

A STUDY ON THE USEFULNESS OF MOBILE LEARNING IN THE HIGHER EDUCATION SYSTEM IN THE PRESENT SCENARIO IN WEST BENGAL

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ABSTRACT:

The subject of our research is to explore the usefulness of mobile learning in the higher education system in the present scenario in west Bengal. The four purposes for which we have studied are - to know the usefulness of mobile learning in the higher education system in the present scenario, to find out the relationship between mobile learning and success rate in higher education at the present scenario, to find out students' attitudes towards mobile learning in higher education to identify factors that influence Mobile learning improvement at the higher education level. A survey research method was used for this study. A total of 145 students participated in the study using a structured online questionnaire containing 31 questions along with 5 point Likert scale. This study reveals that there are many benefits of mobile learning in the higher education system. While students benefit from mobile learning through the use of various educational apps, most of the students are satisfied with the usefulness of mobile learning. This study exhibit that most of the students think that mobile learning has a positive relationship with the success of higher education and mobile learning has a tremendous role in the success of higher education. This study reveals that all students have a positive attitude towards mobile learning in higher education and various factors such as cost-effectiveness, time flexibility, develop plans in the learning process, improves communication process, easy to time management, remote access to the information, creates a good environment for group study etc insure the improvement of mobile learning in higher education.

Keywords: Mobile Learning, Mobile Phone, Smartphone Technology & Higher Education

INTRODUCTION:

"Mobile-learning is the intersection of mobile computing and e-learning, that includes anytime, anywhere resources; strong search capabilities; rich interaction; powerful support for effective learning; and performance-based assessment." – Clark Quinn. Mobile learning is one of the new discoveries in the world of education at present. In the light of mobile learning, higher education, as well as the entire education sector, is enlightened. Mobile learning usually refers to the process of learning through mobile or using mobile phones to learn something. . Mobile learning has also emerged as a new technological achievement and educational trend that provides both educators and learners with ample opportunities (Ilci, 2014). With the use of mobile technologies, the potential for effective teaching Mohammadi et al. Mobile Learning Acceptance Among Faculty and learning is growing (Sanga et al., 2016; Abidin and Tho, 2018). Lan and Sie

(2010) describe mobile learning as a learning model that enables learners to access educational materials anywhere and anytime using mobile and internet technologies. “Mobile learning acceptance” is considered as the intention to use mobile technology or the attitude toward using that technology (Mittal et al., 2017). Mobile learning acceptance has also been defined as the People’s recognizing recognition of people and a process or condition without attempting to change or exit (Abas et al., 2009). The past few years have seen unprecedented advances in smartphone technology, which has led to the widespread use of mobile learning. The prevalence of mobile learning in higher education is increasing. However, in order to further improve mobile learning, both teachers and students need to be more aware of smartphone technology and internet services need to be further developed.

OBJECTIVES OF THE STUDY:

The objectives of the present study are:

1. To know the usefulness of mobile learning in the higher education system in the present scenario.
2. To find out the relationship between mobile learning and success rate in higher education at the present scenario.
3. To find out students' attitudes towards mobile learning in higher education.
4. Identify factors that influence Mobile learning improvement at the higher education level.

SIGNIFICANCE OF THE STUDY:

1. This study can be applied to know the usefulness of mobile learning in the higher education system in the present scenario.
2. This study can be applied to find out the relationship between mobile learning and success rate in higher education in the present scenario.
3. This research can be applied to make all higher education students more aware of the prevalence or use of mobile learning in higher education.
4. This research can be applied to make mobile learning more advanced, innovative in higher education.
5. This study can be applied to identify factors that influence Mobile learning improvement in higher education level students.
6. This study can be applied to investigate students' readiness and willingness towards mobile learning in higher education.

DELIMITATION OF THE STUDY:

The major delimitations of the study are:

1. This research is delimited with in the area in the State of West Bengal.
2. This research has been conducted with 145 numbers of Higher Education Level Students.

REVIEW OF RELATED LITERATURE:

1. **ALBĂSTROIU, I. and FELEA, M. (2016) conducted a research paper on the topic – “MOBILE LEARNING IN HIGHER EDUCATION: A SURVEY AMONG THE STUDENTS OF THE BUCHAREST UNIVERSITY OF ECONOMIC STUDIES”.** The purpose of this paper is twofold. The first goal is to analyze various theoretical approaches of the m-learning and, secondly, this paper aims to present the findings of a research among undergraduate and graduated students from The Bucharest University of Economic Studies. The objectives of the survey were to explore the ways students are already using mobile technologies to support their learning and to

identify students' readiness and also willingness towards the use of mobile devices in learning situations.

2. **Deka, D. (2020) conducted a research project entitled as, “A Study on E-Learning and its Usefulness with Special Reference to Library and Information Science Education”.** The purpose of this study is to know about the usefulness of e-learning and its impact on higher education and also in Library & Information Science (LIS) education. For the research work, 340 responses were collected from the LIS professionals and LIS students with the help of questionnaire form. The collected data highlights that most people are using the e-learning process for their teaching-learning and some other purposes.
3. **Toteja, R. and Kumar, S. (2012) conducted a research paper on the topic – “Usefulness of M-Devices in Education: A Survey”.** The present study is based on the survey among the undergraduate students. The usefulness is described by various parameters like availability, cost effectiveness, ease of use, and ease of handling and speed of retrieval. The results are consistent with the upcoming trend. The present study is aimed at exploring: Whether the enthusiasm of young generation for mobile devices can be harnessed to encourage participation in education or training, To ascertain whether mobile learning can result in improved literacy, numeracy or changed attitudes or behavior, including greater enthusiasm for learning and progression to further learning. Therefore, the focus is on the role of technology that can support learning that occurs across urban locations, learning arenas and communities.
4. **Ahmad, T. (2020) conducted a research project entitled as, “Student perceptions on using cell phones as learning tools - Implications for mobile technology usage in Caribbean higher education institutions”.** This paper aims to examine students' perception, views and opinions about the usage of mobile phones in an educational setting in a higher education institution located in Jamaica. The results of these findings were used to gain insights and to assist education policymakers in adopting most suitable approaches to integrating mobile technology in learning. A survey approach was used for this study. A total of 145 students participated in the study using structured questionnaire design containing 14 questions. The results indicated an overall positive student perception toward cell phones usage as a learning tool and integrating cell phones into learning activities. Students were keen on its usage as a social connectivity and collaborative tool, which they can use for flexible and personalized learning activities.

RESEARCH METHODOLOGY:

A brief description of the methodology of the study has been presented below:

Research design: Survey research method has been used for this study on the usefulness of mobile learning in the higher education system in the present scenario in West Bengal.

Tools of data collection: All the relevant data used in this research paper has been collected from higher education level students. We developed a self-made online questionnaire as an instrument for this survey study. . It consists of 31 questions along with the five points Likert scale. This questionnaire is a combination of both closed-ended and open-ended questions. This study is completely based on the primary data.

Population: The population of the study is all higher education level Students in West Bengal.

Sample: A total number of 145 responses have been received by the mobile-learning users of higher education level in west Bengal.

Table 1: Characteristics of the respondents (total = 145)

CHARACTERISTICS OF THE RESPONDENTS			
		Frequency	Percentage (%)
Gender	Male	72	49.7
	Female	73	50.3
Age	18-22	34	23.45
	23-27	97	66.90
	28-32	14	9.65
Students	Undergraduate	19	13.1
	Post-Graduate	34	23.4
	B.Ed	83	57.2
	M.Ed	5	3.4
	M.Phil	4	2.8
Students Living	Rural	90	62.1
	Urban	33	22.8
	Semi-Urban	22	15.2

Sampling Technique: We have used Non- Probability Sampling - Purposive Sampling technique.

Data Analysis: For the analysis of data, MS-excel has been used and through Descriptive statistical analyses (such as mean, frequencies, percentage and various graphical charts) it has been interpreted.

RESULT & FINDINGS:

A. USEFULNESS OF MOBILE LEARNING IN THE HIGHER EDUCATION SYSTEM

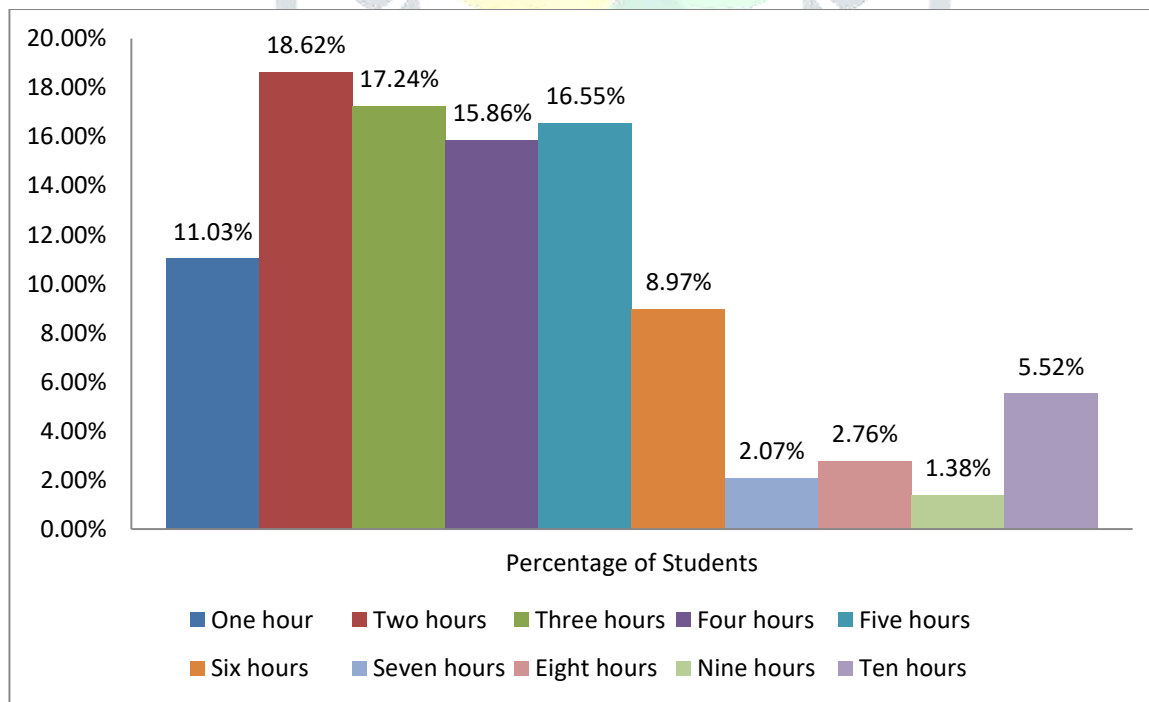


Figure 1: The time spent by the learners in Mobile learning

1. In higher education, 63.4% of students have a specific educational app on their Smartphone.

2. In higher education 44.1% of students always use the mobile phone as an educational tool, 14.5% of students often use the mobile phone as an educational tool, 37.9% of students sometimes use the mobile phone as an educational tool, 1.4% of students rarely use the mobile phone as an educational tool and 2.1% of students have never used a mobile phone as an educational tool.

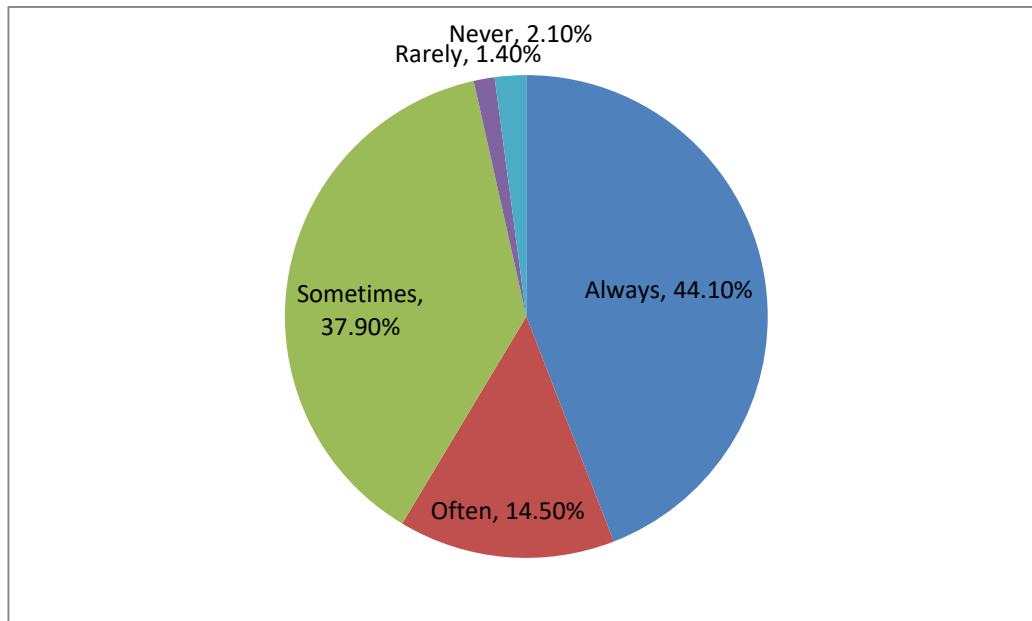


Figure 2: Frequency level of mobile phone usage as an educational tool

3. In higher education, 83.4% of students find mobile learning useful.
4. In higher education, 83.4% of students can be connected to learning anytime, anywhere through mobile phones.
5. In higher education, 86.2% of students can access any type of knowledge in the world through mobile learning from home.
6. 79.3% of students in higher education can collect various educational materials for free through mobile phones.
7. In higher education, 55.9% of students think that mobile learning is much more attractive than traditional learning methods.
8. 57.9% of students in higher education feel that they are more likely to practice learning as a result of mobile learning.
9. In higher education, 81.4% of students get the opportunity to follow the lectures or classes of any teacher in the country or abroad through mobile learning.
10. 98.6% of students in higher education can easily exchange any educational materials with friends through Smartphone technology.
11. In higher education, 62.1% of students write down any useful information about education on their mobile notepad.
12. In higher education, 97.2% of students collect any information related to education from Google through mobile phones.
13. At present, 16.6% of students are very satisfied, 52.4% of students are satisfied, 26.9% of students are neutral, 2.1% of students are dissatisfied and 2.1% of students are very dissatisfied with the usefulness of mobile learning in higher education.

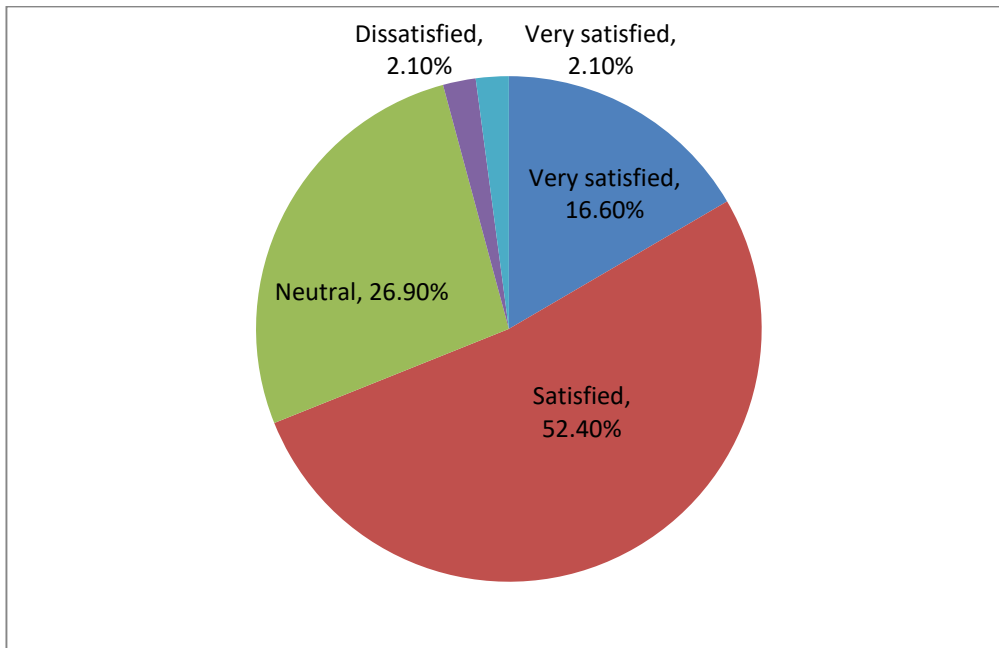


Figure 3: Satisfaction level of the students on the usefulness of mobile learning in higher education.

B. RELATIONSHIP BETWEEN MOBILE LEARNING AND SUCCESS RATE IN HIGHER EDUCATION

1. At the Higher Education level, 15.9% of students are ‘ Strongly Agree’, 55.2% of students are ‘ Agree’, 21.4% of students are ‘ Neutral’, 6.9% of students are ‘ Disagree’ and 0.5% of students are ‘ Strongly Disagree’ with the thought that mobile learning has a tremendous role in the success of higher education.
2. At present, 26.2% of students find mobile learning is very important for higher education success, 56.4% of students think it is important, 11% of students think it is moderately important, 4.8% of students think it is slightly important and 1.4% of students think it is not important.

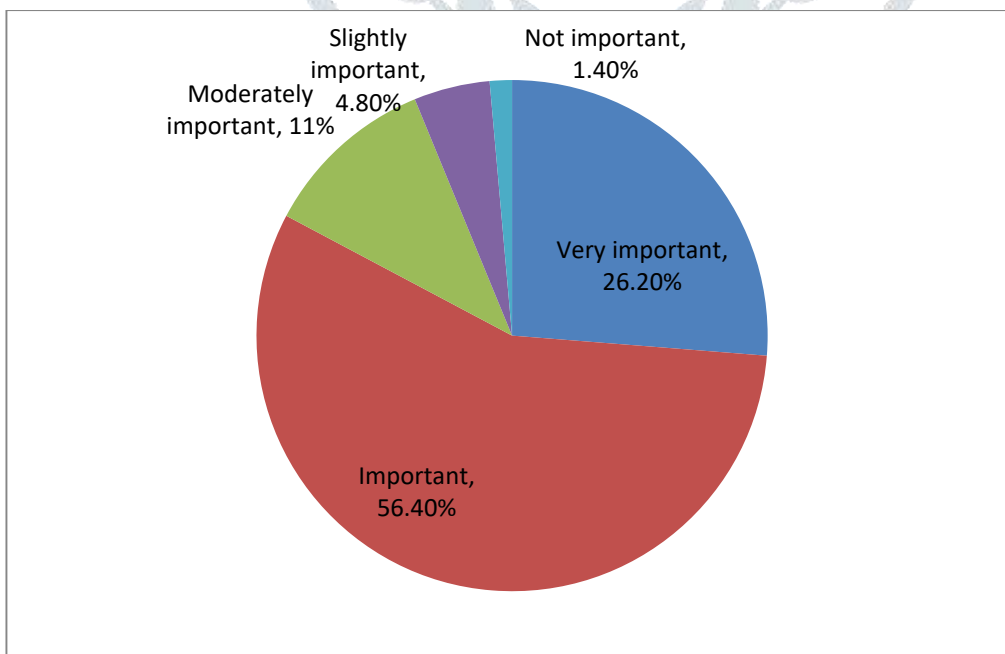


Figure 4: Importance of mobile learning in higher education success

3. At the Higher Education level, 17.2% of students are ‘ Strongly Agree’, 56.6% of students are ‘ Agree’, 17.9% of students are ‘ Neutral’, 6.9% of students are ‘ Disagree’ and 1.4% of students are ‘ Strongly Disagree’ with the thought that Mobile learning in higher education has made the learning process much more efficient.
4. At the Higher Education level, 31% of students are ‘ Strongly Agree’, 45.5% of students are ‘ Agree’, 17.2% of students are ‘ Neutral’, 5.5% of students are ‘ Disagree’ and 0.7% of students are ‘ Strongly Disagree’ with the thought that in the current situation if there was no mobile learning; there would be a lot of loss of education.
5. At the Higher Education level, 14.5% of students are ‘ Strongly Agree’, 57.2% of students are ‘ Agree’, 17.9% of students are ‘ Neutral’, 6.9% of students are ‘ Disagree’ and 3.4% of students are ‘ Strongly Disagree’ with the thought that in the current situation, the progress of higher education is increasing through the use of mobile phones.

C. STUDENTS' ATTITUDES TOWARDS MOBILE LEARNING IN HIGHER EDUCATION

Table 2: Students’ attitudes towards mobile learning in percentage (%)

STUDENTS’ ATTITUDES TOWARDS MOBILE LEARNING						
	Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)	Mean
1. mobile learning is an alternative medium to traditional education	11	53.8	17.9	16.6	0.7	3.58
2. mobile learning is comparatively time and money saving	18.6	49.7	17.9	12.4	1.4	3.72
3. it is possible to collect any educational information through mobile learning	23.4	55.9	13.8	6.2	0.7	3.95
4. mobile learning wastes a lot of time on your irrelevant topics	15.2	39.3	22.8	21.4	1.4	3.46
5. Smartphone technology will be widely used in the future instead of textbooks or regular lectures	8.3	35.2	24.8	24.8	6.9	3.13
6. mobile learning has a tremendous role in the success of higher education	15.9	55.2	21.4	5.5	2.1	3.77
7. mobile learning has increased your interest in education	11.7	36.6	22.8	24.1	4.8	3.26
8. mobile learning has made your learning process much easier	11	51	23.4	13.1	1.4	3.57
9. mobile learning is	22.1	51.7	16.6	4.1	5.5	3.80

needed by all students in higher education						
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D. VARIOUS FACTORS THAT INFLUENCE MOBILE LEARNING IMPROVEMENT IN HIGHER EDUCATION

1. At present, various factors play an effective role in the improvement of mobile learning in higher education. 4.1% of students think cost-effectiveness is the most effective, 5.5% of students think time flexible is the most effective, 6.9% of students think it helps in developing plans in the learning process is the most effective, 16.6% of students think improving communication process among all the learners is the most effective, 5.5% of students think easy to time management is the most effective, 49.7% of students think remote access to the information is the most effective and 11.7% of students think it creates a good environment for group study is the most effective.

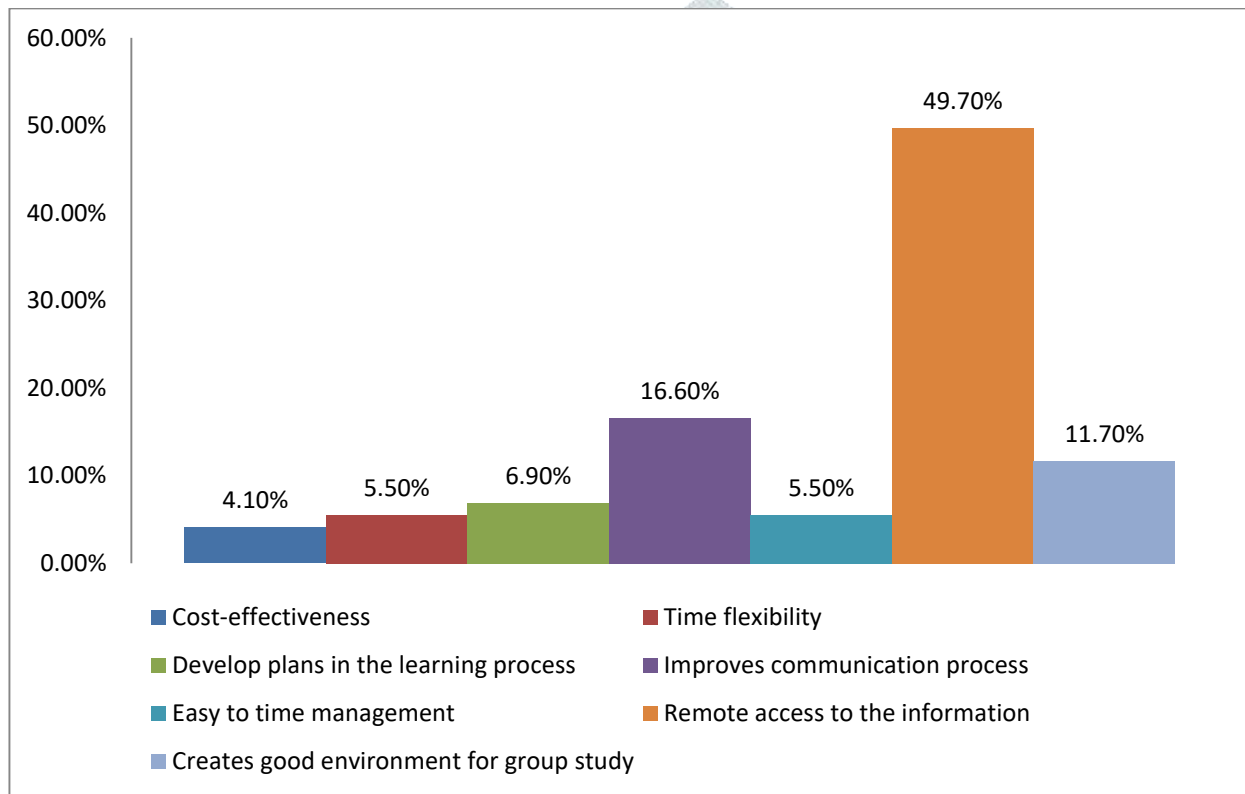


Figure 5: Factors that influence mobile learning improvement in higher education

2. At present, 18.6% of students think that the most important role of mobile learning in higher education is to connect with different types of teachers, 13.1% of students think that the most important role is to improve the quality of learning, 4.8% of students think that development of creativity is the most important role, 12.4% of students think that enhancing the efficacy of knowledge is the most important role, 8.3% of students think that the most important role is to individualize the learning experience of students, 5.5% of students think that mobile learners can share their ideas with everyone is the most important role and 37.2% of students think that assisting in the search for information is the most important role.

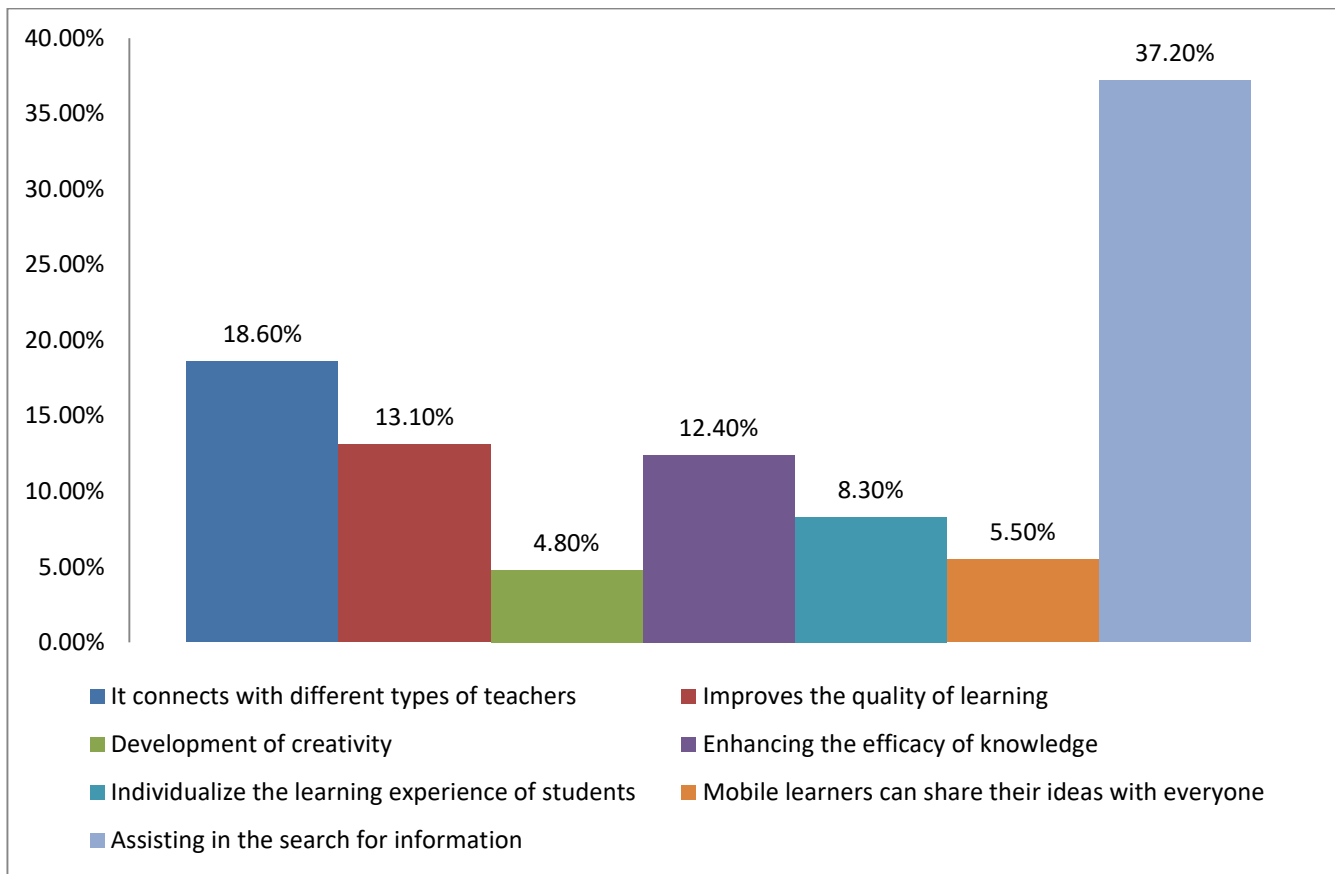


Figure 6: Importance of mobile learning in higher education

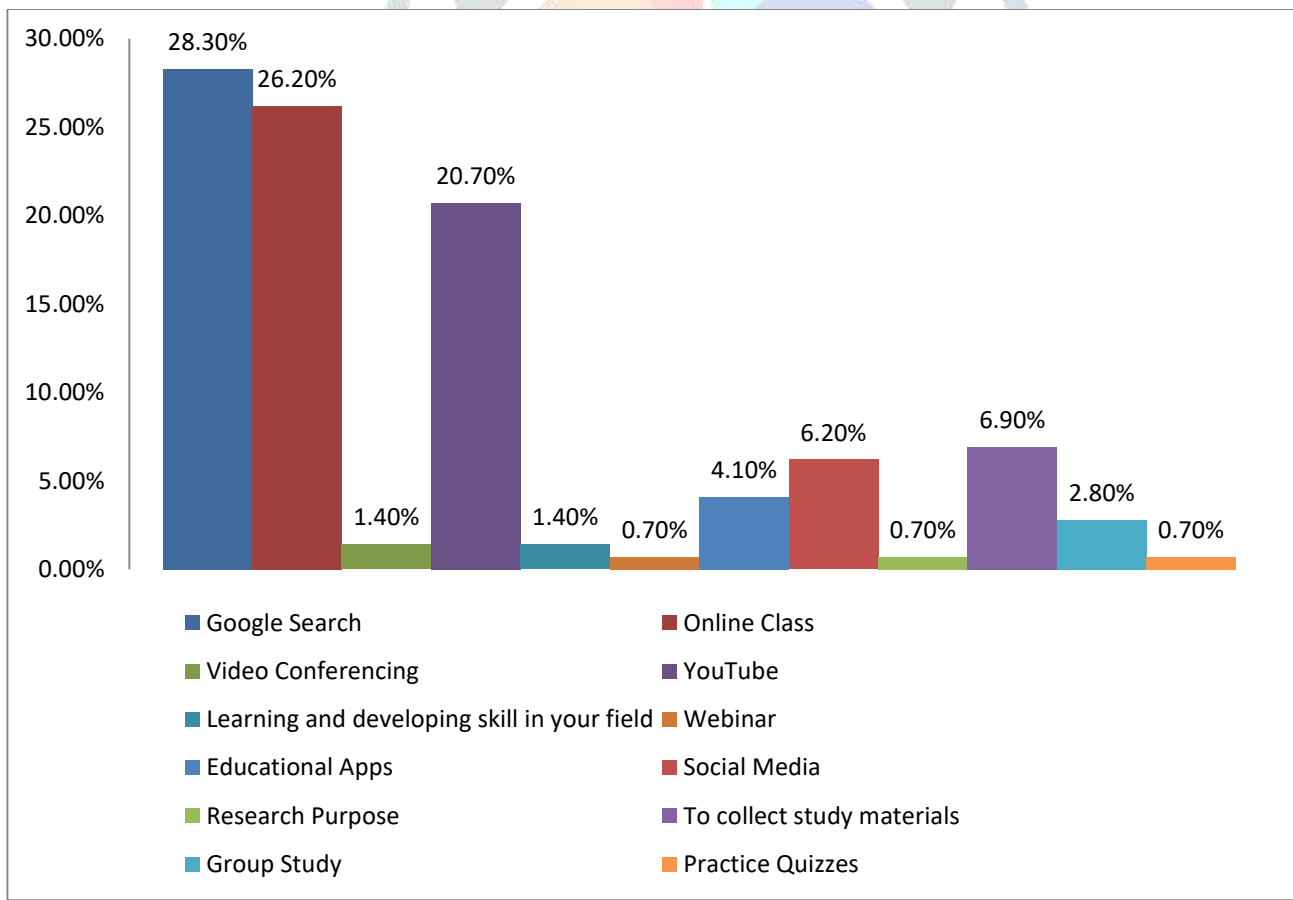


Figure 7: At present, the highest use of mobile phones in various fields of higher education

DISCUSSION:

After making an expensive research on the usefulness of mobile learning in the higher education system in the present scenario in West Bengal, we have explored various types of the usefulness of mobile learning in higher education such as:

- It can be accessed while we are at home.
- Most of the times, it does not require money to access the study materials.
- It saves time.
- It can be shared among friends or anyone who needs it.
- It is a great option for today's adults to open a YouTube or Facebook platform for online teaching.
- Online Access of Educational Books.
- Easy Access to Internet, mobile learning apps.
- Assessment of personal growth in learning.
- Distance education.
- Video conference.
- Online class.
- Google search, YouTube.
- Participants can learn wherever and whenever they want.
- It is more interesting and interactive.
- Easy accessible.
- Endless resources.
- Flexibility in access to materials.
- Group study.
- It connects different types of teachers.
- Perfect information is available on all subjects.
- Collecting study material from the internet in the current situation of Covid 19 and maintaining the process of teaching and learning.
- We don't find a lot of information in the book that can be easily found by Google on the phone to create notes.

But in addition to all these usefulness, there are some negative aspects too. This study reveals 36.6% of students do not have any specific educational app on their smartphone, 2.1% of students have never used a mobile phone for an educational tool, 16.6% of students do not consider mobile learning useful in higher education, 44.1% of students think that mobile learning is not much more interesting than traditional learning methods, 42.1% of students do not get much opportunity to practice studying in mobile learning, 18.6% of students do not follow the lectures of any teacher in the country or abroad through mobile learning, At present 2.1% of students are dissatisfied with the usefulness of mobile learning and 2.1% of students are very dissatisfied with the usefulness of mobile learning.

CONCLUSION:

The unparalleled advancement of smartphone technology at present has spread the scope of mobile learning all around. The importance of mobile learning in higher education is immense. Almost all the students of higher education benefit from mobile learning in one way or another, but there are some disadvantages besides the usefulness of mobile learning, but the amount is very small. This study highlights various aspects related to the usefulness of mobile learning in the higher education system in the present scenario in west

Bengal. The positive and negative aspects of the issues related to the usefulness of mobile learning in the higher education system have been reflected through this study. Through this study, we have come to know about the usefulness of mobile learning in the higher education system in the present scenario, the relationship between mobile learning and success rate in higher education at the present scenario, students' attitudes towards mobile learning in higher education, factors that influence Mobile learning improvement at the higher education level. This study reveals that there are many benefits of mobile learning in the higher education system. While students benefit from mobile learning through the use of various educational apps, most of the students are satisfied with the usefulness of mobile learning. This study exhibit that most of the students think that mobile learning has a positive relationship with the success of higher education and mobile learning has a tremendous role in the success of higher education. This study also reveals that all students have a positive attitude towards mobile learning in higher education. And various factors such as cost-effectiveness, time flexibility, develop plans in the learning process, improves communication process, easy to time management, remote access to the information, creates a good environment for group study etc insure the improvement of mobile learning in higher education. At present all higher education students are fascinated by the usefulness of mobile learning. Mobile learning is improving day by day. There are needs to be more research on this topic so that students can be more aware of the usefulness of mobile learning. It is hoped that in the future mobile learning will have a greater impact, creating a new impetus in the world of education.

SUGGESTION:

Although the prevalence of mobile learning is now widespread, the usefulness of mobile learning is increasing day by day, but it needs to be further improved. Higher education, as well as secondary, higher secondary level, should also increase the scope of mobile learning, so in this case, some suggestions can be given –

1. All students need to be aware of smartphone technology.
2. Smartphone technology needs to be further improved.
3. All students need to be made more aware of the usefulness and scope of mobile learning.
4. Different teachers need to be aware of smartphone technology and make mobile learning more widely available.
5. Arrangements should be made so that every student can enjoy the benefits of Mobile Learning.
6. Various e-learning initiatives need to be further developed to increase the opportunities for mobile learning.

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