USE OF MOBILE TECHNOLOGIES IN E-EVALUATION: STUDENTS' PERSPECTIVE WITH SPECIAL REFERENCE TO COIMBATORE CITY

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Abstract

In the age of educational technology, mobile learning, or M-learning, is a new wave that offers learners and educators options for informal, personal, voluntary, and contextual learning. Because of its various properties, including portability, interaction, adaptability, and ubiquity, mobile-based assessment is one of the developing technologies that spurs academic interest in examining its efficacy. It was determined from the reviewed literature that there is a dearth of research on students' opinions regarding the use of mobile devices in the context of e-Evaluation. The goal of the current study is to find out how students feel about using mobile devices in the instructor e-assessment system. The information was gathered using a well-structured questionnaire. There are 250 students participated in total. Findings indicated that 100% of the students own a mobile phone or tablet. Moreover, results indicated a statistically significant difference among the students' attitudes in terms of their gender where the differences were in favour of male students. In contrast, results revealed no statistically significant differences among the students' attitudes in terms of their age, degree, curriculum and department.

Key words- Mobile learning, portability, interactivity, e- evaluation.

Introduction

M-learning encourages both individualized and cooperative learning experiences and offers options to students who find formal learning techniques uncomfortable or inconvenient. M-learning systems are excellent for helping students complete their education, but researchers found that if these systems were to be designed using a more methodical approach, they may be improved even further to produce better outcomes. Therefore, creating solutions that could support mobile learning processes is crucial.

Due to the increased use of PDAs and cell phones, it is imperative to obtain information regarding the assessments conducted using these devices. The use of mobile devices in various industries—including higher education—has been the subject of an increasing number of research papers in recent years. M-learning has a significant impact on academics' efforts to build a strong educational infrastructure in addition to students. The use of mobile devices in the classroom gives rise to a new kind of learning known as m-learning. M-learning facilitates a range of aspects, including technological mobility, student mobility, educator mobility, and learning mobility.

As Web-based course delivery methods gain traction in higher education, a growing number of academics and curriculum designers are re-examining different course components. Under the pedagogical microscope are learning activities, course outcomes, assessment tasks, communication strategies, and evaluation instruments. Universities throughout the world are debating the merits of the new online, computerized learning environment that has permeated and perhaps come to define many of our educational institutions.

Lecturer pedagogies are expanding to embrace a more eclectic range of teaching and learning tactics as we move into an era where flexibly delivered courses of study are no longer limited to the use of printed and mailed material (Peat, 2000). This study examines the ways in which computer and internet technology has influenced the creation of assessment problems, as opposed to contrasting the "new" and "old" methods of delivering courses. According to Hofer & Pintrich (1997), "current shifts in educational thinking toward a constructivist approach" frequently influence the design of these kinds of assignments.

Many of these constructivist learning theories stem from constructivist philosophical ideas, which emphasize the value of the learner and seek to provide chances for students to participate actively in the educational process. Evaluation tasks are characterized as authentic in these circumstances because they are "derived from and simulate real life' (or authentic) conditions or situations" (Berns & Erickson, 2001). Based on this theoretical framework, knowledge is perceived as a process of creation rather than a compilation of facts. The teacher engages with the student based on the premise that learning is an active process in which the student constructs meaning, not information that is taught (Biggs & Moore, 1993).

Literature Reviews

Nicole, A. et al. (2006) stated that a thorough examination has demonstrated the significance of assessing student outcomes as well as the vital function that e-learning and technology can play in an assessment program as a whole. Technology should be a major factor in our efforts to assess instruction and learning outcomes and to inform the decisions that aim to improve educational effectiveness, given the increasingly important and dependent role that technology plays in human productivity and knowledge acquisition. The most crucial

lesson gained is that assessment programs are time-consuming endeavours that call for preparation and foresight, even while technology makes assessment easier and e-assessment has been recognized as a best practice. Support from the administrative and institutional levels is necessary for effectiveness, as is a long-term sustainability plan that takes technology readiness into account.

Gikandi, J.W. at al (2011) postulated that since online and blended learning are now commonplace tactics in higher education, teachers must rethink the core concepts of instruction, learning, and evaluation in non-traditional settings. These concerns include understanding how formative assessment works within online and blended learning, as well as validity and reliability of assessments in online contexts in regard to fulfilling the intended aims. The main conclusions were that formative feedback from formative assessments and increased learner engagement with worthwhile learning experiences can promote a learner- and assessment-centered emphasis. Within the context of online formative assessment, ongoing authentic assessment activities and interactive formative feedback were shown to be crucial features that can address risks to validity and reliability.

Baleni, Z. (2015) concluded that well-executed online formative assessment can enhance student commitment with worthwhile learning experiences and foster a student-centered assessment emphasis through formative feedback. In the context of online formative assessment, ongoing reliable assessment tasks and interactive formative feedback were found to be important components that will address concerns about rationality and reliability.

Holmes, N. (2015) highlighted that in higher education, student involvement is a crucial concern that is linked to the calibre of the student experience. One strategy to improve quality at a university is to increase student participation. One of the many ways an institution can impact student involvement is through curriculum design. An optional level 5 (second year) undergraduate geography curriculum saw an increase in student engagement due to the implementation of a low-stakes continuous weekly summative e-assessment. Students believed that this assessment method was directly responsible for their improved engagement. It was also discovered that students believed the continuous assessment had helped them learn more, especially in the area of understanding. According to this study, well thought-out assessments can be utilized to boost learning and student engagement, which will enhance the standard of the entire educational experience.

Guangul, F.M.(2020) argued that Academic dishonesty, infrastructure, covering learning outcomes, and student commitment to submit assessments were the primary issues with remote assessment that were found. It was discovered that the greatest strategy for reducing academic dishonesty was to prepare distinct questions for every student. Another effective way to prevent infractions of academic integrity was discovered to be through online presentations. Combining different assessment techniques, such as submitting a report along with an online presentation, can reduce academic dishonesty since it gives the examiner an opportunity to verify that the work supplied actually belongs to the student.

Statement of the Problem

With the use of the Internet, instructors are distributing to their students their syllabus, course materials, announcements, assignments, and evaluations using online platforms. Due to the rise in mobile phone usage, mobile learning has become essential in the educational sector. The development of wireless and mobile communication technology has sparked a growing body of research on M-learning, which allows students to study without being limited by location or time. Teachers may easily mark students' papers automatically via e-assessment, and students can receive their results right away. This study aims to explore students' attitude regarding the use of mobile devices in the instructor's e-assessment program.

Objectives of the study
The objectives of the study are:
1. To analyse students' attitude towards mobile technology usage.
2. To investigate students' demographic factors i.e. gender and age towards the use of mobile technologies.
3. To examine students' attitude towards use of e-Evaluation system.

Research Methodology
(a) Sources of data: Primary data has been collected through Structured Questionnaire.

A questionnaire was designed and distributed among the students. It consists of two sections. The first section includes the demographic data of the participants in addition to their mobile technology usage. The second section represent the students' attitudes toward the use of mobile technology in the e-Evaluation system. A five-point Likert Scale with Strongly disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5) has been used to measure the items.

(b) Sample Size: 250 samples have been collected from college students- Under Graduate and Post Graduate both for the purpose of the study.

(c) Period of study: Six months i.e. From July 2023 to December 2023.

(d) Area- Study is confined to Coimbatore City of Tamil Nadu, India.

(e) Research Hypotheses:
For carrying out the study as per the objectives, five research hypotheses have been framed: -

H01: There is no significant difference among the students' attitudes towards the use of mobile technologies for e-Evaluation in terms of gender.

H02: There is no significant difference among the students' attitudes towards the use of mobile technologies for e-Evaluation in terms of age.

H03: There is no significant difference among the students' attitudes towards the use of mobile technologies for e-Evaluation in terms of degree.

H04: There is no significant difference among the students' attitudes towards the use of mobile technologies for e-Evaluation in terms of curriculum.

H05: There is no significant difference among the students' attitudes towards the use of mobile technologies for e-Evaluation in terms of department.

Findings

The findings showed that whereas the remaining participants were all male, 61.6% of them were female. Furthermore, the age range of 75.4% of the participants falls between 18 and 22 years old. 47.68% of participants are students in the department of commerce. In terms of degree, bachelor's degree holders make up 68.96% of the participants.

Result revealed that 100% of the participants owned a mobile phone or tablet. These findings verified students' strong enthusiasm in using mobile technologies to complete their assignments. Furthermore, the findings showed that by the conclusion of the semester, 96% of the students were using their mobile devices to rate their teachers. The analysis for each research hypothesis is displayed in the following way:-

H01: There is no significant difference among the students' attitudes towards the use of mobile technologies for e-Evaluation in terms of gender.

To determine whether there were any statistically significant differences between the students' opinions regarding the use of mobile technology (smartphones and tablets) for evaluating their teachers based on their gender, an independent sample t-test was conducted.

Table 1: Differences among the students' attitudes with regard to Gender

Gender	N	Mean	Std. Dev.	t	df	Sig.
Male	96	3.8797	0.87339	4.897	248	0.034
Female	154	3.6714	0.99751			

According to Table 1, results showed a statistically significant difference among the students with regard to their gender ($p = 0.033$, $p <= 0.05$). This difference was in favour of male students.

The study calculated the means and standard deviations for each age group of students in order to examine whether there were any significant differences in the students' attitude about using mobile devices, such as smartphones and tablets, to evaluate their teachers based on the students' age, degree, curriculum and department. In addition, a one-way analysis of variance (ANOVA) has been performed to ascertain whether the mean values differ in any way that is statistically significant.

H02: There is no significant difference among the students' attitudes towards the use of mobile technologies for e-Evaluation in terms of age.

Table 2: ANOVA result for students' attitude with regard to Age

	Sum of Squares	df	Mean Square	F	Sig.
Between Group	1.482	3	0.4940	0.501	0.684
Within Group	242.590	246	0.9861		
Total	244.072	249			

Table 2 presents findings, which show that the students' attitudes regarding their age did not change statistically significantly ($p = 0.684$, $p > 0.05$). The F-score that was estimated was 0.501. These findings may be explained by the fact that students of all ages are very driven to use their mobile devices to rate their teachers.

Table 3: ANOVA result for students' attitude with regard to Degree

	Sum of Squares	df	Mean Square	F	Sig.
Between Group	1.486	1	1.486	1.519	0.348
Within Group	242.586	248	0.9781		
Total	244.072	249			

According to Table 3, results revealed that there were no statistically significant differences ($p = 0.348$, $p > 0.05$) among the students' attitudes in terms of their degree and the computed F-score is (1.519). These findings could be explained by the fact that all students, regardless of degree programs, are aware of the college's e-Evaluation system and how to use it with mobile devices.

Table 4: ANOVA result for students' attitude with regard to Curriculum

	Sum of Squares	df	Mean Square	F	Sig.
Between Group	3.598	3	1.993	1.226	0.296
Within Group	240.474	246	0.9775		
Total	244.072	249			

According to Table 4, results highlighted that there were no statistically significant differences ($p = 0.296$, $p > 0.05$) among the students' attitudes in terms of their department and the computed F-score is (1.226). These results could be indicated to the fact that all students well aware of curriculum and interested to learn.

Table 5: ANOVA result for students' attitude with regard to Department

	Sum of Squares	df	Mean Square	F	Sig.
Between Group	3.896	3	1.2986	1.330	0.476
Within Group	240.176	246	0.9763		
Total	244.072	249			

According to Table 5, results revealed that there were no statistically significant differences ($p = 0.476$, $p > 0.05$) among the students' attitudes in terms of their department and the computed F-score is (1.330). These results could be referred to the fact that all students are choosing their department carefully as per their preference of study.

Conclusion

A study was conducted to analyse college students' attitude towards usage of mobile technologies in e-Evaluation. Study revealed that students are well aware and using mobile technologies. There is significant difference of students' attitude in terms of gender. It favoured male students. While Anova tests showed there is no significant difference among students' attitude with regard age, degree, curriculum and department.

Students are well aware, knowledgeable and comfortable in choosing their course and using mobile technologies in submitting assignment, projects, grade pattern, assessment process and evaluating instructor.

Scope for Future Research

This study is confined to Coimbatore city only. Such study can be conducted for many districts and states. To get more insight on this area Faculty, institution, Government perspectives can also be included to make the study more viable.

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