



Technology Integrated Learning: Case Of Mathematics And Accountancy

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ARTICLE INFO ABSTRACT

This study explores the potential of Technology Integrated Learning (TIL) by examining its application in both mathematics and accounting education. While these subjects may seem distinct, they share a reliance on logical reasoning, data analysis, and problem-solving – skills that technology can significantly enhance. The Study discuss the growing importance of TIL in equipping students with the technological fluency necessary for success in the modern workforce. Integrating technology into these core subjects offers a chance to improve student engagement, visualize complex concepts, and practice applying mathematical and accounting principles in real-world scenarios with the aid of digital tools. By examining the effectiveness of TIL in these areas, the study aims to contribute to a growing body of research on the positive impact of technology in education. It will highlight the potential for TIL to not only strengthen foundational knowledge in mathematics and accounting but also develop critical digital literacy skills that are essential for lifelong learning and career preparedness.

INTRODUCTION

Digitalisation has prominently emerged with the rise of Covid 19 pandemic and the world has transformed from offline to online mode specially in terms of technology, transactions and even the health and education system. Education sector suffered the most during the time of lockdown. The student life was not as usual, they were not able to attend their schools and universities. There is a huge difference between offline and online mediums of learning. Face-to face interaction is must in classroom teaching. To assure the quality of education in higher education system, various steps have been taken by the Ministry of education, Higher Education Commission, University Grants Commission (UGC) and other bodies. The introduction of Massive Open Online Courses (MOOCS), Study Webs of Active Learning for Young Aspiring Minds (SWAYAM), SWAYAM PRABHA and other e-libraries have simplified the learning process. The students were able to study at home through online tutorials, online classes and access the online materials via various online platforms. But things were a little bit complicated also. There are many remote areas in India where the internet connectivity and accessibility are very limited. Another drawback of online system is the monotony; students are not able to interact with the teacher directly, also the possibility of transactional communication was difficult. There was only a one-way communication between teacher and student. Another major issue was the inability of students use new technologies. It is not only about the students, but the faculties, teachers and tutors also stand at the same place in terms of technology. In addition, the online exams were a herculean task for the teachers as well as for the students. The sanctity and honesty of appearing in the exam ended with the introduction of online exams. This resulted in the poor quality of knowledge among the students.

One of the major areas of consideration was regarding the problem papers. Teachers find it difficult to give classes without live interactions. Mathematics and accountancy teachers tried various methods to provide quality education to students in online mode. Problem solving skills of students were affected during the first quarter of e-learning, but later students as well as teachers made it up to mark.

REVIEW OF LITERATURE

Nurdayana Mohamad Noor(2023), stated e-learning is a type of electronic educational technology that enables online or distance learning to become the norm even before the COVID-19 era. It is a depiction of convergent products, services, and activities that have emerged in the digital media space and are thought to be more efficient at delivering learning and content resulting in time and cost savings, and having a smaller negative impact on the environment. Based on existing research, the problem area of this study is to understand how

technological convergence provides opportunities to promote the convenience of distance learning and its effect on society, as well as the barriers to the idea remaining implemented post-COVID-19. This paper collects data through semi-systematic literature review based on similar theme which are educational technology, distance learning and education during and post COVID-19. The primary objectives of this article are to analyse and discuss the impact of educational technology, as well as to discuss the implications of distance learning, particularly after the world was compelled to embrace it during the COVID-19 lockdown. In summary, it appears that educational technology is growing more interactive, mobile immersive, and ubiquitous in the second decade of this twenty-first century. The development of digital platforms and tools, the availability of digital content to adult professionals, and self-paced continuous learning appear to be the key components of the learning of the future. Although there are numerous challenges such as infrastructure and internet accessibility that must be addressed, distance learning has a bright future, and e-learning is the most effective tool for achieving it. More research is needed to shed light on educational technology as a product of technological convergence, which are not only about unification and commonality, but also about divergence in various aspects and opportunities

Abbas Gilakjani (2017) Technologies have dramatically changed the way people gather information, carry out research, and communicate with others worldwide. Technology has removed the distance obstacles and has made it possible for higher education to effectively teach anyone. Technology integration is being increasingly used in instruction to improve teaching and learning. This rapid development of technology integration has presented a better pattern to find the new teaching models. Consequently, it has a key role in learning and teaching language skills. The integration of technology to create a context to teach and learn English skills has a lot of advantages. The fundamental aim of this paper is to review the issues related to technology integration in the learning and teaching of language skills. In this paper, the researcher defines the term technology integration, expresses the reason of integrating technology, explains the role of technologies in promoting learning, elaborates teachers' roles and learners' roles, reviews previous studies on the benefits of technology in the learning and teaching of language skills, indicates the situation of Information and Communication Technologies (ICTs) in Iran, and finally mentions the recommendations for the successful integration of technology. The review of literature revealed that the integration of technology into the classrooms considerably improves the learning and teaching of English language skills.

OBJECTIVES OF THE STUDY

1. To evaluate the effectiveness of various e-learning tools in teaching mathematics and accountancy.
2. To understand the challenges faced by students in learning mathematics and accountancy online.
3. To compare e-learning with classroom mode in learning mathematics and accountancy.

RESEARCH METHODOLOGY

Primary data and secondary data were used for the study. A structured questionnaire was administered for collecting primary data. Secondary data was collected from websites, articles collected from various journals, books, thesis etc. Sample size was limited to 100 respondents. Convenience sampling method is used because, it is cost effective and the information is readily available. Tables, Likert scale and Percentages were used for analysing data. Chi square test was used for testing hypothesis.

ANALYSIS AND INTERPRETATIONS

EFFECTIVENESS OF VARIOUS E- LEARNING TOOLS

Table 1

PARTICULARS	Very effective (5)	Weighted Value	Effective(4)	Weighted Value	Neutral (3)	Weighted Value	Less effective (2)	Weighted Value	Not at all effective (1)	Weighted Value	Mean Score
Video Classes	49	245	22	88	18	54	7	14	4	4	4.05
Notes and content	34	170	26	104	11	33	19	38	10	10	3.55
Live Meetings	61	305	25	100	10	30	3	6	1	1	4.42
Other	22	110	16	64	39	117	8	16	15	15	3.22

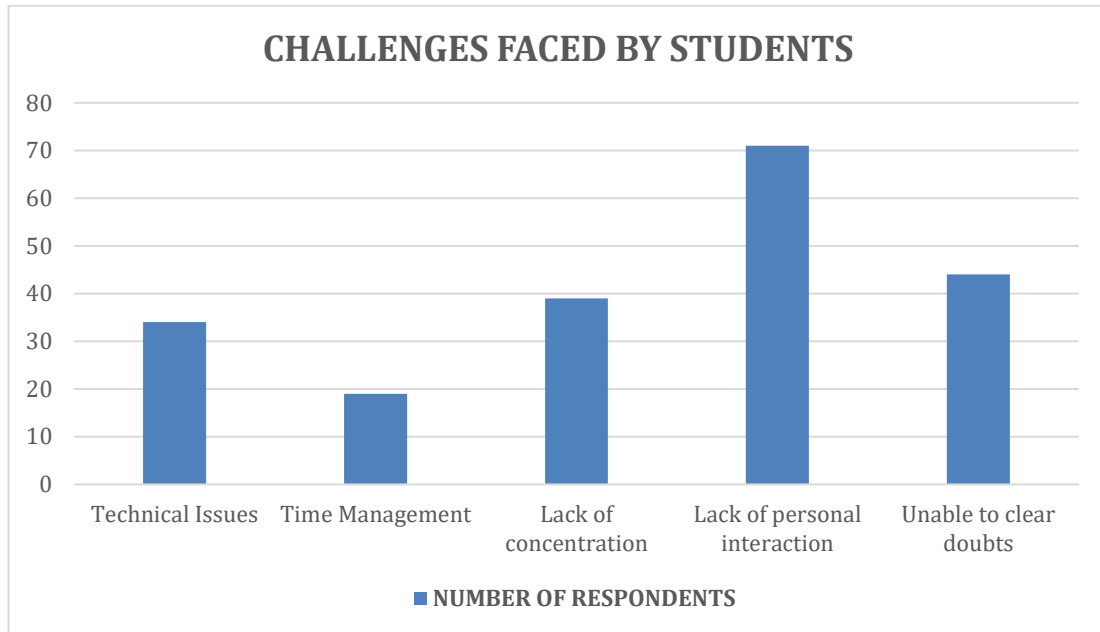
(Source: Primary Data)

On analysing the effectiveness of various e learning tools in teaching Mathematics and Accountancy, Video classes and live meetings proved to be very effective with mean score of 4.05 and 4.42 respectively. Notes, contents and other tools proved to be effective with mean scores 3.55 and 3.22 respectively.

CHALLENGES FACED BY STUDENTS**Table 2**

PARTICULARS	NUMBER	PERCENTAGE
Technical Issues	34	34
Time Management	19	19
Lack of concentration	39	39
Lack of personal interaction	71	71
Unable to clear doubts	44	44

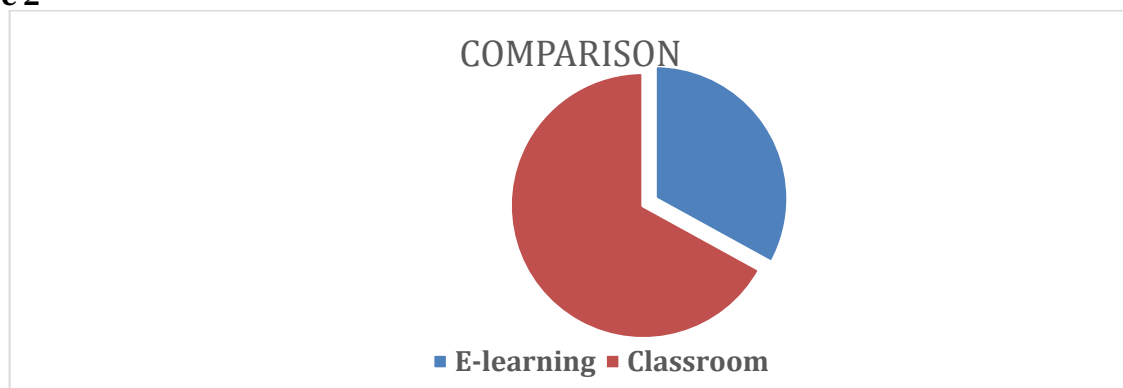
(Source: Primary Data)

Figure 1

Majority of the Mathematics and Accountancy students felt lack of personal interaction (71%) as the major challenge in e- learning. Unable to clear doubts (44%), lack of concentration (39%), technical issues (34%) and time management (19%) were the other challenges faced by students.

COMPARISON BETWEEN E-LEARNING WITH CLASSROOM MODE**Table 3**

PREFERENCE	NUMBER	PERCENTAGE
E-learning	33	33
Classroom	67	67

Figure 2

On comparing learning of Mathematics and Accountancy over online and classroom modes, majority of the respondents prefer Classroom learning (67%) .

FINDINGS AND SUGGESTIONS

On analysing the effectiveness of various e learning tools in teaching Mathematics and Accountancy, Video classes and live meetings proved to be very effective. Majority of the Mathematics and Accountancy students

felt lack of personal interaction (71%) as the major challenge in e-learning. On comparing learning of Mathematics and Accountancy over online and classroom modes, majority (67%) of the respondents prefer Classroom learning. It is to be noted that video classes and live meetings are effective in the opinion of students, if we could provide them personal interaction and opportunities to clarify their doubts, e-learning will be more effective in terms of Mathematics and Accountancy students.

CONCLUSION

In today's rapidly growing educational landscape, the future of e-learning is brighter than ever before. With advancements in technology, instructional design, and a focus on learner engagement, e-learning is poised to reshape the way we acquire knowledge and skills. One of the most significant advantages of e-learning is the availability of data-driven insights. Online platforms capture vast amounts of data on learner behaviour, performance, and engagement. These valuable insights can be used to enhance the learning experience and optimize instructional strategies. Data driven, visually and verbally rich, free and feasible tools should be used to deliver problem papers especially Mathematics and accountancy.

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