



A STUDY ON ATTITUDE OF COLLEGE STUDENTS TOWARDS MOBILE LEARNING**Banashri Mandal****Guest Lecturer, Department of Education, Chhatna Chandidas Mahavidyalaya
Chhatna, Bankura, West Bengal, India.****ABSTRACT**

The aim of the study was to evaluate the attitude of college students of general degree college towards mobile learning. For this purpose 200 college students of general degree college in Bankura district of West Bengal were taken as representative sample for the whole population. The sample of 200 college students were selected through stratified random sampling. To analyze attitude towards mobile learning of the students mobile learning attitude scale was used. The statistical techniques used for this study was mean, standard deviation and t-test. The purpose of the study was to compare attitude towards mobile learning between Government and Government-aided college students, Male and Female college students, Rural and Urban college students, Arts and Science college students, General and OBC college students, General and SC college students, General and ST college students in Bankura district of West Bengal. The level of significance was tested at 0.05 levels. The findings of the study shows that, the attitude of college students in Bankura district of West Bengal is neither more favourable nor unfavourable towards mobile learning i.e. satisfactory or average in attitude towards mobile learning.

**KEY WORD:** Attitude, Compare, College Students, Mobile Learning, t-test.**INTRODUCTION**

Over the last few decades mobile technologies have improved greatly and the use of mobile devices has become more widespread. Mobile learning is a revolution in e-learning. Mobile learning is a relevant innovation in teaching and learning in higher education. Mobile technology is ubiquitous in the lives of today's college students. The pace of formal adoption and diffusion may not always be quick, but institutional barriers and faculty resistance to the introduction of technological advancements to the college classroom are ultimately overcome. Mobile learning often shortened as m-learning is the concept of gaining education on various available contexts by the usage of social media interactions and online content from using portable electronic media. Mobile learning is education via the internet or network using personal mobile devices, such as tablets and smart phones to obtain learning materials through mobile apps, social interactions and online educational hubs. It is flexible, allowing students' access to education anywhere, anytime. Mobile learning provides away for educational institutions to deliver knowledge and educational content to students on any platform, any place and at the time of need. Mobile learning is the ability to obtain or provide educational content on personal pocket devices such as PDAs, smartphones and mobile phones. Educational content refers to digital learning assets which includes any form of content or media made available on a personal device. Mobile learning supports, with the help of mobile devices, a continuous access to the learning process. More and more colleges are using laptops or tablets. There are increasingly more educational apps available for teachers. Students use mobile apps and tools to complete and upload assignments to teachers, download course instruction and work in online social group to complete tasks. M-

learning the spread and popularity of mobile devices has led to their increased application in higher education. Mobile learning is an extension of distance education, supported by mobile devices equipped with wireless technologies. Effective use of mobile technology is less about tools and more about students' digital literacy skills, including the ability to access, manage, and evaluate digital resources.

NEED AND SIGNIFICANCE OF THE STUDY:

India, with its huge population, is the most exciting higher education market in the world. Mobile learning represents a way to address a number of our educational problems. Mobile devices such as smartphones and tablets enable innovation and help students, teacher and parents gain access to digital content and personalized assessment vital for a post-industrial world. M-learning is the most convenient form of online educational platform today, simply because content can be accessed from any place on demand. Educators, employers, parents and the public have begun to emphasize the need for lifelong learning and 21st century skills. The last decades, mobile technologies such as, smart phones, tablets and laptops, as well as online applications and tools, become an integral part of the lives of most teachers and students in all over the world. Mobile learning is a relatively new research area, it is the basic of digital learning by the effective combination of mobile computing technology, make learners can at any time at any place you want to get the knowledge information, realizing the real sense of autonomous learning, finally realize the socialization and lifelong learning.

College level students are more mature than other pupils who are studying in lower levels of students. They will understand the importance of mobile learning and the worth of the study. Therefore, the researcher feels that particularly the college level students' opinions or their attitude towards mobile learning can never be ignored, rather those should be reviewed or re-explored time to time, it is this feeling that has urged this investigator to take up the present study on a particular region of West Bengal. It is expected that, this study through small, will be able to make some significant contributions in the field of education.

Statement of the Problem:

The problem for the present study may specifically stated as below-

“A study on attitude of college students towards mobile learning.”

REVIEW OF RELATED LITERATURE:

Sudakaran, T. & Pachaiyappan, P. (2017), have conducted a study on 'Attitude towards m-learning among prospective teachers'. The results showed that most of the B.Ed student teachers have moderate level of attitude towards m-learning.

Alhajri, R. (2016), has conducted a study on 'Prospects and challenges of mobile learning implementation: A case study'. He found that students' and instructors' attitude to mobile learning is welcoming and that the majority of the students and instructors believe that m-learning is appealing because it allows the freedom to learn wherever they want regardless of their gender, age or their educational institution.

Alfarani, L. (2015), has conducted a study to understand the influence on the adoption of mobile learning in Saudi women teachers in higher education. She found that although participants (educators) perceived m-learning to have the potential to enhance communication with students they identified technological, institutional, pedagogical and individual obstacles to the use of m-learning which had negative influence on mobile learning acceptance. The findings also revealed that resistance to change and perceived social culture are significant determinants of the current use of and the intention to use m-learning.

Another study was conducted by Nassoura, A.B. (2013), to examine students' acceptance of m-learning for higher education in Saudi Arabia. The author adopted a framework which is based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model to determine the factors that influence

the students' intention to use m-learning. The statistical results showed that a high level of students' acceptance for using m-learning.

Operational Definitions of Important Terms:

The operational definitions of the terms in this present study were-

1. Attitude:-

Travers (1973) - "An attitude is a respond in such a way that behaviour is given ascertain direction."
Meckeachie, W.J. and Doyel, C.L. (1966) - "We define an attitude as an organization of concepts, beliefs, habits and motives associated with a particular object."

Whilttaker, J.O. (1970) – "An attitude is a predisposition or readiness to respond in a predetermined manner to relevant stimuli."

2. Mobile learning:-

Wikipedia said that-"M-learning or mobile learning is learning across multiple contexts, through social and content interactions, using personal electronic devices."

John Traxler said that- "Mobile learning is any educational provision where the sole or dominant technologies are handheld or palmtop devices."

DELIMITATIONS OF THE STUDY:

(A) **Geographical Area:-** The investigation was delimited to only Bankura district of West Bengal.

(B) **Level of Education:-** The study was restricted to the college level students of Bankura district of West Bengal.

(C) **Type of Study:-** This study was conducted only at surface level, it was not an 'in-depth' study. Attempts to know the subjects attitude by administering an attitude scale constructed by the researcher herself. No college comparison was done. Only intra district comparison between the Government and Government-aided college students, Male and Female college students, Rural and Urban college students, Arts and Science stream college students, General and OBC college students, General and SC college students, General and ST college students were done.

OBJECTIVES OF THE STUDY:

1. To ascertain the attitude of college students towards Mobile Learning in Bankura district of West Bengal.
2. To find out the difference between Government and Government-aided college students' attitude towards Mobile Learning.
3. To find out the difference between Male and Female college students' attitude towards Mobile Learning.
4. To find out the difference between Rural and Urban college students' attitude towards Mobile Learning.
5. To find out the difference between Arts and Science college students' attitude towards Mobile Learning.
6. To find out the difference between General and OBC college students' attitude towards Mobile Learning.
7. To find out the difference between General and SC college students' attitude towards Mobile Learning.
8. To find out the difference between General and ST college students' attitude towards Mobile Learning.

HYPOTHESES OF THE STUDY:

H₁.The college students will have more favourable attitude towards Mobile Learning in Bankura district of West Bengal.

H₂.There is significant difference between Government and Government-aided college students' attitude towards Mobile Learning.

H₃. There is significant difference between Male and Female college students' attitude towards Mobile Learning.

H₄. There is significant difference between Rural and Urban college students' attitude towards Mobile Learning.

H₅. There is significant difference between Arts and Science college students' attitude towards Mobile Learning.

H₆. There is significant difference between General and OBC college students' attitude towards Mobile Learning.

H₇. There is significant difference between General and SC college students' attitude towards Mobile Learning.

H₈. There is significant difference between General and ST college students' attitude towards Mobile Learning.

METHODOLOGY OF THE STUDY:

Population of the Study: The college students of general degree colleges in Bankura district of West Bengal comprised the population of this study.

Sample and Sampling Procedure: 200 college students of general degree colleges in Bankura district of West Bengal were taken as representative sample for the whole population. Stratified random sampling technique was followed for selecting the students.

Table-1:

Types of college	N	Gender		Location		Stream		Caste			
		Male	Female	Rural	Urban	Arts	Science	General	OBC	SC	ST
Government college	50	25	25	22	28	30	20	22	14	8	6
Government aided college	150	75	75	86	64	90	60	88	30	19	13
Total	200	100	100	108	92	120	80	110	44	27	19

Variable of the Study:

- (1) Dependent variable :-
 - Attitude scale towards mobile learning
- (2) Independent variable:-
 - Type of college
 - Gender of student
 - Location of student
 - Academic Stream of student
 - Caste of student

Tool Used: An attitude scale (Likert Type) was used for knowing the attitude of college students towards mobile learning.

Statistical Technique Used: The mean, standard deviation and t-ratio techniques were used for analyzing the data.

Analysis and Interpretation of Data:

Testing of hypothesis:

H₁: The college students will have more favourable attitude towards Mobile Learning in Bankura district of West Bengal

Table-2: To ascertain the attitude of college students in Bankura district of West Bengal towards Mobile Learning.

Category	N	Mean	S.D
Student	200	83.60	11.19

Through the help of cut-off point we verify the H_1 . Here Cut-off Point is $M + 1\sigma$. It means, Mean = 83.60, N = 200 and $\sigma = 11.19$ Hence $M + 1\sigma$ is $83.60 + 1 \times 11.19 = 94.79$. And $M - 1\sigma = 83.60 - 11.19 = 72.41$. Most of the college student's (145 in number) i.e., 72.5 % of students were lies between 94.79 to 72.41 scores. Hence, it can be said that the attitude of college students in Bankura district of West Bengal is neither more favourable nor unfavourable towards Mobile Learning i.e., satisfactory or average in attitude towards Mobile Learning.

H_2 : There is significant difference between Government and Government-aided college students' attitude towards Mobile Learning.

Table-3:

Variable	N	Mean	S.D	ΣD^2	SE_D	df	t-value	Remark
Type of College								
Government College	50	85.18	9.92	4922.71	1.69	198	1.25	Not significant at 0.05 level
Government - aided college	150	83.07	11.44	19624.97				

It is inferred from the above table-3 that the calculated t- value (1.25) is lesser than the table value (1.96). It is indicated that the difference between the two variables is not significant at 0.05 levels. Hence, the H_{02} is accepted and the researcher H_2 is rejected. Thus, there is a no significant difference between Government and Government-aided college students' attitude towards Mobile Learning.

H_3 : There is significant difference between Male and Female college students' attitude towards Mobile Learning.

Table-4:

Variable	N	Mean	S.D	ΣD^2	SE_D	df	t-value	Remark
Gender								
Male	100	82.38	11.80	13917.12	1.55	198	1.57	Not significant at 0.05 level
Female	100	84.81	10.08	9807.68				

It is inferred from the above table-4 that the calculated t- value (1.57) is lesser than the table value (1.96). It is indicated that the difference between the two variables is not significant at 0.05 levels. Hence, the H_{03} is accepted and the researcher H_3 is rejected. Thus, there is no significant difference between Male and Female college students' attitude towards Mobile Learning.

H_4 : There is significant difference between Rural and Urban college students' attitude towards Mobile Learning.

Table-5:

Variable	N	Mean	S.D	ΣD^2	SE_D	df	t-value	Remark
Location								
Rural								Not significant

	108	84.16	10.00	10798.80	1.59	198	0.77	at 0.05 level
Urban	92	82.93	12.17	13630.09				

It is inferred from the above table-5 that the calculated t- value (0.77) is lesser than the table value (1.96). It is indicated that the difference between the two variables is not significant at 0.05 levels. Hence, the H_{04} is accepted and the researcher H_4 is rejected. Thus, there is no significant difference between Rural and Urban college students' attitude towards Mobile Learning.

H_5 . There is significant difference between Arts and Science college students' attitude towards Mobile Learning.

Table-6:

Variable	N	Mean	S.D	ΣD^2	SE_D	df	t-value	Remark
Gender								
Arts	120	85.75	11.00	14526.20	1.53	198	3.52	significant at 0.05 level
Science	80	80.36	10.28	8446.52				

It is inferred from the above table-6 that the calculated t- value (3.52) is greater than the table value (1.96). It is indicated that the difference between the two variables is significant at 0.05 levels. Hence, the researcher H_5 is accepted and the H_{05} is rejected. Thus, there is significant difference between Arts and Science college students' attitude towards Mobile Learning.

H_6 . There is significant difference between General and OBC college students' attitude towards Mobile Learning.

Table-7:

Variable	N	Mean	S.D	ΣD^2	SE_D	df	t-value	Remark
Caste								
General	110	83.67	11.75	15186.34	1.64	152	2.09	significant at 0.05 level
OBC	44	80.25	7.96	2790.14				

It is inferred from the above table-7 that the calculated t- value (2.09) is greater than the table value (1.96). It is indicated that the difference between the two variables is significant at 0.05 levels. Hence, the researcher H_6 is accepted and the H_{06} is rejected. Thus, there is significant difference between General and OBC college students' attitude towards Mobile Learning.

H_7 . There is significant difference between General and SC college students' attitude towards Mobile Learning.

Table-8:

Variable	N	Mean	S.D	ΣD^2	SE_D	df	t-value	Remark
Caste								
General	110	83.67	11.75	15186.34	2.62	135	0.62	Not significant at 0.05 level
SC	27	85.30	12.30	4081.63				

It is inferred from the above table-8 that the calculated t- value (0.62) is lesser than the table value (1.96). It is indicated that the difference between the two variables is not significant at 0.05 levels. Hence, the H_{07} is accepted and the researcher H_7 is rejected. Thus, there is no significant difference between General and SC college students' attitude towards Mobile Learning.

H_8 . There is significant difference between General and ST college students' attitude towards Mobile Learning.

Table-9:

Variable	N	Mean	S.D	$\sum D^2$	SE _D	df	t-value	Remark
Caste								
General	110	83.67	11.75	15186.34	2.20	127	2.18	significant at 0.05 level
ST	19	88.47	8.22	1284.72				

It is inferred from the above table-9 that the calculated t- value (2.18) is greater than the table value (1.96). It is indicated that the difference between the two variables is significant at 0.05 levels. Hence, the researcher H_7 is accepted and the H_{07} is rejected. Thus, there is significant difference between General and ST college students' attitude towards Mobile Learning.

MAJOR FINDINGS OF THE STUDY:

Analysis of data shows the important findings of the present study-

1. The attitude of college students in Bankura district of West Bengal is neither more favourable nor unfavourable towards Mobile Learning i.e. satisfactory or average in attitude towards Mobile Learning.
2. There is no significant difference between Government and Government-aided college students' attitude towards Mobile Learning.
3. There is no significant difference between Male and Female college students' attitude towards Mobile Learning.
4. There is no significant difference between Rural and Urban college students' attitude towards Mobile Learning.
5. There is significant difference between Arts and Science college students' attitude towards Mobile Learning. Arts stream college students have a better attitude towards Mobile Learning than that of Science Stream college students.
6. There is significant difference between General and OBC college students' attitude towards Mobile Learning. General category college students have a better attitude towards Mobile Learning than that of OBC category college students.
7. There is no significant difference between General and SC college students' attitude towards Mobile Learning.
8. There is significant difference between General and ST college students' attitude towards Mobile Learning. ST category college students have a better attitude towards Mobile Learning than that of General category college students

LIMITATION OF THE STUDY:

The present study has some limitations, those are as follows-

1. The present study was conducted only a surface level. It was not an intensive and 'in-depth' study.
2. The study was limited to the 200.
3. The study was conducted only in a particular district (Bankura) of West Bengal.
4. The study was conducted only at college level in the district of Bankura.
5. Attitude of the students was measured only through administration of an attitude scale constructed by the investigators.

SUGGESTION FOR FURTHER STUDIES:

1. Similar studies can be conducted by taking larger sample from other part of the country.
2. Similar studies can be done at various levels of education in India.
3. Similar studies can be undertaken in different state of India.
4. Similar studies can be done in different socio-economic status.
5. 'In-depth' students may be conducted in order to know real attitude of the subject. A team work may be required for the purpose.

EDUCATIONAL IMPLICATION OF THE STUDY:

1. The present study helps to understand student's attitude in mobile learning in West Bengal.
2. The present study may help to educational policy making as well as planning.
3. This study is very much essential for the development of student's interest, attitude, knowledge, motivation towards mobile learning.
4. This study is very much essential for students self development

CONCLUSION:

Mobile learning is a new learning landscape that offers opportunity for collaborative, personal, informal, and students' centered learning environment. The study notes that mobile devices usage has increased significantly among college students. As an integral part of student's daily lives, mobile technology has changed how they communicate, gather information allocate time and attention, and potentially how they learn. Mobile learning has many educational benefits that facilities the learning process, and most importantly its cheap, easy to obtain and the possibility of learning anywhere and anytime, and the speed if access to information, whether text or files. The present study revealed that the attitude of college students in Bankura district of West Bengal is neither more favourable nor unfavourable towards mobile learning i.e. satisfactory or average in attitude towards mobile learning.

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