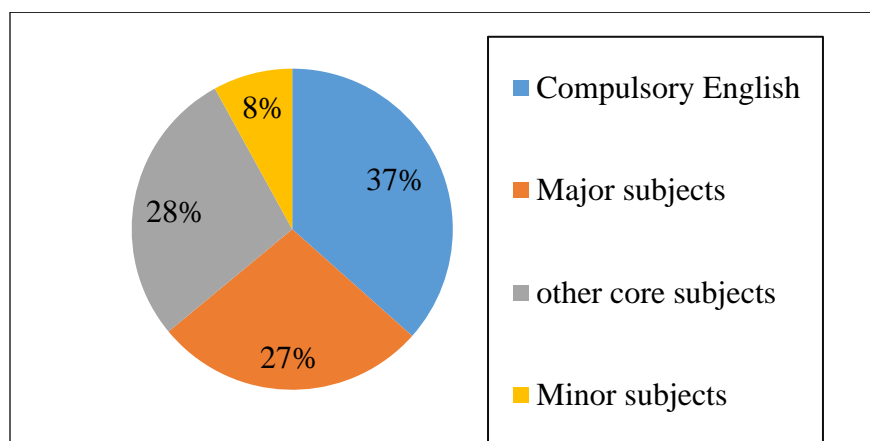
Table 9

Usefulness of the Smartphone for learning different subjects

Options	Response to Options
Compulsory English	64
Major subjects	48
Other subjects	49
Minor subjects	14

As shown in Table 9, 64 students use smartphones to learn compulsory English, 48 students use smartphones to learn major subjects, 49 students use smartphones to study other core subjects, and 14 students use smartphones to learn minor subjects.

Figure 9

Usefulness of the Smartphone for learning different subjects

Question 10 concerns the usefulness of the Smartphone for learning different aspects of compulsory English. Table 10 presents data on the number of students using smartphones to enhance their understanding of different aspects of compulsory English.

Table 10
*Usefulness of the smartphone for learning different aspects of compulsory English*

Options	Response to Options
Finding spelling of difficult words	46
Finding the meaning of words	60
learning grammar and structure	56
to find more possible questions for practice	41
writing answers for the questions	30

As illustrated in Table 10, a total of 46 students use smartphones to ascertain the spelling of difficult words. Similarly, 60 students use these devices to find the meaning of the words. Furthermore, 56 students use smartphones to learn grammar and structure, while 41 students use

these devices to find more possible questions for practice. Finally, a total of just 30 students used smartphones to write answers to the questions. Moreover, this concept is more clearly shown in

Figure 10

Usefulness of the smartphone for learning different aspects of compulsory English
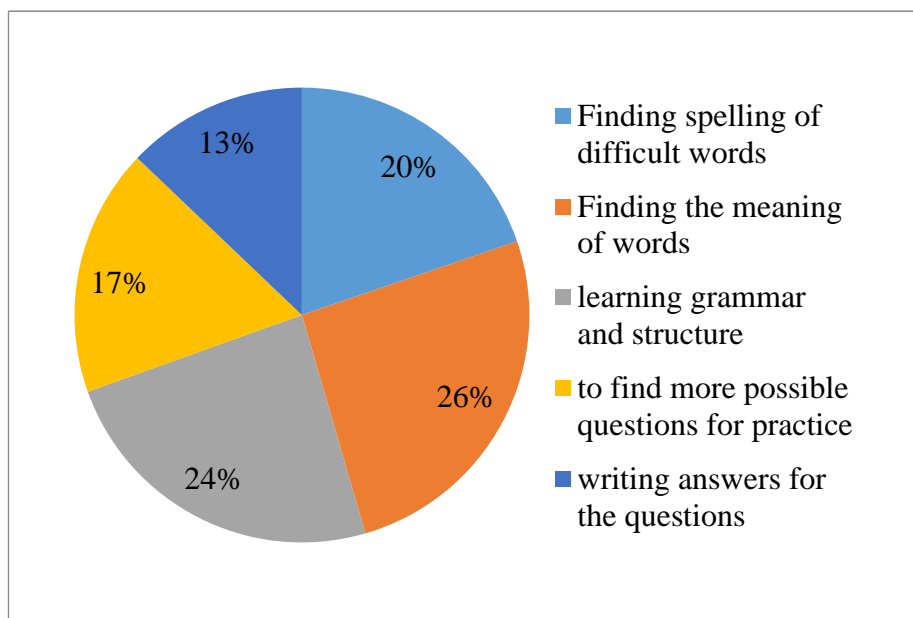
Question 11 concerns the role of smartphones in learning the vocabulary of learning new words. Table 11 presents data on the number of students who use smartphones as a tool for vocabulary enhancement and the learning of new vocabulary.

Table 11

*Use of the smartphone for learning vocabulary or learning new words*

Options	Response to Options
Providing correct pronunciation	47
Meaning	66
Correct use of words	48

Table 11 illustrates that 66 students responded that smartphones are utilized for acquiring the meanings of words. In a similar vein, 48 students reported that these devices assist in understanding the proper usage of words. Additionally, 47 students noted that smartphones are

employed to learn the accurate pronunciation of words. Furthermore, this concept is more clearly shown in Figure 11.

Figure 11

Use of the smartphone for learning vocabulary or learning new words
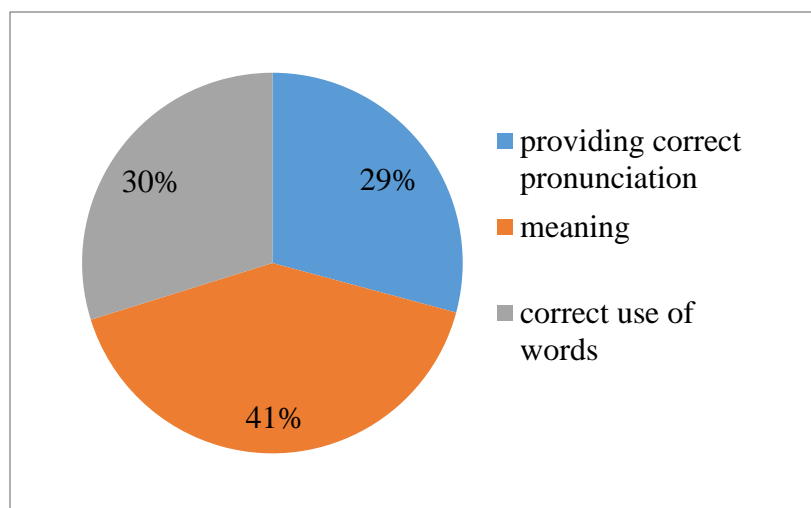
Question 12 concerns the learning of words about different contexts and their uses. Table 12 shows the process of word-meaning learning as it pertains to different contexts and their respective uses.

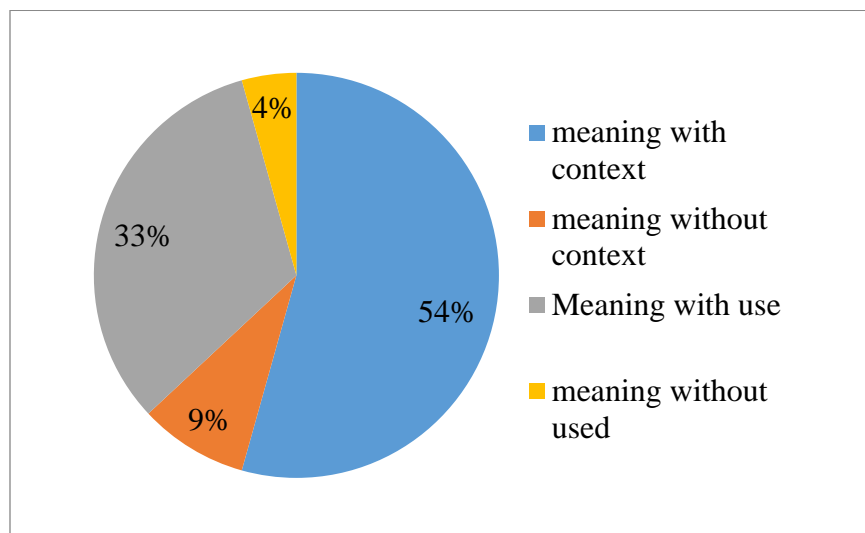**Table 12**
The Smartphone helps the learning of word meanings

Options	Response to Options
meaning with context	75
meaning without context	12
Meaning with use	45
meaning without used	6

As shown in Table 12, a total of 75 students use smartphones to learn the meaning with context, while 12 students use smartphones to learn meaning without context. Similarly, 45 students use smartphones to learn meaning through practical applications, whereas 6 students use them to

learn meaning without practical applications. Moreover, this concept is more clearly illustrated in Figure 12.

Figure 12

The Smartphone helps the learning of word meanings

Question 13 concerns the impact of smartphones on learning compulsory English at the bachelor level. Table 13 represents the impact of smartphones on learning compulsory English.

Table 13

*The impact of smartphones on learning compulsory English*

Options	Response to Options
Strongly agree	23
Agree	75
Uncertain	3
Disagree	3
Strongly disagree	0

As shown in Table 13, a total of 23 students express strong agreement regarding the impact of smartphones on their learning of compulsory English. that smartphones have brought a change in their learning of compulsory English. Similarly, a total of 75 students agree that smartphones have had an impact on their learning of compulsory English, whereas 3 students are uncertain

and 3 students disagree. However, no one strongly disagrees with the impact of smartphones on learning compulsory English. Moreover, this concept is more clearly explained in Figure 13.

Figure 13

The impact of smartphones on learning compulsory English
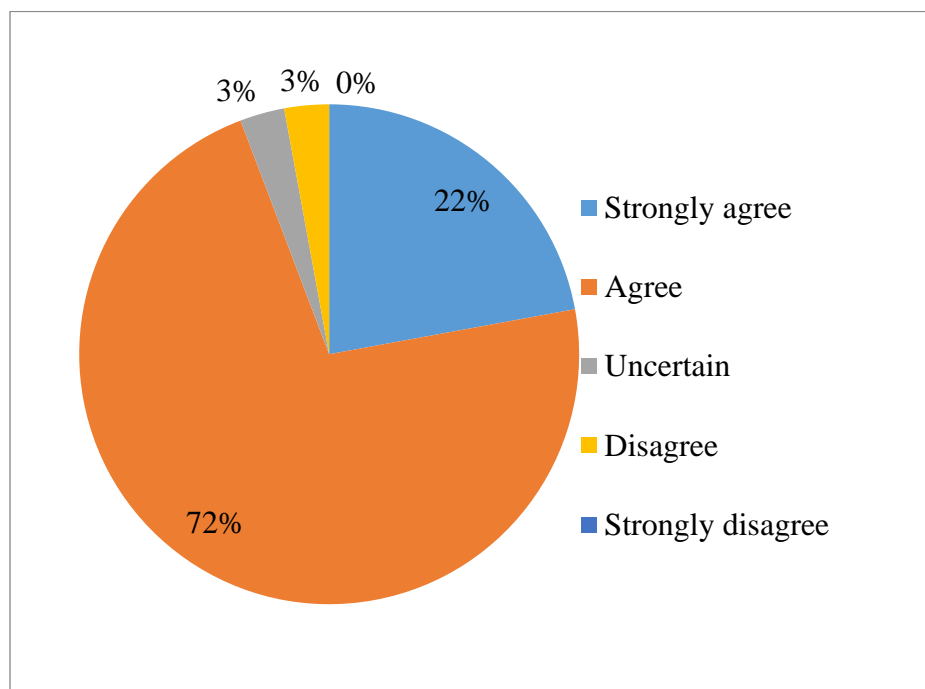
Question 14 concerns the number of students who prefer to use the smartphone as a tool for learning in their daily learning activities. Table 14 shows some students who prefer to use smartphones as learning tools.

Table 14

*Preference of using the smartphone as a tool for learning*

Options	Response to Options
Very often	24
Often	88
Never	0

As shown in Table 14, a total of 88 students often prefer to use the smartphone as a tool for learning. Similarly, 24 students very often like to use the smartphone as a tool for learning,

whereas the never-rank scale does not get any reactions from students. Moreover this cocept is more clearly illustrated in Firure 14.

Figure 14

Preference of using the smartphone as a tool for learning
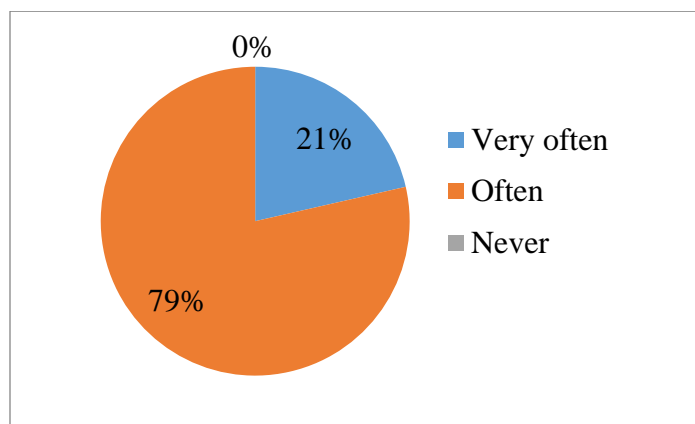
Question 15 concerns the use of social media in the student's daily life. The use of smartphones is directly connected to the use of social media. In the past, social media platforms were only used for entertainment, whereas nowadays, social media is used to learn and deliver knowledge-based content, and students can use it as a learning platform. Thus, social media is part of mobile learning activities, and it is included in this study. Table 15 presents the responses given by the students concerning their participation in social media.

Table 15

Use of social media in students' daily life

Options	Response to Options
Very often	26
Often	67
Never	1

As shown in Table 15, a total of 67 students oftenuse with social media as part of their daily routines. In addition, 26 students use social media very often, whereas one student does not

engage social media at all in their daily lives. Furthermore, this concept is more clearly shown in Figure 15.

Figure 15

Use of social media in students' daily life
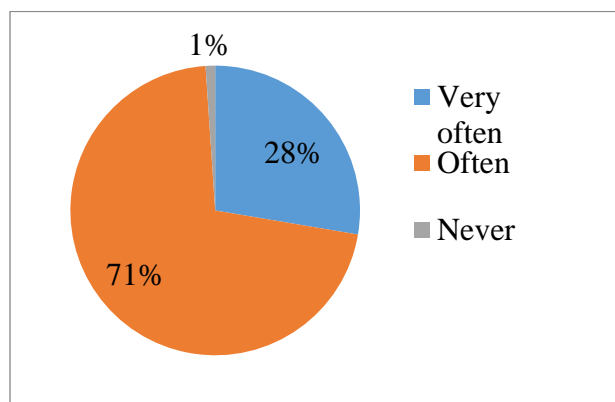
Question 16 concerns the use of different sorts of social media and search engine. These social media are used for entertainment as well as a source of knowledge. This concept is shown in Table 16.

Table 16

Use of different sorts of social media and search engine by the students

Options	Response to Options
YouTube	85
Facebook	77
Instagram	31
Tik-Tok	41
Snapchat	13
Google (search engine)	91

As shown in Table 16, a total of 85 students participate with YouTube, 77 with Facebook, 41 with Instagram, and 13 with Snapchat. Furthermore, data indicates that each of them actively participates in social media. Additionally, out of a total of 105 students, 91 (86.66%) students use Google as their preferred search engine. Furthermore, Figure 16 illustrates this concept more clearly.

Figure 16

Use of different sorts of social media and search engine by the students
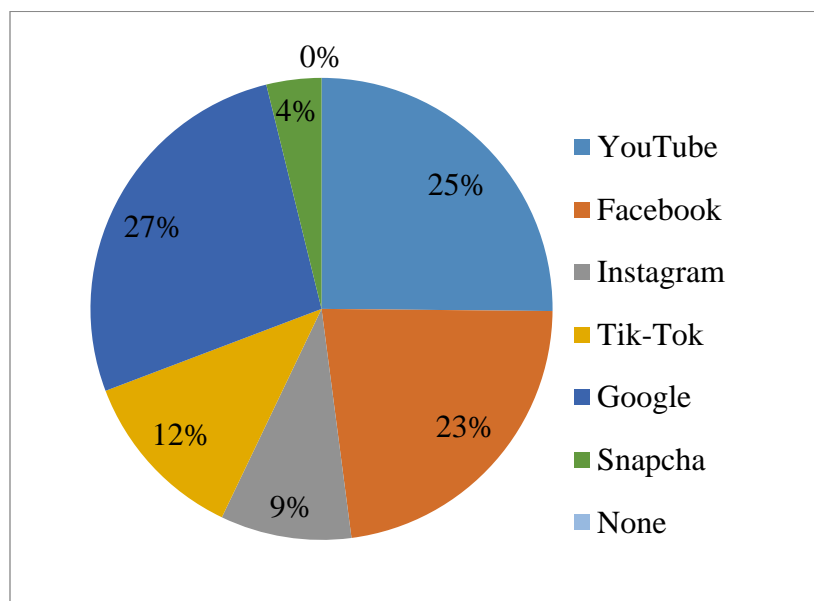
Question 17 concerns the duration of time that students spend on social media and smartphone usage. Table 17 shows the daily usage of social media and smartphones among students for various periods.
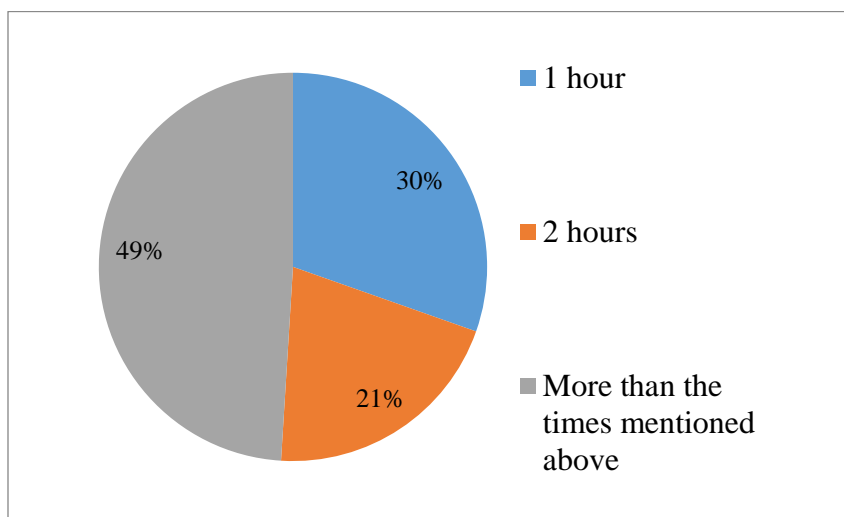
Table 17

Time spending on social media and smartphone by students

Options	Response to Options
1 hour	31
2 hours	21
More than the times mentioned above	50

As indicated in Table 17, a total of 50 students engaged more than 2 hours in the use of social media and smartphones. Likewise, 21 students spend 2 hours, while just 31 students engage with social media and their smartphones for 1 hour. Furthermore, it is more clearly shown in Figure 17.

Figure 17

Time spending on social media and smartphone by students

Question 18 considers to use of social media sites on the student's smartphone. Table 18 presents these purposes for using social media sites on the smartphones of students.
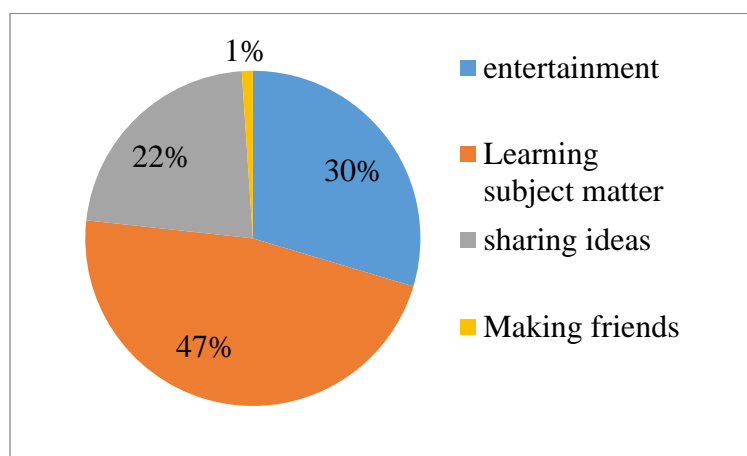
Table 18

The purposes of using social sites on your smartphone

Options	Response to Options
entertainment	56
Learning subject matter	89
sharing ideas	42
Making friends	2

As shown in Table 18, 89 students use social sites on their smartphones to learn the subject matter, whereas 56 students use them for entertainment. Likewise, 42 students use them to share ideas, whereas 2 students use them to make friends. Moreover, Figure 18 illustrates this concept more clearly.

Figure 18

The purposes of using social sites on your smartphone

Question 19 considers the role of social media and smartphones in facilitating students' learning in different class subjects. Table 19 shows the role of social media and smartphones in facilitating students' learning in different class subjects.

Table 19

Help of social media for students learning subject in class

Options	Response to Options
Strongly agree	12
Agree	71
Uncertain	10
Disagree	2

Strongly disagree   0

In the data presented in the table 19, it is evident that 12 students expressed strong agreement regarding the beneficial effects of social media on learning subject matter, while 71 students indicated general agreement. Conversely, 10 students remained uncertain about this impact, and 2 students stated disagreement with the notion that social media has a positive influence on learning. Furthermore, this concept is shown in Figure 19.

Figure 19

Help of social media for students learning subject in class
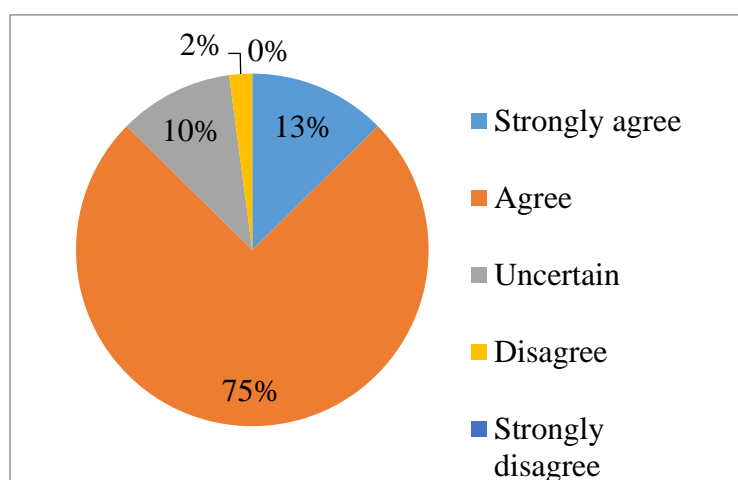
Question 20 concerns the impact of social media sites on the learning of compulsory English for bachelor-level students. Table 20 shows the impact of social media sites on the learning of compulsory English for bachelor-level students.

Table 20

*Impact of social media on the learning of compulsory English for Bachelor level students*

Options	Response to Options
Strongly agree	15
Agree	84
Uncertain	5

Disagree	0
Strongly disagree	1

As shown in Table 20, a total of 15 students strongly agree that social media sites help in their learning of compulsory English. Similarly, 84 students have expressed a general agreement on the positive help of social media sites in their learning of compulsory English, while only 5 students remain uncertain about the beneficial help of these sites. No one disagrees, while, only one student disagrees about the effectiveness of social media sites in learning compulsory English.Moreover, this concept is more clearly shown in Figure 20.

Table 20

Impact of social media on the learning of compulsory English for Bachelor level students
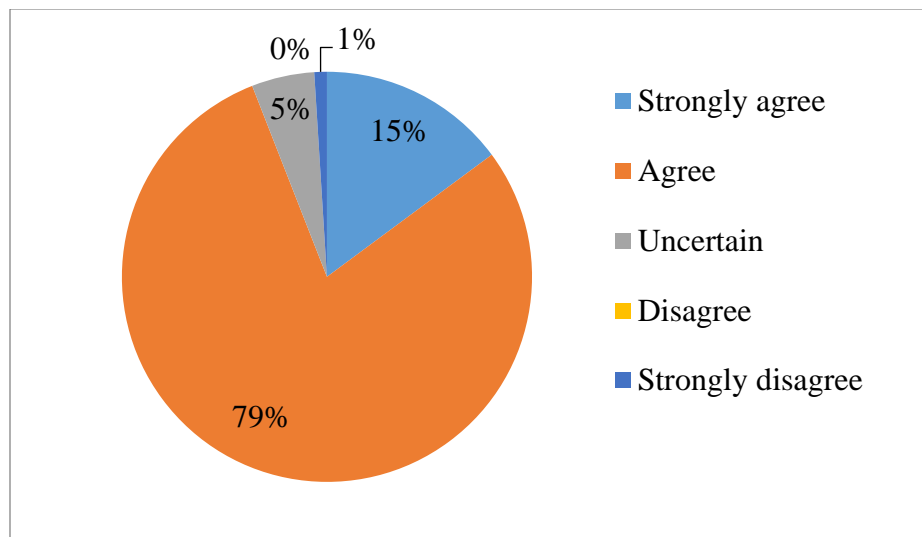
Question 21 concerns the negative impact of smartphones on the study. Table 21 shows the negative impact of the smartphone on academic performance as well as different other areas.

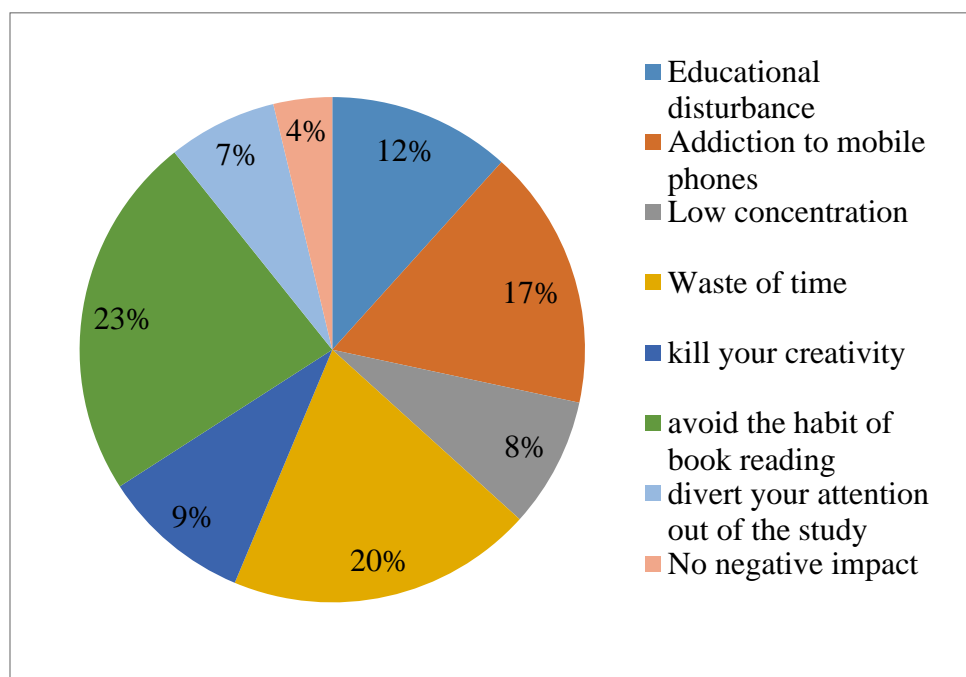**Table 21**

The Negative impact of smartphones on study

Options	Response to Options
Educational disturbance	28
Addiction to mobile phones	40
Low concentration	20
Waste of time	47

kill your creativity	23
avoid the habit of book reading	56
divert your attention out of the study	22
No negative impact	9

As shown in Table 21, the excessive use of smartphones adversely affects different students. A total of 28 students responded that smartphone usage causes disturbance in their educational activities. Similarly, 40 students acknowledged that the overuse of mobile leads to the development of an addiction to mobile phones. Additionally, 20 students reported that smartphone diverts their concentration, while 22 students noted that it diverts their attention out of the study. Furthermore, 47 students reported that excessive smartphone use leads to a waste of time. Moreover, a total of 56 answered that smartphone use avoids the habit of books, whereas only 9 students stated that overuse of smartphones does not have a negative impact. Moreover, this concept is shown in Figure 21.

Figure 21

The Negative impact of smartphones on study

Question 22 considers the impact of excessive smartphone usage on the student's academic performance. Table 22 shows the students' responses regarding their experiences with the overuse of smartphones.
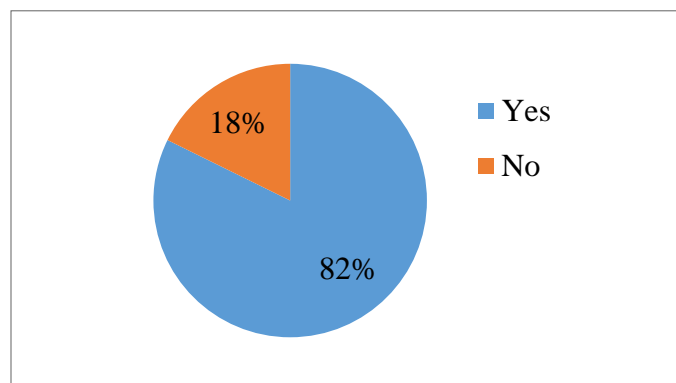
Table 22

The impact of excessive smartphone usage on the student's academic performance

Options	Responses
Yes	79
No	26

As presented in Table 22, 79 students responded that excessive smartphone use negatively impacts theiracademic performance, while 26 students responded that it has no negative impact. Moreover, this concept is more clearly shown in Figure 22.

Figure 22

The impact of excessive smartphone usage on the student's academic performance

Question 23 shows additional activities in which students engage with their smartphones during their free time. Table 23 provides a summary of these activities.

Table 23

Involvement of students in different activities in their free time

Options	Response of Options
Using smartphone and playing games	20
Use for visiting social sites	61
Use for learning your subject matters	55
spending time with family members and friends	50

As shown in Table 23, 12 students use their smartphones to play in their free time, whereas 61 students use them to visit social sites, and 55 students use them to learn different subject matters. 50 students spend their free time with their family members and friends. Table 23 illustrates this concept more explicitly.

Figure 23

Involvement of students in different activities in their free time
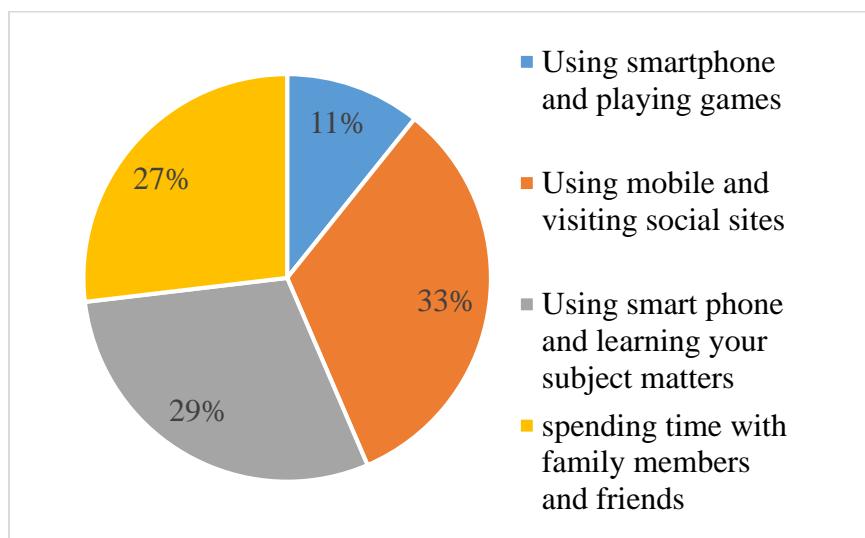
Findings of the Study

Smartphones are versatile and innovative devices of this era. They are good tools for people in any field or sector. Thus, no one can imagine their lives without smartphones. In this study, all respondents also accepted that they are useful tools for their studies. The principal findings of this research are outlined in the following sections.

The research indicates that a significant majority of students (98%) at Diktel Multiple Campus own smartphones, with only 2% lacking such devices. Furthermore, the findings highlight the need for additional research to explore the reasons behind the absence of smartphones among the 2% of students. Additionally, the research indicates the possibility of using the smartphone as a learning tool.

The study indicates that 76 percent of students possess internet access at home, whereas 24 percent lack such access. It is important to note that not all students are able to utilize

smartphones with internet connectivity in their residences. However, on campus, all students can use their devices that are connected to the internet.

The study reveals that 49 percent of students at Diktel Multiple Campus use their smartphones for academic purposes, whereas 23 percent employ in communication and chatting with family and friends. Additionally, 20 percent of the students access social media platforms, and 8 percent use their devices for playing games.

The study indicates that 89 percent of students at Diktel Multiple Campus utilize their smartphones as a tool for learning subject matter of their study, while 11 percent do not employ in this practice. All students accepted that smartphones serve as valuable devices for for enhancing their understanding of academic subjects.

The study indicates that 67 percent of students utilize smartphones within their homes, while 27 percent engage with them at any time, and 6 percent employ them during classroom.

The research indicates that the majority of students recognize the beneficial influence of smartphones on their everyday tasks. Specifically, 80 percent of the participants acknowledged that smartphones enhance creativity and foster innovative ideas. Additionally, 11 percent of students reported that smartphones provide access to new information, while 9 percent indicated that these devices assist them in their academic pursuits.

The research indicates that smartphones play a significant role in facilitating daily classroom activities. Specifically, 32 percent of students acknowledge that smartphones assist them in acquiring supplementary knowledge related to their subjects. Additionally, 23 percent report that these devices aid in understanding complex vocabulary, while 18 percent find them helpful in locating answers to questions. Furthermore, 15 percent of students believe that smartphones are beneficial for fostering creative ideas, and another 15 percent recognize their utility in note-taking.

The study indicates that smartphones help learn different types of subjects. Among them, 37 percent of students used to learn compulsory English, and 28 percent of students accepted that smartphones are useful for learning core subjects. Similarly, 27 percent of students have

accepted that they are useful for learning major subjects, while 8 percent have taken them as helpful tools for learning minor subjects.

The research indicates that smartphones facilitate the acquisition of various components of compulsory English subject. A significant 60 percent of students acknowledge that smartphones assist in understanding word meanings, while 56 percent consider them beneficial for learning grammar and sentence structure. Additionally, 46 percent find smartphones advantageous for determining the spelling of difficult words. Furthermore, 41 percent of students recognize smartphones as valuable resources for generating additional practice questions, and 30 percent regard them as effective resources for finding answers to those questions. Furthermore, in total, 66 percent of students use smartphones for learning meaning, 47 percent for learning pronunciation, and 45 percent for learning the correct use of words.

The research indicates that students engage with various forms of social media, including YouTube (27%), Facebook (23%), TikTok (12%), Instagram (9%), and Snapchat (4%). Furthermore, they utilize social media for both entertainment purposes and for gaining knowledge about different subjects. As a result, 75% of students agree that social media can support in their educational activities.

The research shows that extreme smartphone usage adversely affects various dimensions, including a decline in the habit of reading books (23%), time wastage (20%), smartphone addiction (17%), distraction from educational pursuits (12%), and a diversion of focus from academic activities. Furthermore, 82% of students accept that excessive use of smartphones negatively impacts their academic performance.

Chapter Five
Conclusions, Implications, and Recommendations

Conclusions

The research indicates that smartphones serve as a contemporary, informative, and adaptable educational resource. . Furthermore, it highlights the essential role of smartphones in the lives of students, suggesting that a separation between students and their smartphones is impractical. The smartphone must integrate with modern learning and teaching of academic subjects.

At present, every bachelor level student possesses a smartphone, which presents an opportunity to use this device as an educational resource. It is essential for the campus environment to promote the concept of smartphones as tools for learning, enabling students to maximize the benefits of these devices. In addition, this research indicates that a significant number of students are employing smartphones to study various subjects and explore different aspects of those subjects.

This research specifies that the overuse and unnecessary engagement with smartphones and social media adversely affect students' academic performance. Consequently, it is essential for students to receive appropriate guidance and support in using these digital resources effectively.

Implication of the study

Smartphones serve as remarkable and essential tools for education, benefiting both teachers and learners alike. In contemporary educational settings, the process of teaching and learning is significantly enhanced by the presence of smartphones. When utilized effectively, these devices contribute positively to the learning environment for students. They can facilitate learning across various subjects. The major implication of smartphones are outlined below.

The Implication of Smartphones as an Educational Device

Smartphones serve as valuable tools for improving students' academic performance in both compulsory and specialized subjects. They facilitate the learning of grammatical rules and

structural elements of languages. Furthermore, smartphones can help in expanding vocabulary, as well as in mastering spelling, meanings, and the appropriate usage of words.

Smartphones can be useful for both regular and irregular students. They can be used as connecting tools with students. Furthermore, they can be used to conduct online classes for students.

Smartphones facilitate access to educational resources, assist students with their homework, enable the administration of assessments, and provide support for examinations.

Smartphones are platforms for social media, and nowadays, social media is not only used for entertainment and communication; it can also be used as a source of knowledge to enhance the subject matter.

Students have the opportunity to prepare their notes and present them to their teachers for evaluation. Additionally, students can participate in online internal examinations organized by subject teacher.

Smartphones facilitate self-directed learning among students, enabling them to study their subjects independently and without the need for guidance from teachers.

Smartphones function as effective tools for collaborative learning and are additionally employed as tools for learning management systems.

The Implication of Smartphones as a Communication Device

Smartphones serve as tools for communication. They enable interaction among teachers and students. Students can communicate with teachers about their problems of subject matter andother issues using smartphones.

The Implication of Smartphone as Knowledge Enhancement Device

Mobile phones function as versatile devices that grant access to information in multiple fields. They help learners broaden their comprehension of a variety of subjects.

Recommendations

Based on the findings of recent research, it is recommended for the campus to consider the adoption and integration of smartphones as standard educational instruments. The following recommendations are proposed for the campus:

A majority of students employ smartphones for educational purposes; therefore, the campus must provide training for every teacher to effectively use these devices in their teaching.

The campus should promote and facilitate the integration of smartphones as standard instructional tools for teachers. Additionally, it is essential for the campus to assess the frequency of student attendance, distinguishing between regular and irregular participants. Based on this data, the campus must effectively organize online classes.

The campus must enhance and oversee the integration of digital tools and resources for each course, ensuring that daily classes are conducted utilizing these technologies.
The campus should provide students guidance on how to use smartphones as a learning tools.
The campus must integrate internal assessments and assignments with these digital platforms.
The campus should use social media platforms as innovative avenues for learning.
The campus should promote cooperative learning systems among students.
The campus must systematically integrate the Learning Management System (LMS) into its educational practices.

References

Anshari, M., Almunawar, M. N., Shahrill, M., Wicaksono, D. K., & Huda, M. (2017). Smartphones usage in the classrooms: Learning aid or interference?. *Education and Information technologies*, *22*, 3063-3079.

Artal-Sevil, J. S., Bernal-Agustín, J. L., & Navarro, J. D. (2015). m-Learning (Mobile Learning) in Higher Education. The impact of smartphone as interactive learning tool. In *EDULEARN15 Proceedings* (pp. 8212-8221). IATED.

Cohen, L., Manion, L, & Morrison, K. (2019). *Research methods in education.* Routledge.

Fouzdar, K., & Behera, S. K. (2017). Attitude of post graduate students towards mobile learning. *Educare*, *9*(2).

Ghimire, S. P. (2023). Use of Mobile/Smart Phones and Students' Mathematics Learning: A Case of Basic Schools in Nepal. *Pragyaratna प्रज्ञारत्न*, *5*(1), 108-118.

Mammadova, T. (2018). Smartphones and their role in the modern classroom. *Revue internationale des technologies enpédagogieuniversitaire*, *15*(2), 5-14.

Onyema, E. M. (2019). Opportunities and challenges of the use of mobile phone technology in teaching and learning in Nigeria—a review. *International Journal of Research in Engineering and Innovation*, *3*(6), 352-358.

Parajuli, K. P. (2016). Mobile learning practice in higher education in Nepal. *Open Praxis*, *8*(1), 41-54.

Sahlström, F., Tanner, M., & Olin-Scheller, C. (2019). Smartphones in classrooms: Reading, writing and talking in rapidly changing educational spaces. *Learning, Culture and Social Interaction*, *22*, 311-331.

Schiavi, G. S., da Silva Momo, F., Behr, A., & Scornavacca, E. (2019). Understanding smartphones usage context in the classroom.

Schwarz, N., Groves, R. M., & Schuman, H. (1998). Survey methods. *The handbook of social psychology*, *1*, 143-179.

Sorte, P. B., Silva, N. S., & Caravalho, C. B. D. (2020). Smartphones in higher education classrooms: motivations, rules, and consequences. *EducaçãoemRevista*, *36*, e230155.

Wali, A., & Omaid, M. (2020). The use of smartphones as an educational tool in the classroom: Lecturers' perceptions. *International Journal of Emerging Technologies in Learning (IJET)*, *15*(16), 238-247.

Zou, C., Li, P., & Jin, L. (2022). Integrating smartphones in EFL classrooms: Students' satisfaction and perceived learning performance. *Education and Information Technologies*, *27*(9),