

# Attitude of B.Ed. Student-Teachers' Towards Mobile Learning

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## ABSTRACT

*In the present study the investigators made an attempt to know the B.Ed. student-teachers attitude towards Mobile Learning in Purulia district of West Bengal. 180 B.Ed. Student-Teachers one Govt. Sponsored (50) and Five Self Financing / Private (130) (both Urban and Rural areas) affiliated to Sidho-Kanho-Birsha University in Purulia District of West Bengal were taken as representative sample of the whole population. For selecting the student-teachers stratified random sampling was adopted. An attitude scale was used for collecting the data. The means of both groups were tested for significance of difference by using t-test. The study revealed that the attitude of B.Ed. Student-Teachers in Purulia District of West Bengal is neither more favorable nor unfavorable towards Mobile Learning, satisfactory or average in attitude. The study also revealed that attitude of Male and Female General and SC as well as Govt. Sponsored and Private B.Ed. College B.Ed. student-teachers towards Mobile Learning differs significantly. On the other hand, attitude of Rural and Urban, Pre-Service and In-Service, General and ST, General and OBC, Govt. Sponsored and Private, Arts and Science B.Ed. student-teachers towards Mobile Learning did not differ significantly.*

**Keywords:** B.Ed. Student-Teachers, Attitude, Mobile Learning.

## INTRODUCTION:

Technology came into the existence a very long time, but in the 21<sup>st</sup> century, it started to expand rapidly. As a result the changes we can see in the world are still the best changes so far. The transformation and development of technology that not only improves our communication system but also makes our lifestyle a lot easier than never anybody can dream of. The unique invention of this technology is the mobile. We can't think of living life without mobile phones in the present day. In India, approximately every person seems to have one. This mobile can be seen from a rickshaw puller to a high trader. Nowadays mobile phone is not just used for communication, in addition, mobile phones allow people to access different types of content, and for example, weather update, news report, educational information, sports content, music videos and much more. Technological appliances are now very useful for higher education such as a laptop, desktop, mobile, tablet, phablet, note etc. As we know that mobile is very much used by students and they also used it for gathering information. Generally, it is easily accessible for everyone, because of the low price than other technological equipments and it can be easily moved anywhere. In this context, the mention of mobile learning is remarkable. M-learning (Mobile learning) can be defined as a learning pedagogy that related to education using mobile devices. It is a changing method of learning that is not time bound and makes learning easier than ever. M-Learning allows educational organizations to enlarge their educational opportunities beyond the limited boundaries of their classrooms right into the reading rooms of their learners. Mobile learning plays an important role in the rapid expansion of information. The special characteristic of Mobile Learning is providing the learners a flexibility of time and place. The major benefit of mobile learning is faultless interaction with different forms of media at the equivalent time. In the stage of education it predicts that Mobile learning is going to gain a paradigm shift, because of the changes in the approach, and the integration of technology into learning. This will mark a variation from the one-to-many approach that the teachers had gotten used to in the many years of their teaching experience. From the above discussion, we can say that the use of mobile learning in the world of education has not only improved education system but also bringing the evolution in the learning approaches. Finally, it can be said that not only will the students benefit from mobile learning but also every person in the society will be benefited who can choose it as a blessing in their life and interested to acquire new knowledge by themselves. Mobile learning also recognized as m-learning, in the modern educational system. "Mobile Learning", has diversified types of meanings for different areas, that refer to a division of E-Learning, educational technology and, correspondence education, that spotlights on learning with mobile devices. Mobile learning is measured to be the gift to use mobile devices to sustain teaching and learning. In a word, mobile learning is a process by which students can help themselves to learn.

**NEED AND SIGNIFICANCE OF THE STUDY:**

Today mobile phone has occupied the place like our daily necessities. It is essential for different types of works. In this context, it can be said that the efficiency of the mobile phone has increased due to fast internet connectivity. As its being small for that it can be taken anywhere, and easily collects a lot of information. Our education system has a specific time and it is not possible to answers all the questions of the students within this time period. Therefore, some places remain incomplete in education. In this condition, Mobile learning plays an important role in stimulating education among the students. Students can easily access these unknown questions or information as per their need. In this case, it can be said that the function of mobile phones in the absence of a teacher just like a guide. This results in a lot of self-reliance in students and they are spreading inspiration from the heart towards learning. Mobile Learning helps to learn anytime and anyplace, it is the most significant option of learning, it provides the quick reaction to the learner, it helps to study beyond a classroom, it helps the learner independent learning, etc. The B.Ed. student teachers are the future teacher of schools. So, in this study the investigators have attempted to measure the attitude of Student-teacher. It is expected that this study, though small, it will be able to make some significant contributions to the field of education.

**STATEMENT OF THE PROBLEM:**

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

“Attitude of B.Ed. Student-Teachers towards M-Learning”

**REVIEW OF RELATED LITERATURE:**

**El-Hussein, M. O. M., & Cronje, J. C. (2010)** have conducted a study on “Defining Mobile Learning in the Higher Education Landscape.” This study highlighted the concept relates to the mobility of the technology, the hinges on increased learner mobility and the third and last were examines the mobility and dynamism of the learning processes and the flow of information. **Mehdipour, Y; & H, Zerehkafi. (2013)** have conducted a study on “Mobile Learning for Education: Benefits and Challenges.” The objective of the study was that the state of mobile learning, benefits, challenges, and its barriers to support teaching and learning. The findings were that M-Learning as Distance learning brought great benefits to society. **Behera, S. (2013)** has carried out a study on “E- and M-learning: a comparative study.” This study highlighted the comparison of concept, characteristics, advantages, disadvantages, similarities, and differences between E-learning and M-learning. **Majeed, A. (2015)** has conducted a study on “Mobile learning and education.” The study highlighted in the analysis of mobile learning and education. **Elfeky, A.I.M., & Masadeh, T.S.Y. (2016)** have carried out a study on “The Effect of Mobile Learning on Students' Achievement and Conversational Skills.” The objective of the study was that to examine the effect of Mobile Learning, which is a kind of E-learning that uses mobile devices, on the development of the academic achievement and conversational skills of English language specialty students at Najran University. The finding was that mobile learning had quite significant effect on both students' academic achievement and conversational skills. **Kusum, F, & Behera, S.K. (2017)** have conducted a study on “Attitude of Post Graduate Students towards Mobile Learning.” The findings were that 1) the attitude of PG students of Sidho-Kanho-Birsha University in Purulia District of West Bengal, India is neither more favourable nor unfavourable towards mobile learning, 2) there is no significant difference between the attitude of PG male and female students of Sidho-Kanho-Birsha University in Purulia District towards mobile learning, 3) the attitude of PG rural students of Sidho-Kanho-Birsha University in Purulia District towards mobile learning is slightly favorable than that of PG urban students, 4) the attitude of PG Arts students is comparatively more favorable than the PG Science students towards mobile learning, 5) there is no significant difference between the attitude of PG General students and PG SC/ST (Scheduled Castes/Scheduled Tribes) students, 6) there is no significant difference between the attitude of PG 2nd and P.G. 4th Semester students of SKB University in Purulia District. **Khalil, A (2017)** has conducted a study on “Mobile learning – an alternative approach in higher education.” This study highlighted to the following issues: mobile learning and higher education. **Reham, A. A. & Arshad, M.R.M. (2018)** have carried out a study on “Empirical Analysis on Factors Impacting Intention to use M-Learning in Basis Education in Egypt.” The objectives of the study were to come up with the development and examination towards a research model to uncover the factors that have important effects on the intention to use mobile learning for basic education in Egypt. The findings of the study were 1) content quality design affected both effort expectancy and performance expectancy of m-learning, 2) the relationship between learners' autonomy and behavioural intention is strongly significant, learners' autonomy has the highest path-coefficient with behavioural intention to use m-learning, which causes us to conclude that the learners' autonomy has a

strong significant effect on behavioural intention to use m-learning. Higher levels of autonomy allow increasing the intention of the learners to use m-learning, 3) the effort expectancy is deemed as an insignificant factor in this study. It is believed that the reason being is the lack of user-friendliness and comfortable design of the system, 4) the Social Influence is considered to have a positive effect that can increase the intention of the learners to use m-learning, 5) Facilitating conditions was found to be significant on intention to use m-learning; accordingly.

#### **DELIMITATIONS OF THE STUDY:**

The delimitations of the present study are as follows:

##### **(A) Geographical Area:**

The investigation was delimited to only Purulia district of West Bengal.

##### **(B) Level of Education:**

(i) The study was restricted to the student-teachers in B.Ed. colleges of the said district.

(ii) The B.Ed. student-teachers in regular mode (Academic Session: 2016-18) of Govt. Sponsored and Private / Self-financing B.Ed. training colleges affiliated to Sidho-Kanho-Birsha University in Purulia district were considered as the subjects of the present study.

##### **(C) Type of Study:**

This study was conducted only at surface level. It was not an 'in-depth' study. Attempt to know the subject's attitude by administering an attitude scale constructed by the researchers. No inter-state comparison was done. Only intra- district comparison between the male and female, General and SC, General and ST, General and OBC, rural and urban, Pre and In service, Govt. Sponsored and Private colleges, Arts and science student-teachers were done.

#### **OBJECTIVES OF THE STUDY:**

1. To ascertain the attitude of B.Ed. College Student-Teachers in Purulia district of West Bengal towards M-learning.
2. To find out the difference between Male and Female B.Ed. College Student- Teachers in respect of their attitude towards M-Learning.
3. To find out the difference between Rural and Urban B.Ed. College Student- Teachers in respect of their attitude towards M-Learning.
4. To find out the difference between Pre-service and In-service B.Ed. College Student- Teachers in respect of their attitude towards M-Learning.
5. To find out the difference between General and SC B.Ed. College Student- Teachers in respect of their attitude towards M-Learning.
6. To find out the difference between General and ST B.Ed. College Student- Teachers in respect of their attitude towards M-Learning.
7. To find out the difference between General and OBC B.Ed. College Student- Teachers in respect of their attitude towards M-Learning.
8. To find out the difference between Govt. Sponsored and Private B.Ed. College Student- Teachers in respect of their attitude towards M-Learning.
9. To fine out the difference between Arts and Science B.Ed. College Student-Teacher in respect of their attitude towards M-Learning.

#### **HYPOTHESES OF THE STUDY:**

The hypotheses were formulated in null form:

**H<sub>01</sub>:** There will have more unfavourable attitude of B.Ed. College Student-Teachers in Purulia district of West Bengal towards M-learning.

**H<sub>02</sub>:** There is no significant difference between Male and Female B.Ed. College Student-Teachers in respect of their attitude towards M-Learning.

**H<sub>03</sub>:** There is no significant difference between Rural and Urban B.Ed. College Student-Teachers in respect of their attitude towards M-Learning.

**H<sub>04</sub>:** There is no significant difference between Pre-service and In-service B.Ed. College Student-Teachers in respect of their attitude towards M-Learning.

**H<sub>05</sub>:** There is no significant difference between General and SC B.Ed. College Student-Teachers in respect of their attitude towards M-Learning.

**H<sub>06</sub>:** There is no significant difference between General and ST B.Ed. College Student-Teachers in respect of their attitude towards M-Learning.

**H<sub>07</sub>:** There is no significant difference between General and OBC B.Ed. College Student-Teachers in respect of their attitude towards M-Learning.

**H<sub>08</sub>:** There is no significant difference between Govt. Sponsored and Private B.Ed. College Student-teachers in respect of their attitude towards M-Learning.

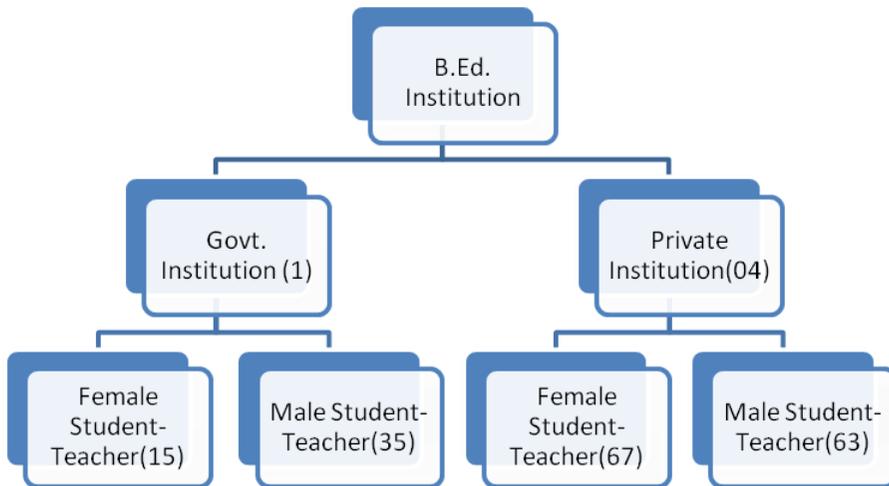
**H<sub>09</sub>:** There is no significant difference between Arts and Science B.Ed. College Student-Teachers in respect of their attitude towards M-Learning.

**POPULATION OF THE STUDY**

The B.Ed. College Student-Teachers of Purulia district of West Bengal comprised the population of this study.

**SAMPLE AND SAMPLING PROCEDURE:**

180 Student-Teachers of one Govt. Sponsored (50) and Five Self Financing / Private (130) B.Ed. Colleges (both Urban and Rural areas) affiliated to Sidho-Kanho-Birsha University in Purulia District of West Bengal were taken as representative sample of the whole population. Purposive sampling technique was adopted for selecting the B.Ed. Colleges. For selecting the student-teachers stratified random sampling was adopted. The detailed category wise breakup of the samples is as follows:



- 98 Male and 82 Female B.Ed. student-Teachers = 180
- 154 Pre-Service and 26 In-service student-Teachers = 180
- 84 General, 32 SC, 10 ST and 54 OBC B.Ed. student-Teachers = 180

**TOOL USED:**

An Attitude Scale (Likert Type) was used for knowing the attitude of B.Ed. College Student-Teachers towards E-learning.

**STATISTICAL TECHNIQUE:**

Percentage, Mean, SD, & t- tests were used to analyze the collected data. T-tests were used to verify the hypotheses.

**RESULTS AND DISCUSSION:**

**Testing of H<sub>01</sub>**

There will have more unfavourable attitude of B.Ed. College Student-Teachers of Purulia district of West Bengal towards E-learning.

Category	N	Mean	S.D
B.Ed. Student- Teachers	180	98.61	10.78

Through the help of cut-off point H<sub>1</sub> was verified. Here Cut-off Point is  $M \pm 1\sigma$ . It means, Mean=98.61, and  $\sigma=10.78$ . Hence  $M + 1 \sigma$  is  $98.61 + 1 \times 10.78 = 109.39$ . And  $M - 1 \sigma = 98.61 - 1 \times 10.78 = 87.83$ . Most of B.Ed. Student-Teachers (128 in number) i.e., 71.11 % were lies between-87.83-109.39 scores. Hence, it can be said that the attitude of B.Ed. Student-Teachers towards M-learning in Purulia District of West Bengal is Moderate / Average.

**Table-1:** The attitude of B.Ed. Student-Teachers in Purulia District of West Bengal towards M-learning.

Scores	Frequency	Percentage	Levels of Attitude
Above-109.39	30	16.67 %	Favaourble
Between-87.83-109.39	128	71.11 %	Moderate / Average
Below-87.83	22	12.22 %	Unfavourable
<b>TOTAL</b>	<b>180</b>	<b>100 %</b>	

**Table-2:** Showing significant differences between variables

Groups		N	Mean	SD	€D <sup>2</sup>	S <sub>ED</sub>	df	t	Remark
Gender	Male	98	100.6	10.68	11187.63	1.59	178	2.34	0.05 level Significant
	Female	82	96.88	10.64	9288.78				
Location	Rural	130	98.94	11.37	16795.51	1.88	178	0.63	@
	Urban	50	97.76	09.04	4083.12				
Types of Training	Pre-Service	154	98.79	10.81	17991.93	2.39	178	0.51	@
	In-Service	26	97.58	10.57	2904.35				
Caste	General	84	96.87	09.13	7009.56	1.91	114	2.64	Both level Significant
	SC	32	101.91	09.77	3054.72				
Caste	General	84	96.87	09.13	7009.56	3.35	92	1.38	@
	ST	10	101.5	15.34	2354.5				
Caste	General	84	96.87	09.13	7009.56	1.76	136	1.11	@
	OBC	54	98.83	12.04	7821.50				
Type of Colleges	Govt. Sponsored	50	97.76	09.04	4083.12	1.80	178	0.66	@
	Private	130	98.94	11.37	16795.51				
Stream	Arts	120	98.45	11.03	14611.7	1.77	178	0.27	@
	Science	60	98.93	10.25	6307.73				

@ Not Significant

**Testing of H<sub>02</sub>**

From the table-2, it is found that the calculated ‘t’ value (‘t’=02.34) is less than the table value at 0.01 and more than 0.05 level of significance (2.61 at 0.01 & 1.98 at 0.05 level of significance). Therefore, the result is 0.05 level is significant. Hence, the H<sub>02</sub> is rejected and the researcher’s H<sub>2</sub> is accepted; that is to say that, there is significant difference between Male and Female B.Ed. College Student-Teachers in respect of their attitude towards E-Learning.

**Testing of H<sub>03</sub>**

From the table-2, it is found that the calculated ‘t’ value (‘t’=0.63) is less than the table value at both 0.01 and 0.05 level of significance (2.61 at 0.01 & 1.98 at 0.05 level of significance). Hence, the H<sub>03</sub> is accepted and the researcher’s H<sub>3</sub> is rejected; that is to say that, there is no significant difference between Rural and Urban B.Ed. College Student- teachers in respect of their attitude towards M-Learning.

**Testing of H<sub>04</sub>**

From the table-2, it is found that the calculated ‘t’ value (‘t’=0.51) is less than the table value at both 0.01 and 0.05 level of significance (2.61 at 0.01 & 1.98 at 0.05 level of significance). Hence, the H<sub>04</sub> is accepted and the researcher’s H<sub>4</sub> is rejected; that is to say that, there is no significant difference between Pre-service and In-service B.Ed. College Student- Teachers in respect of their attitude towards E-Learning.

**Testing of H<sub>05</sub>**

From the table-2, it is found that the calculated 't' value ( $t=2.64$ ) is more than the table value at both 0.01 and 0.05 level of significance (2.63 at 0.01 & 1.98 at 0.05 level of significance). Therefore, the result is significant and it is indicated that, the difference between the two groups is significant at 0.01 level and 0.05 level. Hence, the H<sub>05</sub> is rejected and the researcher's H<sub>5</sub> is accepted; that is to say that, there is significant difference between General and SC B.Ed. Student- teachers in respect of their attitude towards M-Learning.

**Testing of H<sub>06</sub>**

From the table-2, it is found that the calculated 't' value ( $t=1.38$ ) is less than the table value at both 0.01 and 0.05 level of significance (2.63 at 0.01 & 1.98 at 0.05 level of significance). Therefore, the result is not significant. Hence, the H<sub>06</sub> is accepted and the researcher's H<sub>6</sub> is rejected; that is to say that, there is no significant difference between General and ST B.Ed. College Student- Teachers in respect of their attitude towards M-Learning.

**Testing of H<sub>07</sub>**

From the table-2, it is found that the calculated 't' value ( $t=1.11$ ) is less than the table value at both 0.01 and 0.05 level of significance (2.62 at 0.01 & 1.98 at 0.05 level of significance). It is indicated that, the difference between the two groups is not significant at 0.01 level and 0.05 level. Hence, the H<sub>07</sub> is accepted and the researcher's H<sub>7</sub> is rejected; that is to say that, there is no significant difference between General and OBC B.Ed. College Student- Teachers in respect of their attitude towards M-Learning.

**Testing of H<sub>08</sub>**

From the table-2, it is found that the calculated 't' value ( $t=0.66$ ) is less than the table value at both 0.01 and 0.05 level of significance (2.61 at 0.01 & 1.98 at 0.05 level of significance). It is indicated that, the difference between the two groups is not significant at 0.01 level and 0.05 level. Hence, the H<sub>08</sub> is accepted and the researcher's H<sub>8</sub> is rejected; that is to say that, there is no significant difference between Govt. Sponsored and Private B.Ed. college student- teachers in respect of their attitude towards M-Learning.

**Testing of H<sub>09</sub>**

From the table-2, it is found that the calculated 't' value ( $t=0.27$ ) is less than the table value at both 0.01 and 0.05 level of significance (2.61 at 0.01 & 1.98 at 0.05 level of significance). Therefore, the result is not significant and it is indicated that, the difference between the two groups is not significant at 0.01 level and 0.05 level. Hence, the H<sub>09</sub> is accepted and the researcher's H<sub>9</sub> is rejected; that is to say that, there is no significant difference between Arts and Science B.Ed. College Student-Teacher in respect of their attitude towards M-Learning.

**LIMITATIONS OF THE STUDY:**

Though a thorough and sincere investigation has been attempted, the present investigation has some limitations, those are as follows:

1. The present study was conducted only at surface level. It was not an extensive and "in depth" study.
2. This study was conducted only in a particular district (Purulia) of West Bengal.
3. Attitude of the B.Ed. student-teachers were measured only through administration of an attitude scale constructed by the investigators.

**EDUCATIONAL IMPLICATIONS:**

1. It is a humble attempt in this direction to assess the level of knowledge and attitude of student-teachers towards M-learning.
2. This study contributes a new teaching-learning in the form of assessing the level of knowledge and attitude towards M-learning in the classroom instruction.
3. This study is very much essential for the development of student-teachers interest, attitude, knowledge, motivation towards M-learning.
4. This study is very much essential for development of professional efficiency and quality education of school teachers.
5. The need of the day is to make teachers realize their capabilities and improve upon capabilities to help solve the problems of their life through M-learning.
6. Special efforts should be made in order to develop M-learning awareness among the B.Ed. Student-Teachers.
7. This study will be of immense use for the educational administrators, which will throw light upon the attitude of Student- Teachers' of all level of education.

**CONCLUSION:**

In this 21<sup>st</sup> century, Mobile learning has gained worldwide popularity with the progress of information and communication technologies. The contribution to the education of Mobile learning is beyond the dream. The importance of mobile learning in education is very essential for exploring the education system. From the above study, we knew that the students are very much interested in using mobile as a learning object. The study revealed that there was a significant difference between the male and female students in attitude towards mobile learning; there was a significant difference between the General and SC students in attitude towards mobile learning. So, from the above discussion, it can be said that mobile learning is not only the innovation of the learning methods in education but also will be the revolution of the future education system.

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