



OPEN SOURCE OF E-LEARNING MANAGEMENT SYSTEM.

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Abstract

E-learning is not going away any time soon and has the potential to make a far more significant impact on higher education in the years to come. On the other hand, there are certain disadvantages associated with taking classes online, such as the fact that students are required to make a time commitment and are held to a lower level of accountability than they would be in a traditional classroom setting. Students frequently report that using the internet makes it impossible for them to maintain their motivation since it gives them the impression that they are all by themselves in the world. Other challenges include the following: In addition, teachers have the impression that they lack the power to prevent pupils from cheating and to maintain order in the classroom

Keyword: E-learning, higher education, traditional classroom and online learning

Introduction

The evaluation of students has always been one of the main challenges of the teacher, both in a face-to-face context and in the current context in which technology is an integral part of the teaching learning process. As Brown (2005) states, "evaluation is probably the most important thing we can do to help our students learn"; being a "central aspect of education and curriculum" (Boud and Associates, (2010), the evaluation should be used as a "pedagogical strategy, not as an instrument for verifying learning" (Caldeira, 2004). Both in a face-to-face and in an online context, the "understanding of the evaluation and the choice of evaluation instruments should be in line with the pedagogical project of the course" (Nunes, 2010). As Brown (2005) argues, the evaluation "it must be adjusted to its purpose" and being a continuous process of a very diverse nature, given the multiplicity of skills and learning to be developed, it should, as Sanavria (2008) point out, be careful when defining techniques and assessment instruments.

In the face-to-face context, and in order to verify the learning performed by the students, in addition to formal procedures, such as tests, the teacher uses other complementary mechanisms, such as observation and participation in class. In this way, the teacher can make adjustments to the planning of his classes, that is, he/she can change the pace of the class, use complementary material, use different methodologies. In distance education, assessment is especially challenging since teachers do not have verbal and visual indicators.

Literature

Moore (1989) advocates the need for students to share responsibility for their own learning processes. The student's autonomy has to do with the student's ability, before the programmatic contents of the course, to establish their own objectives, methodologies and materials to be used, as well as stages and ways of evaluating their learning and acquiring knowledge/skills.

Macdonald (2008) associates evaluation with the development of competent e-students. These e-students, according to the author, when using computers as a study tool, develop communication and interpretation skills as well as analysis and critical sense.

Methodology

Aim

The purpose of this research is to examine the open source of E-learning management system.

Objective

- To understand the concept of E-learning
- To understand the concept quantity and quality of online course materials
- Find out the flexibility of online learning
- To find out the technical support provide in online learning

Rationale

E-learning is the process of learning via computers over Internet and intranets and referred to as web-based training, online training, distributed learning or technology for learning a learning Management System (LMS) provides the platform for the enterprise's online learning environment by enabling the management, delivery and tracking of blended learning..

Variables

- Sex/ Gender
- Education
- Status
- Age and
- type of Enrolment

Type of study

observational study.

Sample Size

Two Hundred and Forty (240) study subjects (including male and female both).

Description of Tools Employed

Five-point Likert scales were developed for the sake of standardization. Many questions are generated by the researcher about open source of E-learning management system, they are organized into many groups for your convenience.

Statistical Analyses

Statistical analysis of the data was done by using percentage and chi-square with SPSS software. Pearson's correlation coefficient and SPSS software were used to assess the correlation and do data analysis.

With 95% confidence level and absolute error of +/- 10 % , a sample size of 240 subjects allowed us to find the desired outcome.

$$N = (Z^2 * P * Q) / d^2$$

Significance: 0.05%

Statistical Analysis:-

- Data has been presented using Diagrams, percentages and Frequency.
- Association between variables was found using Chi square test

Results

The examination of the information gathered from 240 respondents is the subject of this chapter. Descriptive analysis is the primary step while analysing a research study where in the present research talks about the sample characteristics in terms of major demographic traits such as gender, education, Status, Age and type of Enrolment.

Table 1: Gender

Gender	Frequency	Percent
female	83	34.6
Male	157	65.4
Total	240	100.0

According to the numbers shown here, 240 individuals have evaluated on online Education system, with male making up 65.4% and women making up 34.6% of the sample.

Table 2: Education

Education	Frequency	Percent
Graduation	98	40.8
Others	27	11.3
Post-Graduation	56	23.3
Senior secondary and below	59	24.6
Total	240	100.0

Based on this data, we know that 240 individuals have participated in the survey; among these individuals, 40.8% have doing Graduation. The remaining 23.3% are post-graduates and those who did not complete high school are 24.6%, and reaming 11.3% were doing miscellaneous education like preparing for any exam.

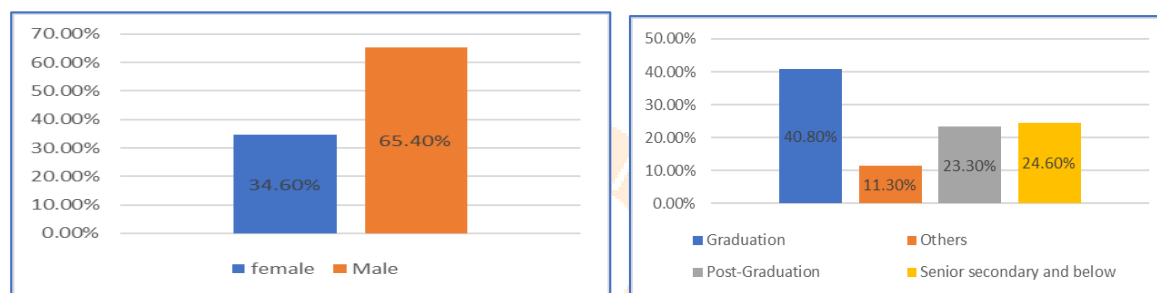


Figure 1: (a) Gender (b) Education

Table 7.3: Status

Status	Frequency	Percent
lower class	64	26.7
middle class	90	37.5
Upper class	86	35.8
Total	240	100.0

Based on this data we can know the status of the family which are teaching able to provide online education to their child and we find that 35.8% and 37.5% of upper and middle class family/student are use online education system and 26.7% student of lower class use online education system.

Table 4: Age

Age	Frequency	Percent
18-20years	19	7.9
21-23years	113	47.1
24-28years	42	17.5
above 28years	24	10.0
below 18years	42	17.5
Total	240	100.0

Age is the one of most important factors which play a major role not only in education system but also in every field and read the data we find that 47.1% of student belong to 21-23years and remaining 7.9% are 18-20years 17.5% are 24-28years 10% are above 28years and below 18years are 17.5%.

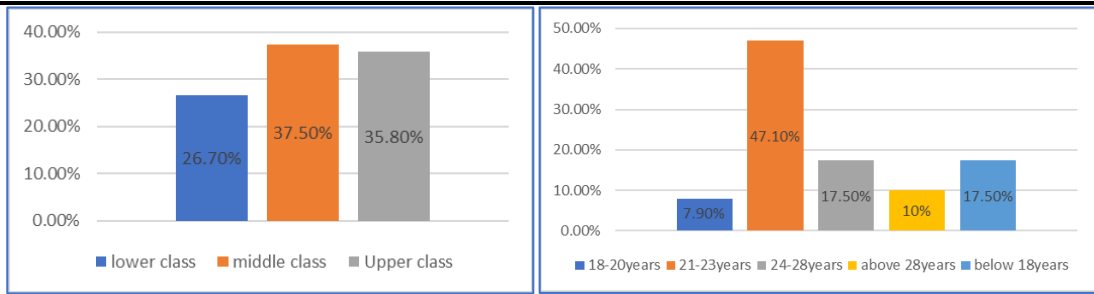


Figure 2: (a) Status (b) Age

Table 5: type of Enrolment and Are you using Online Platform for learning

Value	type of Enrolment			Are you using Online Platform for learning		
	Full time	Part time	Total	No	Yes	Total
Frequency	165	75	240	30	210	240
Percent	68.8	31.3	100.0	12.5	87.5	100.0

Online education and offline education have also depend the surrounding of the student and we find that 210 out of 240 student support online education which 87.5% of total and remaining 30 out of 240 student not support online education. So the remaining study is done on the base 210 respond.

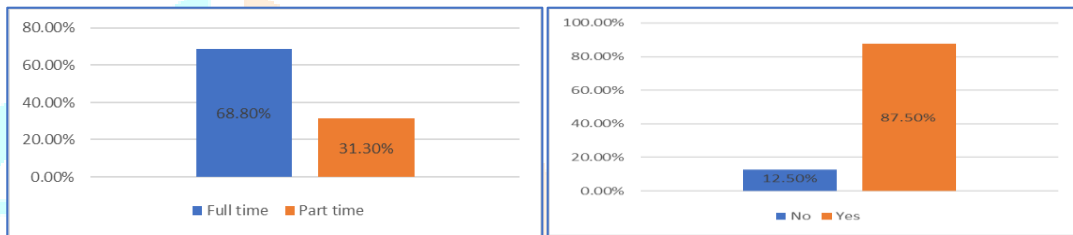


Figure 3: (a) Type of Enrolment (b) Are you using Online Platform for learning

Table 5: I am satisfied with the technical stability/reliability and easy-to-use interface

5 Likert scale	I am satisfied with the technical stability/reliability		I am pleased with the easy-to-use interface	
	Frequency	Percent	Frequency	Percent
Agree	42	20.0	65	31.0
Disagree	31	14.8	31	14.8
Neutral	55	26.2	37	17.6
Strongly Agree	54	25.7	58	27.6
Strongly disagree	28	13.3	19	9.0
Total	210	100.0	210	100.0

By study data that I am satisfied with the technical stability/reliability is important for consumer using online platform for learning 26.2% say that it's Neutral 25.7% say that it's strongly agree 20% are agree 14.8% and 13.3% are disagree and strongly disagree.

Interface of any system help to use that platform friendly and easily, by analysing the data we can say that 31% are agree with interface of the system, 27.6% are strongly agree and 17.6% are neutral 14.85 are disagree and 9% are Strongly disagree with interface.

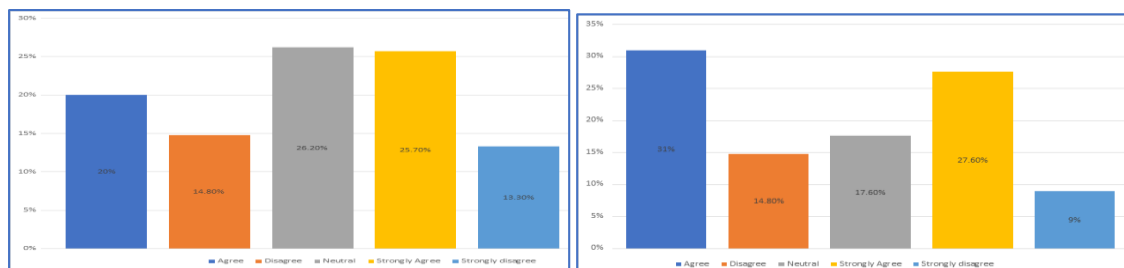


Figure 4: (a) I am satisfied with technical stability (b) easy-to-use interface

Table 6: use the learning site anytime and true, contemporary, and pertinent to the course.

5 Likert scale	I have access to the learning site whenever I want		Very true, current, and relevant to the subject matter of the course	
	Frequency	Percent	Frequency	Percent
Agree	53	25.2	49	23.3
Disagree	34	16.2	38	18.1
Neutral	50	23.8	47	22.4
Strongly Agree	55	26.2	56	26.7
Strongly disagree	18	8.6	20	9.5
Total	210	100.0	210	100.0

E-learning is a technology supposed to make learning easily and allow us to access the data whenever student are need. It's help to the student to manage the time according their needs by using this table we can say that 26.2% are Strongly Agree, 25.2% are agree 23.8% are neutral and remaining 16.2% and 8.6% are disagree and Strongly disagree.

Choosing the online education offer use to choose current and relevant to the subject matter of the course easily by use different sources of sites and platform, and 26.7% member are strongly agree that current, and relevant to the subject matter of the course, 23.3% are agree 22.4% are Neutral 18.1% and 9.5% are Disagree and Strongly disagree



Figure 5: (a) use the learning site anytime (b) True, contemporary, and pertinent to the course.

Table 7: Specificity is available and Information is formatted correctly.

5 Likert scale	Information is accessible at the appropriate level of specificity.		The right information is available in the right format.	
	Frequency	Percent	Frequency	Percent
Agree	48	22.9	43	20.5
Disagree	32	15.2	28	13.3
Neutral	49	23.3	54	25.7
Strongly Agree	58	27.6	58	27.6
Strongly disagree	23	11.0	27	12.9
Total	210	100.0	210	100.0

In online lot of information on any topics are in a large number but getting the accessible at the appropriate level is also an important part 27.6% are Strongly Agree 23.3% are Neutral 22.9% are agree 15.2% are disagree and 11% are Strongly disagree.

Using a right information play an important role to understand the concept if the information is available in the right format will help more to understand the concept in easily way so 27.6% are Strongly Agree, 25.7% are neutral, 20.5% are agree, 13.3% and 12.9% are Disagree and Strongly disagree.

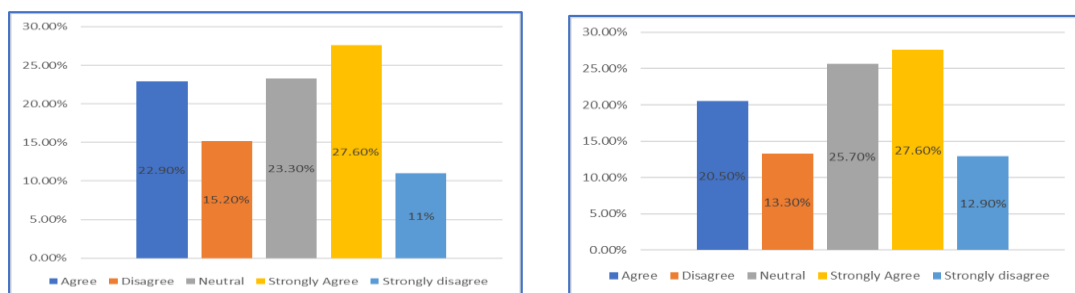


Figure 6: (a) Specificity is available (b) Information is formatted correctly.

Table 8: Online course resources are plentiful and high-quality and Online class/tests helped me organize my classwork better.

5 Likert scale	I am pleased with the quantity and quality of the available online course materials.		Taking class/test via the Internet allowed me to arrange my work for the class more effectively	
	Frequency	Percent	Frequency	Percent
Agree	52	24.8	45	21.4
Disagree	42	20.0	44	21.0
Neutral	42	20.0	52	24.8
Strongly Agree	56	26.7	51	24.3
Strongly disagree	18	8.6	18	8.6
Total	210	100.0	210	100.0

the quantity and quality of the available online course materials help the student learn properly without and advance searching of material by use this table we can say that 26.7% are Strongly Agree, 24.8% are agree, 20% are Disagree and Neutral 8.6% are Strongly disagree.

Taking class/test via the Internet allowed me to arrange my work for the class more effectively which help to manage the time management system more effectively by use the data we can say that 24.8% and 24.3% are Neutral and Strongly Agree, 21.4% and 21% are agree and disagree and remaining 8.6% are Strongly disagree.

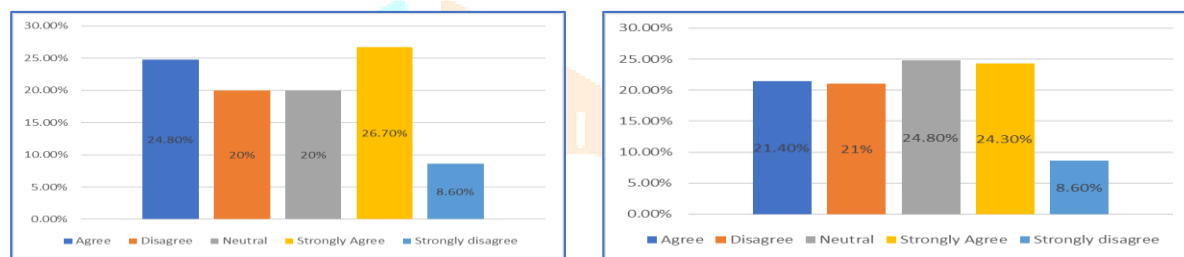


Figure 7.13: (a) Online course resources are plentiful and high-quality (b) Online class/tests helped me organize my classwork better.

Table 9: Online classes/tests gave me more time for other things and Online classes helped me organize my job schedule.

5 Likert scale	I was able to spend more time on unrelated activities by taking the class/test online		I was able to better plan my work schedule by taking a class or test online.	
	Frequency	Percent	Frequency	Percent
Agree	54	25.7	48	22.9
Disagree	43	20.5	44	21.0
Neutral	36	17.1	56	26.7
Strongly Agree	56	26.7	35	16.7
Strongly disagree	21	10.0	27	12.9
Total	210	100.0	210	100.0

Working and study online also allow to do unrelated activity during the session like watching post of friends and family, reading a notification or tweets on the base this we can say that 26% and 25.7% Strongly Agree and Agree with statement and 20.5%, 17.1% and 10% are Disagree, Neutral and Strongly disagree.

Scheduling is the process of organizing one's daily tasks in such a way that one may complete all of their most important and time-sensitive objectives within their available time constraints, by use the data we can say that 26.7% are neutral 22.9% and 21% are agree and disagree and 16.7% and 12.9% are Strongly Agree and Strongly disagree.

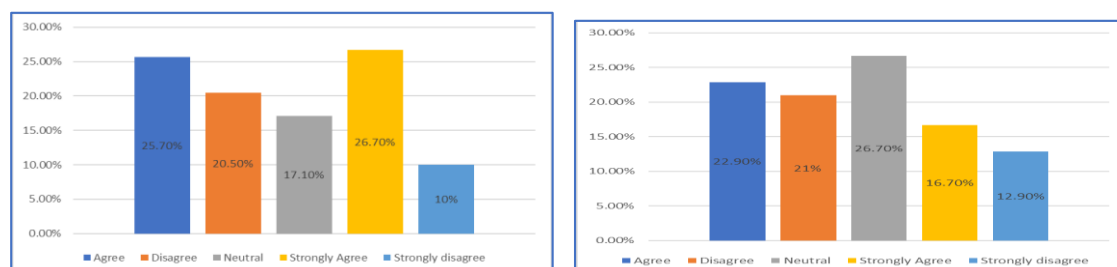


Figure 7.15: (a) Online classes/tests gave me more time for other things (b) Online classes helped me organize my job schedule.

Table 10: My school gives online students an orientation lesson before their first class and I may search the central library's website.

5 Likert scale	Before taking their first online course, my institution offers an orientation module for online students.		I can look for materials on the central library's website	
	Frequency	Percent	Frequency	Percent
Agree	52	24.8	51	24.3
Disagree	35	16.7	31	14.8
Neutral	37	17.6	42	20.0
Strongly Agree	50	23.8	57	27.1
Strongly disagree	36	17.1	29	13.8
Total	210	100.0	210	100.0

An online course's orientation is typically presented in the form of a "Course Orientation Module." In many ways, the first night of a traditional classroom is analogous to the process of making an Orientation Module. To help students become comfortable with the course's routine, expectations, and organization, as well as the course's learning management system and the necessary hardware and/or software, this module has been designed and It is clear from the table that 24.8% and 23.8% are agree and strongly agree, 17.6% are neutral and 17.1% and 16.7% are strongly disagree and disagree.

Searching a content for study is an important challenge in online education system many student need to materials on the central library's website so that they can waste time in searching content and It is clear from the table that 27.1% are Strongly Agree 24.3% are agree , 20% are neutral and 14.8 % and 13.8% are disagree and strongly disagree.

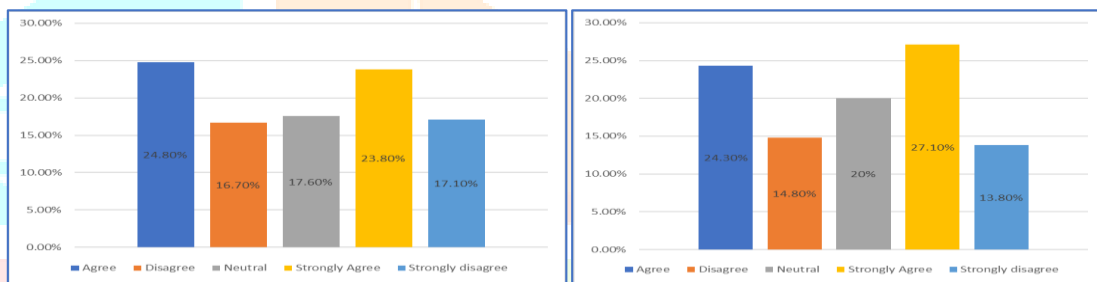


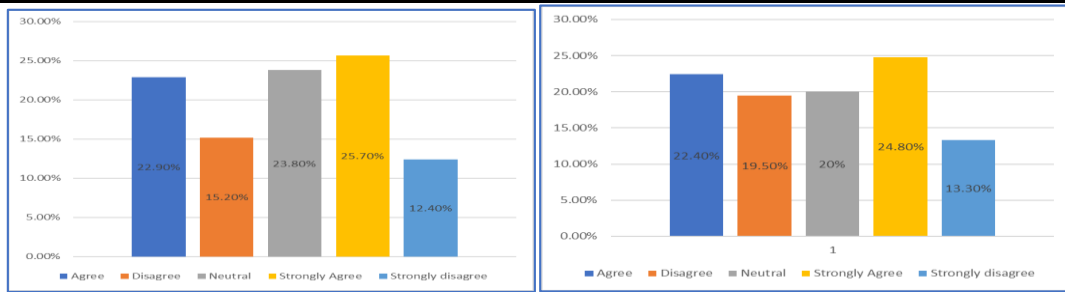
Figure 7.23: (a) My school gives online students an orientation lesson before their first class (b) I may search the central library's website.

Table 11: Technicians help me and IT assistance 24/7

5 Likert scale	I can get technical support from technicians		IT support available 24*7 (All days in a week and round the clock support)	
	Frequency	Percent	Frequency	Percent
Agree	48	22.9	47	22.4
Disagree	32	15.2	41	19.5
Neutral	50	23.8	42	20.0
Strongly Agree	54	25.7	52	24.8
Strongly disagree	26	12.4	28	13.3
Total	210	100.0	210	100.0

It's possible to turn challenges with technical help into advantages. The reoccurring need for technical support stems from the fact that it's vital not just to fix users' problems with the software and hardware at hand, but also to assist them when they get stuck. It is clear from the table that 25.7% , 23.8% and 22.9 are strongly agree, Neutral and agree and 15.2% and 12.4 % are disagree and strongly disagree.

The term "24/7 availability" refers to the state of being reachable at any time of day or night, any day of the week. Both the ability to be reachable at all times and the movement in social norms toward expecting reachability have been greatly influenced by technological developments in communication It is clear from the table that 24.8%, 22.4% and 20 are strongly agree, agree and Neutral and 19.5% and 13.3% are disagree and strongly disagree.



(a) Technicians help me (b) IT assistance 24/7

Table 7.31: My computer's operating system works, and my browser can play many common multimedia file formats and my campus and home gadget supports several web sources.

5 Likert scale	My computer's operating system functions properly, and my browser can play a number of popular multimedia (audio and video) file formats		Different online sources are compatible with my device at campus and residence	
	Frequency	Percent	Frequency	Percent
Agree	53	25.2	45	21.4
Disagree	39	18.6	35	16.7
Neutral	40	19.0	50	23.8
Strongly Agree	55	26.2	57	27.1
Strongly disagree	23	11.0	23	11.0
Total	210	100.0	210	100.0

One of the biggest problems with video conferencing is interference from ambient sounds. Those on the other end of the conversation may be dissatisfied if they hear background noises such as the rustling of papers, the clicking of pens, or even sound leakage from neighboring conference rooms. To get around this, there are microphones that selectively take up the sound you want and cancel out other noises like fans, laptops, pens clicking, and traffic outside the building and It is clear from the table that 26.2% are strongly agree, 25.2% are agree, 19.2% are neutral, 18.6% disagree and 11% are strongly disagree

Device compatible is main problem in online learning due to compatibility issues many device get heating problem and hang problem due to which there are so much disturbance in online learning and It is clear from the table that 27.1% are Strongly Agree, 23.8% are neutral 21.4% are agree, 16.7% are disagree and 11% are Strongly disagree

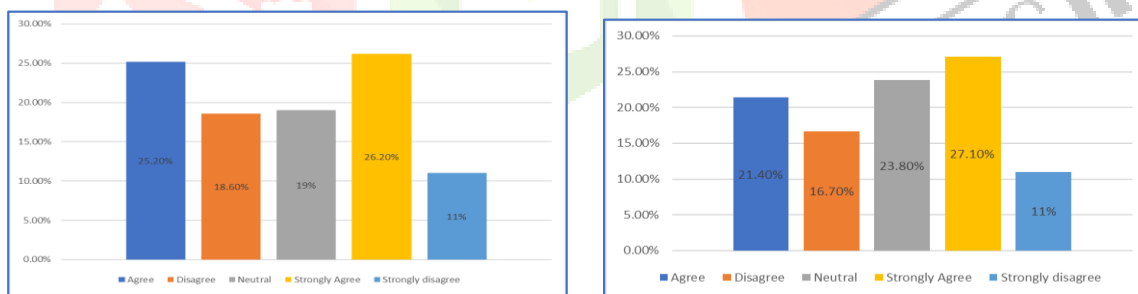


Figure 7.31:(a) My computer's operating system works, and my browser can play many common multimedia file formats (b) my campus and home gadget supports several web sources.

conclusion

As the demand for online courses has increased in recent times among educational institutions and college students who rely solely on flexible and comfortable education, the ultimate goal of this investigation was to investigate the impact that online learning has on students' academic achievement. This is because the demand for online courses has increased in recent times. We made an effort to measure. The conclusive findings acquired by carrying out this research. By use corelation test between demography and question used for investigation of online learning we find that there is no statistical significance between any questions and the demographic parameters as p value were >0.05 for all the parameters for all the questions. Saying that, we can't ignore that the answers showed in a social context that significance is there (even though not statistical). "I am pleased with the quantity and quality of the available online course materials with gender (significance value is 0.036), education (significance value is 0.033), age (significance value is 0.039) and type of Enrolment (significance value is 0.019)" other "significance I was able to spend more time on unrelated activities by taking the class/test online with education (significance value is 0.037), status (significance value is 0.02)"

Online learning's ability to help students improve has contributed to its impact on academic performance and achievement. The didactic teaching method no longer works, and online learning engaged students more than traditional teaching did. They now see teachers as learning facilitators and get most of their information from online sources. They took their. They have shown they can perform their duties, assess course design, and personalize learning. Online learning helped students overcome the time and geographical constraints of conventions and better explain and share their findings with classmates locally and globally. Online learning will only improve learning outcomes if we rethink delivery, content, and evaluation. Students are most motivated by a relevant topic and method. E-learning has a bright future, huge learning potential, and a great corporate culture.

REFERENCES

- [1]. Brinke, d. (2008). Assessment of prior learning. Maastricht, the netherlands: datawyse.
- [2]. Brown, s. (2005). Assessment for learning. In learning and teaching education, 1, 2004-05
- [3]. Caldeira, a. (2004). Evaluation of learning in digital media: new contexts. Accessed may 10, 2011. Available at <http://www.abed.org.br/congresso2004/por/htm/033-tc-a4.htm>
- [4]. Caldeira, a. (2007). Evaluation of learning in online education from a transformative perspective. Accessed march 13, 2011. available in <http://www.abed.org.br/congresso2007/tc/55200755305pm.pdf>
- [5]. Castillo, r. (2006, september). Evaluation of learning in "online" distance education. Net. Journal of distance education, issue m6 (special issue dedicated to assessment in virtual learning environments) accessed may 10 , 2011. Available <http://www.um.es/ead/red/m6/quesada.pdf>
- [6]. Cohen, l.; manion, l. E morrison, k. (2005). Research methods in education. 5th edition. London: routledge-falmer coppete, m. C. (2007). Evaluation in distance learning : processes and meanings.
- [7]. Dierick, s. & dochy, f.j.r.c. (2001). New lines in edumetrics: new forms of assessment lead to new assessment criteria. Studies in educational evaluation, 27, 307-309.
- [8]. Dorrego, e. (2006 september). Distance education and learning assessment. Net. Journal of distance education, issue m6 (special issue dedicated to evaluation in virtual learning environments). Granted on september 09 , 2011. Disponível em <http://www.um.es/ead/red/m6/dorrego.pdf>
- [9]. Al-mobaideen, h., & allahawiah, s. (2012). Factors influencing the effectiveness of e-learning systems in the educational process (" electronic learning System")(eduwave): jordan case study. European scientific journal, esj, 8(28)
- [10]. Al-rahmi, w. M., othman, m. S., & yusuf, l. M. (2015). The effectiveness of using e-learning in malaysian higher education: a case study university teknologi malaysia. Mediterranean journal of social sciences, 6(5), 625.
- [11]. Algahtani, a.f. (2011). Evaluating the effectiveness of the e-learning experience in some universities in saudi arabia from male students' perceptions, durham theses, durham university.
- [12]. Allen, i. E. & seaman, j. (2011) going the distance: online education in the united states, 2011 [online]. Sloane consortium website. Available at:
- [13]. [Http://sloanconsortium.org/publications/survey/going_distance_2011](http://sloanconsortium.org/publications/survey/going_distance_2011)
- [14]. Alsultanny y. (2006). E-learning system overview based on semantic web.
- [15]. Electronic journal of e-learning, 4 (2), 111 – 118.
- [16]. Amoozegar, a., daud, s. M., mahmud, r., & jalil, h. A. (2017). Exploring learner to institutional factors and learner characteristics as a success factor in distance learning.