M-LEARNING COMPETENCY AND ADEQUACY OF HIGHER EDUCATION STUDENTS TO ADOPT MOBILE LEARNING APPROACHES

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ABSTRACT
Nowadays, mobile technologies have become more widely used in various industries, including accounting, business, travel, entertainment, sport, marketing etc. As a result of these advancements, mobile technologies are now being used for educational reasons. This study aimed to examine the M-Learning competency and Adequacy of higher education students to adopt mobile learning approaches. The research data for the analysis came from a sample of 150 students from Dayalbagh Educational Institute. The study concluded that students have enough potential to adopt mobile learning approach. Engineering Students were found to be more competent in adopting mobile learning approaches.
Keywords: Mobile Learning, Competency, Adequacy, Mobile Learning Approaches

INTRODUCTION
Developments in digital technology have created many new possibilities for educational delivery. Mobile technologies provide flexibility in learning; it includes anytime-anywhere digital resources which extend the reach of learning beyond the classroom walls. Because of the flexibility of mobile technology, the notion of mobile learning (or m-learning) has emerged (Sharples, 2000). It allows us to access and apply learning information regardless of time, geography, or location. Mobile Devices such as laptops, personal computers (PCs) and smartphones are now widely used for interrogation, data recovery, and data acquisition. Cell phones and their features (such as accessing the Internet or exchanging information) are increasingly used for educational reasons. The turn of events and evaluation of instructional settings for appropriate learning workouts inside and outside the study hall is being aided by portable innovations. Recently it has become so common to see people using smartphones, tablet or computers to access the information fron the internet, playing games, listen to music, or to watch movies at any time; this is equally true in official and informal teaching-learning situations.

Mobile devices are especially useful for storing data or accessing information from course materials, e-books, and other sources (Sarrab, 2015). In addition to consuming material, mobile devices and applications allow users to search, find, and even create it. As a result, these technologies are altering how we access and utilize information, as well as how we learn. The importance of mobile learning in students' academic lives is growing, and a thorough examination of stakeholders' attitudes and perceptions (instructors, learners, and institutions) reveals useful suggestions for the design, development, and management of mobile technology integration into teaching and learning environments as a powerful means of achieving the goals. Mobile devices may be utilized for various learning activities, allowing students to connect different forms of learning. For instance:

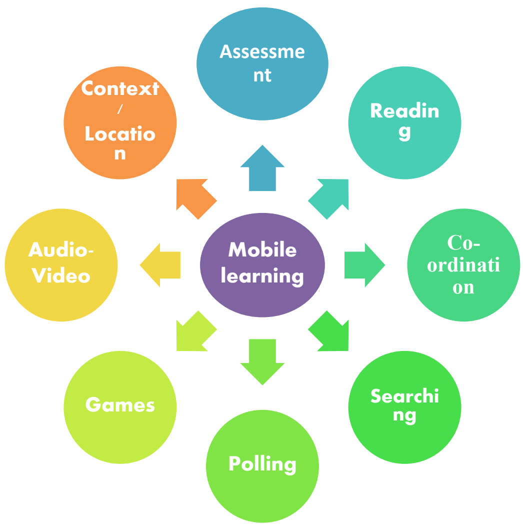

Fig 1: Mobile Devices as a Means for Learning

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OBJECTIVES OF THE STUDY
The research aims to accomplish the following objectives:
1. Study of M-learning Competency of Different Streams to adopt Mobile Learning Approaches at Higher Education Level.
2. Comparison of M-learning Competency of Different Streams to adopt Mobile Learning Approaches at Higher Education Level.
3. Study of M-learning Adequacy of Different Streams to adopt Mobile Learning Approaches at Higher Education Level.
4. Comparison of M-learning Adequacy of Different Streams to adopt Mobile Learning Approaches at Higher Education Level.

METHODOLOGY
This study employed a descriptive survey approach. The sample for the paper included 150 undergraduate students from various faculties of Dayalbagh Educational Institute in Agra. The selection of students was made with the Purposive Incidental Sampling Method. The researcher has created two 5-point rating measures to assess and compare undergraduate students' M-learning Competency and M-learning Adequacy of higher education students. The data were analyzed through the following statistical techniques: means, standard deviations t-test, and Kruskal-Wallis test. The information gathered was examined quantitatively and subjectively. Following the scoring technique,'t'-values were used to determine the significance of differences between the study's variables. Kruskal-Wallis Test was applied to determine the association between distinct variables.

RESULTS AND DISCUSSION
To fulfil the objectives of the study and to test the hypotheses, the researcher has applied various statistical techniques to the collected data. In order to validate the objectives and to test the null hypotheses, the current research has been assessed as follows:

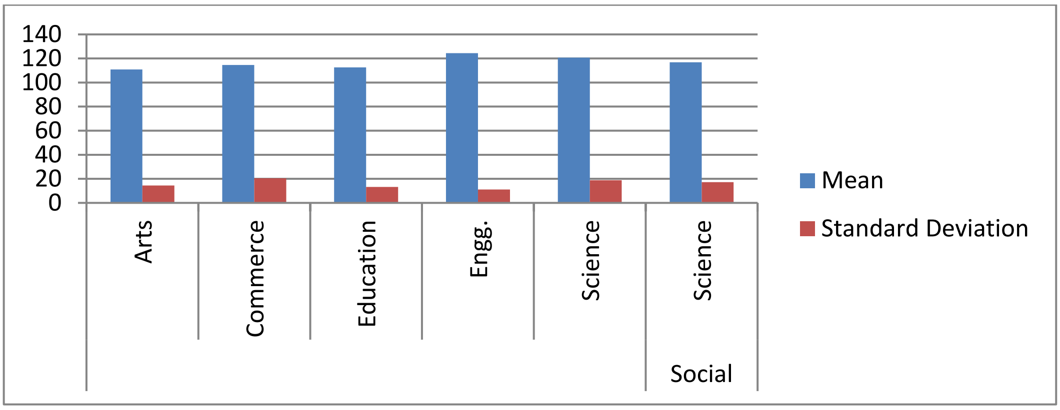
Study of M-Learning Competency of Different Streams to Adopt Mobile Learning Approaches at Higher Education Level
To Compare the M-learning Competency of Students of different Streams to see whether they are ready to adopt mobile learning approaches at the higher education level, some descriptive and inferential statistics are used:

Table 1: Descriptive Statistics for comparison of scores of students of different streams

	Arts	Commerce	Education	Engineering	Science	Social Sc.
Mean	110.85	114.59	112.64	124.40	120.68	116.84
S.D	14.49	20.42	13.28	11.14	18.86	17.21

Table 1: Mean and Standard Deviation of Students of Different Streams

A graphical representation of the Mean and Standard Deviation of students of different streams is shown in the following figure:



Graph 1: Graphical Representation of Comparison of the M-Learning Competency of Students of Different Streams

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Scores of Students in the Engineering and Science Streams are found to be higher than that of the other four streams. The mean scores of Engineering Students are 124.40, whereas the Standard Deviation of scores of Engineering Students is 11.14, which is the lowest of the Standard Deviation of scores of students of other streams. Having the greatest mean and lowest standard deviation clearly indicates that engineering students are more competent to adopt mobile learning at the higher education level. These findings indicate that the students of different streams differ regarding their M-Learning Competency for adopting mobile learning at the higher education level. But is this difference really significant? To find it out, Kruskal-Wallis Test was employed. The calculated K value was 18.696, which is greater than the table value with 4 degrees of freedom at 0.05 significance level. The findings suggest that the students of different streams don't possess the same degree of M-Learning Competency for the adoption of mobile learning approaches at the higher education level, which may be the result of a stream of study, individual differences, family environment and opportunities etc.

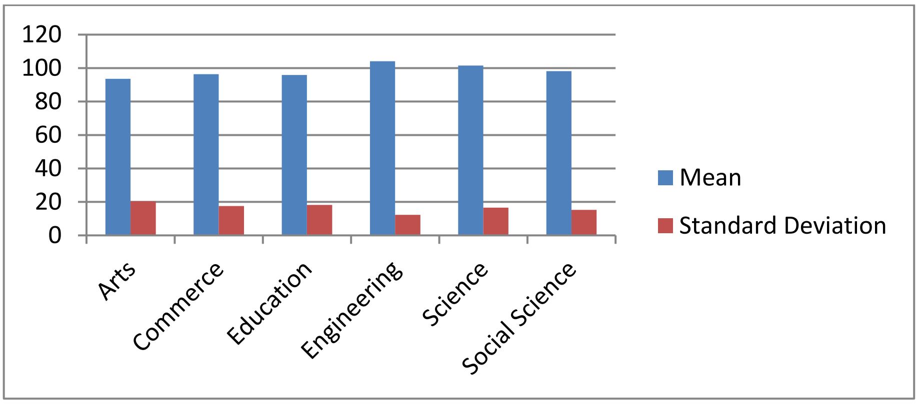
Study of M-Learning Adequacy of Different Streams to Adopt Mobile Learning Approaches at Higher Education Level

To Compare the M-learning Competency of Students of different Streams to see whether they are ready to adopt mobile learning approaches at the higher education level, some descriptive and inferential statistics are used:

Table 2: Descriptive Statistics for Comparison of Scores of Students of Different Streams

	Arts	Commerce	Education	Engineering	Science	Social Sc.
M	93.62	96.32	95.84	104.12	101.52	98.21
S.D	20.36	17.54	18.25	12.25	16.63	15.26

The perusal of the table indicates the mean and the standard deviations of the scores of different students. The distribution of their scores can be represented through the graph:



Graph 2: Graphical Representation of Comparison of the M-Learning Adequacy of Students of Different Streams

The mean scores of Engineering students are 104.12. In contrast, the Standard Deviation of scores of the Engineering students is 12.25, which is the lowest of the Standard Deviations of scores of students of other streams. Having the greatest Mean and lowest Standard Deviation clearly indicates that Engineering Faculty students are more competent to adopt Mobile Learning Approaches at Higher Education Level. These findings indicate that the students of different streams differ regarding their M-Learning Adequacy for the adoption of mobile learning at the higher education level. But is this difference really significant? To find it out, Kruskal-Wallis Test was employed. The calculated K value was 15.542, which is greater than the table value with 3 degrees of freedom at 0.05 significance level. The findings suggest that students of different streams don't possess the same degree of M-Learning Adequacy for the adoption of mobile learning approaches at the higher education level.

CONCLUSION

The findings of the present paper state that there exists a significant difference exists in the degree of M-Learning Competency of the students of different streams for the adoption of mobile learning approaches at the higher education level. The findings of the present study also state that a significant difference exists in the degree of M-Learning Adequacy of the students of different streams for the adoption of mobile learning approaches at the higher education level. It was found that the students of different faculties do not possess the same degree of M-Learning Competency and Adequacy to Adopt Mobile Learning Approaches at the Higher Education Level. A significant difference is found among them regarding M-Learning Competency and Adequacy to adopt Mobile Learning Approaches, which may result from their streams of study, individual differences, family environment and opportunities etc. The Mean Scores of Engineering Faculty Students are found to be highest than that of other than the four streams relative to their M-Learning Competency and M- Learning Adequacy.

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