



An analysis of educational technology usages of college students in learning process

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Abstract

In the present educational sector, many of the students and teachers are using the modern and innovational technologies for their learning purposes. Majority of the educational institutions preferred e-learning systems for updating their knowledge. Some of the innovational technologies create a links between teachers and students and help them to enhance their intelligent level. To enhance the qualitative learning and improve the understanding capability of students, nowadays every students are using Laptop, Email, YouTube, PowerPoint slides, Tablets and Multimedia information. This paper mainly focuses on the preference of technology and the influential factors of students to use technology in their learning process.

Keywords: association, influential factors, learning process, educational technology

1. Introduction

In the recent scenario, technology plays a vital role in the teacher and student learning process. In the teaching pedagogical systems, numerous technologies are used by the students and teachers for their wisdom. Every teacher is updating their knowledge by way of this innovational technology. The teachers are motivating the students and attract their attentiveness for the full duration of the class by this creative technology. This paper, focus the different methods of technology and show the influential factors to the college students for the purpose of their learning process. To enhance the qualitative learning and improve the understanding capability of students, nowadays every students are using Laptop, Email, YouTube, PowerPoint slides, Tablets and Multimedia information.

In Sultanate of Oman, the students and teachers are using moodle software for their teaching and learning pedagogical system. This software allows the instructor to extend students education beyond the classroom. Each Instructor is uploading the course outlines, course material, chapter wise class room presentation slides, Assignments, give comments to the students for the concerned courses and model question papers through moodle software. The students also easily access their learning material through this innovational moodle platform.

Technology based education has to promote the student learning capability. Some of the teachers are using different programs for supporting their courses like Solver Solutions, Microsoft Excel, SPSS, AMOS, Sun space, eVision, JIRA, CIPD, Excel Solver and RSP (Risk Solver Platform for Education), Tally ERP 9i and Gaming technology. This type of technology creates a rich learning experience for students, and a rewarding teaching experience for the faculty members.

This paper shows that the effective way of technology usage by the students in their academic process. Technology is helping students to expand their knowledge in different ways. Majority of the students always use laptop and smart phone in

their learning. To enhance the quality learning and improve the understanding capability of students, faculty members are also using Laptop, White board, Email, YouTube, PowerPoint slides, Charts and diagrams, Images and Multimedia information during their teaching.

2. Statement of the problem

In the competitive world, the students are facing lot of troubles in their learning environment. Modern educational technology plays a crucial role on the part of students and teachers. Nowadays, many of the teachers are also using creative technology to engage the students in a meaningful and funny way. Technology has the ability to provide the good interaction between teachers and students. The Institutions are using technology has to create a quality leaning environment and increase the confidential level of the students and teachers. In short, it can be concluded that the habitual learning process is focused on the grading system. But educational technology totally changed the study culture, and it attracts the students in a joyful and practical way of understanding the concepts. Hence, this paper aims to analyze the educational technologies and its benefits of college students in the learning process.

3. Objectives of the study

1. To examine the preference of different methods of technology used by the college students.
2. To measure the association of educational qualification and the purpose of using technology in their learning process.
3. To analyze the influential factors of students to use technology in their learning process.

4. Research design

In the research design process, the researcher adopted convenient sampling method for collecting data. The college

students are selected and it was ensured that the people are highly using the technology for their learning process. On adopting this method totally two colleges are selected from Sultanate of Oman. From each college 65 students were selected. So the proposed sample size of 130 college students are taken up for the study. Accordingly, 130 questionnaires were collected and 8 questionnaires are excluded due to a large amount of missing data. Consequently, 122 valid questionnaires were used for the analysis.

5. Sources of data collection

This research consists of both primary and secondary data. Interview method was followed for collecting the data. Primary data for this research was collected through questionnaires and direct face to face conversation among the

respondents. Secondary data for this study was composed from the internet, different periodicals, books in chapters, magazines and the Governmental published documents.

6. Hypotheses of the Study

The specific hypotheses are tested in the study is to analyze the pattern of utilization of technology for the purpose of learning.

HO: There is no association between educational qualification of the students and their purpose of using technology in their learning process.

HI: There is an association between educational qualification of the students and their purpose of using technology in their learning process.

Table 1: Factors influencing the students to use technology in learning process

Sl. No	Factors	Mean	Rank
1.	Innovational Information	1.59	2
2.	Easy Access	1.88	1
3.	Multimedia Information	1.58	3
4.	Error free information	0.64	5
5.	Easy understanding	0.82	4

Source: Primary Data

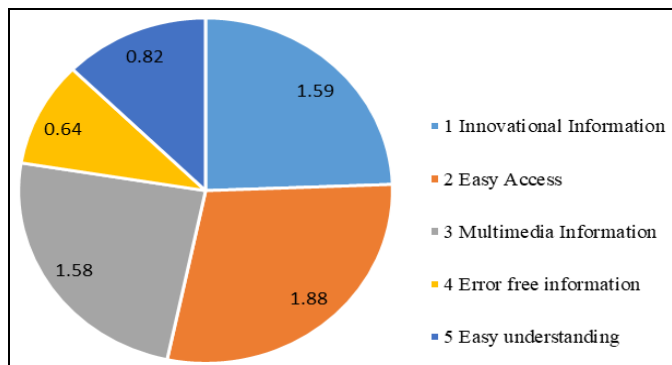


Fig 1: Factors influencing the students to use technology in learning process

Table 1 depicts that the factors influencing the students to use

technology for the purpose of learning. It is observed that most of the students believe that the technology are mostly helpful for accessing the information in an easiest way, it is ranked in the first place with the mean score of 1.88. Similarly, the sample subjects are influenced by the innovational information, multimedia information and easy understanding information. These factors are rated in second, third and fourth place with an average score of 1.59, 1.58 and 0.82 respectively. Subsequently it is found that the students prefer to use technology for the purpose of error free information. The students are also using technology for their emotional satisfaction.

From the elaborate data discussion done in the Table 1 was found that most of the students believe technology are very helpful for accessing the innovational information, it is ranked in first place with the mean score of 1.88.

Table 2: Association of educational qualification of the students and their purposes of using technology in learning process

Variables	Source	Sum of Square	DF	Mean square	F	Sig
Saves time	Between Groups	1.293	4	.498	3.255	.021
	Within Groups	45.130	118	.153		
	Total	46.423	122	-		
Review & Practice exercises	Between Groups	1.856	4	.619	3.679	.012
	Within Groups	59.615	118	.168		
	Total	61.471	122	-		
Solving problem	Between Groups	2.029	4	.676	3.509	.513
	Within Groups	82.863	118	.193		
	Total	84.892	122	-		
Individual and group project	Between Groups	.280	4	.093	.395	.757
	Within Groups	24.213	118	.236		
	Total	24.493	122	-		
Research purpose	Between Groups	2.551	4	.850	4.796	.003
	Within Groups	68.267	118	.177		
	Total	70.818	122	-		

Educational Games	Between Groups	1.702	4	.567	2.661	.047
	Within Groups	22.361	118	.213		
	Total	24.063	122	-		
Writing assignments	Between Groups	2.702	4	.567	3.772	.052
	Within Groups	42.361	118	.213		
	Total	44.063	122	-		
Class presentations	Between Groups	1.702	4	.567	2.334	.036
	Within Groups	22.361	118	.213		
	Total	24.063	122	-		
Creation of multimedia content	Between Groups	1.702	4	.567	1.245	.436
	Within Groups	20.361	118	.213		
	Total	22.063	122	-		

Level of Significance at 5 per cent

Table 2 shows that the relationship between educational qualification of the students and the purpose of using technology in the learning process. Also it shows that, the factors such as saving time, review and practice exercise, research purpose, educational games, writing assignments and class presentations are less than 0.05 at 5 per cent level of

significance. It establishes good relationship between the variables tested. Therefore, the hypothesis is accepted. Thus it is concluded that there is an association between educational qualification of the students and their purpose of using technology in their learning process.

Table 3: Association between Frequency and Methods of usage of technology by the students in learning process

Methods of Technology	Frequency of Using Technology				Total
	Daily	Once in a week	Once in a month	Two months once	
Smart phone	30(88.24)	2(5.88)	2(5.88)	0(0.00)	34(100)
Tablet	4(40.00)	3(30.00)	2(20.00)	1(10.00)	10(100)
Moodle software	7(50.00)	4(28.57)	1(7.14)	2(14.29)	14(100)
Multimedia tools	5(41.66)	2(16.67)	3(25.00)	2(16.67)	12(100)
You tube	4(50.00)	2(25.00)	1(12.50)	1(12.50)	8(100)
Laptop	2(22.22)	4(44.44)	2(22.22)	1(11.11)	9(100)
E-Mail	3(27.27)	6(54.54)	2(18.19)	0(0.00)	11(100)
Power point slides	15(62.50)	5(20.83)	3(12.50)	1(4.17)	24(100)
Total	70(57.37)	28(22.95)	15(12.30)	9(7.38)	122(100)

Source: Computed from Primary Data

From the Table 3 it is inferred that out of 122 technology users, 30 (88.24 per cent) students always use smart phone for their educational purpose. Followed by, 2 (5.88 per cent) sample subjects prefer to use smart phone once in a week. Whereas the remaining 2 (5.88 per cent) students use ordinary phone for their day to day life and use smart phone once in a month for their learning process.

Further it is observed that out of 24 Power point slide users, 15 (62.50 per cent) students always prefer to use the power point daily for their studies. Followed by, 5 (20.83 per cent) sample subjects prefer to use such technology once in a week. Whereas the remaining 3(12.50 per cent) and 1(4.17) of students use such type of technology as once in a month or two months once.

The data presented in the above table indicates that out of 14 Moodle software users, 7(50.00 per cent) students have to use this moodle software daily for their learning. Followed by, 4(28.57 per cent) students use the software once in a week for updating their knowledge. After, 2 (14.29 per cent) sample subjects use the software once in two months. The rest of 1 (7.14 per cent) student uses the moodle software once in a month for their studies.

Subsequently it is observed that out of 12 multimedia tools users, 5 (41.66 per cent) of the students using the multimedia tools on a daily basis. Followed by, 3 (25 per cent) sample subjects were using these types of tools once in a month.

Whereas the remaining 2 (16.67 per cent) of the students were using these multimedia technology on weekly basis or even some time two months once. Similarly it is inferred that out of 11 E-Mail users, 6 (54.54 per cent) students were using e-mail once in a week. Followed by, 3 (27.27 per cent) of sample subjects prefer to use e-mail on a daily basis for their learning environment. Whereas the remaining 2 (18.19 per cent) students were using e-mail technology as monthly once.

Further it is found that, out of 122 respondents, 27 students were also using Tablet, You tube and laptop for their study. Thus it is concluded that majority of the students prefer to use smart phone technology as daily for the purpose of enhancing their intelligent level.

7. Finding

1. From the detailed data analysis it is found that majority of the students use the technology with the influential factors of accessing the information in an easy way, it is ranked in first place with the mean score of 1.88
2. From the empirical results of ANOVA model it is revealed that there is an association between educational qualification of the students and their purpose of using technology in their learning process.

The studies also revealed that, majority of the students are using the familiar technology smart phone daily for their study purpose.

8. Conclusions

Technology has helped the students in the development of smart phone learning and remote learning. Nowadays many universities and colleges providing their education through creative virtual classrooms and smart technology. Students can attend virtual classrooms during their free time, and they can also have an opportunity to cooperate with other students virtually. Advanced developments in instructive technologies have produced optimistic outcome in the present educational segment. The technology is sustaining both education and knowledge creation processes, technology has used in classrooms through digital learning tools like, computers, iPads, Lap tops, Tablet, smart phones, Online videos, white boards and so on. The technology has increased student's engagement and inspiration towards learning.

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