Awareness and Perception Towards E-learning Among Faculty Members of Tripura University: A Case Study

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Abstract

Learning is gaining or acquiring of new knowledge and skills in something by study, experience or being taught. Learning can be facilitated by direct means, by personally attending classes conducted in the academic institutions or by indirect means such as distance learning. The online education referrers to teaching and learning method mediated by a computer system of a place which may be different from the learner's personal computer system. The modern developments in ICTs and emergence of the Internet have brought a gigantic transformation in the method of teaching and learning. The current study investigates the awareness and perception towards the new form of learning, i.e. e-learning among the faculty members of Tripura University. The study discovered that 52% of the total respondents belong to male category. 36% of the respondents are from age group 30-34, followed by age group 25-29 (34%). Maximum response from each department is 4 (4%). Most of the respondents are Assistant Professor (36%), followed by guest faculty (32%). Maximum (96%) respondents are aware of e- learning concept which is very encouraging in itself. Most respondents (76%) are aware of SWAYAM. More than half of the total respondents (52%) are interested to conduct course through Swayam. Maximum (80%) respondents are aware of e-PG Pathshala. Maximum of the respondents (84%) have not enrolled in any e-learning course. The maximum respondents (25 %) out of the enrolled ones have enrolled for e-learning course is from NPTEL portal. The results found will be a great help for the stakeholders of E-learning as it provided new insights.

Keywords: E-Learning, Online Learning, Swayam, E-PG Pathshala, Tripura University

1. Introduction

Today's education system is facing a paradigm shift as influenced and shaped by information communication technologies, digital technologies and their application in the education system. Though education system is always known to undergo a massive transformation by adopting newer and advanced technologies, the benefits remained limited to the learning institutions in mostly the first world countries. But now the scenario has tended to change as developing countries are also taking the wave of E- learning seriously. For instance, Govt. of India's ambitious initiative "Swayam" platform may come up as a game changer.

In the beginning of the third millennium, a new form of learning called e-learning is being introduced. The e-learning decreases the educational costs and it is more effective learning than traditional learning. Globally, it allows the fast dissemination of new techniques and processes, cancelling geographic

challenges. In addition, time, efficiency plays a role, as travel is reduced. Users can conveniently access training materials from home or while on the road via the Internet.

The letter "e" in e-learning stands for the word "electronic", e-learning would incorporate all educational activities that are carried out by individuals or groups working online or offline, and synchronously or asynchronously via networked or standalone computers and other electronic devices. These various types or modalities of e-learning activity are represented in Table 1.

Table 1. E-Learning Modalities

(Romiszowski, 2004).

Individualized self-pacede-learning online	Individualized self-pacede-learning offline
Group-basede-learning synchronously	Group-basede-learning asynchronously

The mechanism of interactive use of the Internet, information communication technologies and digital technologies in teaching and learning process can be referred to as E-learning. There are a series of terms used synonymously with E –learning such as online learning, virtual learning, distributed learning, network and web based learning.

The process Teaching and learning have advanced over time; and the current situation being experienced in academic institutions is the use of information technology as an arbitrator. This novel swing provides another outlook on education, with an emphasis on the use of electronically mediated tools to ease the learning process (Piccoli et al., 2001).

E-Learning, defined as instructional content or learning experiences delivered or enabled by electronic technology (Aydin and Tasci, 2005), predominantly computer networks and standalone computers, is one of the main advancements that is increasingly diffusing in corporate settings.

The study aimed to survey the awareness and perception of e-learning among the faculty members of Tripura University. Tripura University is the only central university in Tripura. In the year 1987 it was started as a state university and converted to central university in the year 2007. A total number of 40 departments are there running different courses under the University, which includes Certificate Courses, Under Graduate, Post Graduate Diploma and Post Graduate Studies.

Government of India has taken some striving steps towards implementation of E-learning courses through portals such as "Swayam" and "E- PG Pathshala".

1.1 SWAYAM

Swayam is a programme started by the Government of India and designed to attain the three fundamental principles of Education Policy viz., access, equity and quality. The aim of this effort is to take the best teaching learning resources to all. This is done through developing IT platform that facilitates hosting of all the courses, taught in classrooms from 9th class till post-graduation to be accessed by anyone, anywhere at any time. All the courses are interactive, prepared by the best teachers in the country and are available, free of cost to the residents in India. More than 1,000 specially chosen faculty and teachers from across the Country have participated in preparing these courses.

1.2 E-PG Pathshala

E-PG Pathshala is another MGRD, Government of India initiative taken under National mission on Education through ICT (NME-ICT). Under this program, UGC has been allocated to design E courses under 77 subjects at postgraduate level. Scholarly courses under all areas of knowledge have been included in this program.

1.3 Objectives of the study

- ❖ To identify the rate of awareness on E-learning among the faculties of Tripura University.
- ❖ To determine the frequency of use of E-learning tools among the sample population.
- ❖ To identify perception towards using E-learning tools among the faculties.
- ❖ To identify future plans regarding conducting of E-learning courses among the faculties of the university.
- ❖ To identify the rate of enrolment of E-learning courses by faculties of the university.

1.3 Significance of the study

E-learning is the type of educational instruction that occurs through the Internet. Whenever one watches a training video online or enrolls in a virtual class one is engaging in E-learning activities. Recently, the use of the Internet and other information communication technology has brought immense change to the mechanism of teaching and learning. In this regard, it is important to study the rate of awareness and perception of E-learning among the academicians active in higher education. With this view the current study was prepared to determine the awareness and perception of E-learning among the faculty members of Tripura University.

1.4 Limitation of the study

Due to time constraints, the current study investigated the awareness and perception towards E-learning only among the faculty members of Tripura University. For this study, opinion of students and research scholars was not undertaken. Also, the study considered faculties from only one organization that is Tripura University.

2. Review of Literature

Wang, Q., Zhu, Z., Chen, L. & Yan, 2009 studied the status of E-learning in China and found that there was a significant difference in in terms of development in different geographical locations in the country. The study also found that there is a certain group of students who cannot attain highly regarded universities after completion of their senior schools and as a consequence they crave for E-learning.

Ehlers, U. D, 2009 abridged the related literature in the area of E-learning and sketched the differences between e-learning 1.0 and e-learning 2.0 and combined it with a succession of formerly available literature.

Tai, 2008 constructed a hybrid system composing of artificial neural network (ANN) and data-mining (DM)tools. They used ANN tools to identify the different types of E-learners and data mining tools were used to bring out the best learning path rules.

Csete and Jennifer Evans, 2013, studied the institutional proposals to implant E-learning in a university in Hong Kong, from 2006-12, through large-scale funding of 43 e-learning projects. The

guiding principles behind the university's E-learning development was outlined. They strongly stressed that e-learning projects need careful preparation, scaffolding and managing. Also that piloting, evaluation and formal reporting as well as the availability of professional, technical and instructional design sustain are noteworthy aspects in triumph.

Sawang, S., Newton, C. & Jamieson, 2013 insisted that in order to conquer technological blockades, organizational support should be offered to the E-learners .The support mechanism includes user training, technical support, and managerial sustain to use e-learning. Organizations adopting e-learning need to examine the support requirements of the potential learners, and, where necessary, have resources for that support in place.

Richard Boateng, 2016 tried to determine factors affecting E-learning adoption among students of the University of Ghana. They studied factors such as computer self-efficacy (CSE), perceived ease of use (PEOU), perceived usefulness (PU) and attitude towards use (ATTU)) in the conceptual model of the study. It was found that "perceived usefulness" and "attitude towards use" had a direct effect on E-learning adoption whilst, PU and PEOU also had a direct relationship on ATTU. Other variables such as CSE and PEOU had an indirect relationship on ELA though they were found to have an insignificant direct relationship on ELA.

3. Methodology

For the current study two methods were applied. An extensive literature survey was done to get the idea bout previously done work in the area of E-learning. A questionnaire was prepared with Google form and distributed through e-mail IDs to all the faculties of Tripura University. 100 responses well received from 30 different departments of the university within 25 days. The responses received were analyzed with the help of Microsoft excel.

4. Data collection and analysis

The collected data is analyzed and represented in both tabular and graphical format.

Table 1: Gender wise distribution of sample population

Sl. no	Category	Number	Percentage
1	Male	52	52%
2	Female	48	48%
	Total	**100**	**100%**

Table 1 reveals the gender wise distribution of the sample and it shows that out of 100 respondents, 52 (52%) are male and 48 (48%) are female.

Table 2: Age Group wise distribution

Sl. No.	Age group	Number	Percentage
1	25-29	34	34%
2	30-34	36	36%
3	35-39	20	20%
4	40- ABOVE	10	10%
	Total	**100**	**100%**

Table 2 shows the Age group wise distribution of the respondents, out of 100 respondents, 34 (34%) respondents are from age group 25-29, 36 (36%) respondents are from age group 30-34, 20 (20%) respondents are from age group 35-39 and 10 (10 %) respondents are from age group 40 - Above.

Table 3: Department wise distribution

Sl. No.	Department	No. of Respondents	Percentage
1	Sociology	3	3%
2	Commerce	4	4%
3	Chemical and polymer Engineering	2	2%
4	M(16) Language Division	3	3%
5	Library and Information Science	4	4%
6	Economics	4	4%
7	Business Management	4	4%
8	Law	3	3%
9	Statistics	3	3%
10	Material Science and Engineering	4	4%
11	Mathematics	3	3%
12	Computer Science and Engineering	2	2%
13	Political Science	4	4%
14	Philosophy	4	4%
15	Botany	3	3%
16	Zoology	3	3%
17	Electrical Engineering	4	4%
18	Microbiology	3	3%
19	Physics	3	3%
20	Human Physiology	3	3%
21	Chemistry	4	4%
22	Philosophy	3	3%
23	Rural management and development	4	4%
24	Journalism and Mass communication	2	2%
25	Geography and Disaster management	4	4%
26	Forestry and Bio-diversity	3	3%
27	Information Technology	4	4%
28	Molecular Biology and bioinformatics	3	3%
29	Pharmacy	3	3%
30	English	4	4%
	Total	**100**	**100%**

Table 3 shows the department wise respondents. Out of 100 respondents from 30 departments, the department of Sociology, Language Division, Law, Statistics, Mathematics, Botany, Zoology, Microbiology, Physics, Human Physiology, Forestry and bio-diversity, Molecular Biology have 3 (3%) respondents from each. The department of Commerce, Library and Information science, Economics, Business Management, Material Science and Engineering, Political Science, Philosophy, Electrical Engineering, Chemistry, Rural Development and Management, Geography and Disaster Management, Information Technology and English have 4 (4%) respondents from each. The department of Chemical and Polymer Engineering, Computer Science and Engineering, Journalism and Mass Communication have 2 (2%) respondents from each.

Table 4. Designation wise distribution

Sl. No.	Designation	Number	Percentage
1	Professor	12	12%
2	Associate Professor	20	20%
3	Assistant Professor	36	36%
4	Guest Faculty	32	32%
	Total	**100**	**100%**

Table 4 states that out of 100 respondents, 12 (12%) respondents are Professors, 20 (20%) respondents are Associate Professors, 36 (36%) respondents are Assistant professors and 32 (32%) respondents are Guest faculties.

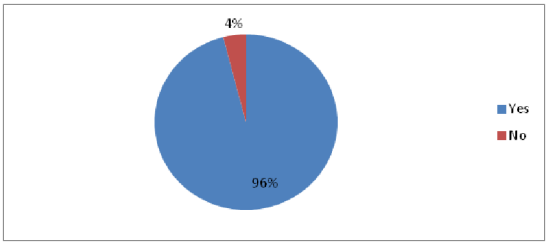

Figure 1: Awareness wise distribution of the respondents

Figure 1 states that out of 100 respondents, 96, (96%) respondents are aware of E-learning whereas 4, (4%) are not aware of it.

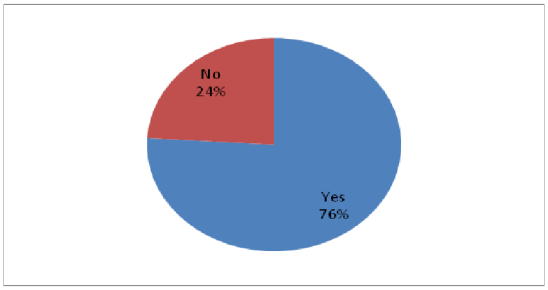

Figure 2: Awareness of Swayam

Figure 2 represents that out of 100 respondents, 76, (76%) respondents are aware of Swayam and 24, (24%)) respondents are not aware of it.

Table 5 : Interest in conducting E-learning courses-wise distribution

Sl. no	Category	Number	Percentage
1	Yes	52	52%
2	No	4	4%
3	May be	44	44%
	Total	**100**	**100%**

Table 5 states that out of 100 respondents, 52, (52%) respondents are interested in conducting a course through Swayam. 4, (4 %) are not interested and 44 (44%) respondents are not sure of it.

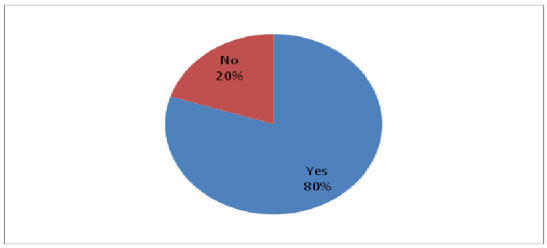

Figure 3: Awareness of E-PG Pathshala?

Figure 3 shows that out of 100 respondents, 80 (80%) respondents are aware of E-PG Pathshala, whereas 20, (20%) are not aware of it.

Table 6: Enrollment for any e-learning courses wise distribution

Sl. no	Category	Number	Percentage
1	Yes	16	16%
2	No	84	84%
	Total	**100**	**100%**

Table 9 reveals that out of 100 respondents, 16, (16%) respondents have enrolled for E-learning course from some of the portal. Whereas 84, (84%) respondents have not enrolled for any E-learning course.

Table 7: Portal of Enrolment wise distribution

Sl. No.	Portal name	Number	Percentage
1	Khan Academy	3	18.7%
2	NPTEL	4	25%
3	Coursera	2	12.5%
4	www.class-central.com	3	18.7%
5	edx	2	12.5%
6	WIPO	2	12.5%
	Total	**16**	100.00%

Table 7 shows portal used by the respondents to enroll them in the e-learning course. 3 (18.7%) respondents have enrolled to each Khan Academy and www. class-central.com. 2 (12.5 %) respondents have enrolled to each Coursera, edx and WIPO. And 4 (25%) respondents have enrolled to NPTEL.

Table 8: Courses offered wise distribution

Sl. No.	Responses	Number	Percentage
1	Yes	4	4%
2	No	96	96%
	Total	**16**	100.00%

Table 8 portrays that out of 100 respondents only 4 (4%) respondents have said that their department or departmental colleagues offering E-learning course, 96 (96%) respondents have responded in negative.

Table 9: Future Planning regarding E-learning course offering

Sl. No.	Responses	Number	Percentage
1	Yes	56	56%
2	No	8	8%
3	May be	36	36%
	Total	**100**	**100%**

Table 9 states that out of 100 respondents, 56 (56%) respondents are planning to offer e-learning course in near future from their department. 8 (8%) respondents are not going to offer and 36 (36%) are not sure of it.

Table 10: Attending training wise distribution

Sl. No.	Responses	Number	Percentage
1	Yes	32	32%
2	No	68	68%
	Total	**100**	**100%**

Table 10 depicts that out of 100 respondents, 32 (32%) respondents have got training program on how to conduct e-learning courses and 68 (68%) respondents have not gone through any such program.

Table 11: Frequency of using E-learning tools

Sl. No.	E-learning tools	Frequently Use	Percentage	Sometimes Use	Percentage	Rarely Use	Percentage
1	Video conferencing	4	4%	16	16%	80	80%
2	Emails	84	84%	12	12%	4	4%
3	Search engines	84	84%	8	8%	8	8%
4	Virtual Classrooms	4	4%	24	24%	72	72%
5	Audio/Video tapes	28	28%	48	48%	24	24%
6	WebCT	16	16%	12	12%	72	72%

Table 11 shows the frequency of using different e-learning tools.

- Video conferencing: Out of 100 respondents, 4 (4%) respondents frequently use it, 16 (16%) respondents sometimes use it and 80 (80%) respondents rarely use it.
- Emails: 84 (84%) respondents frequently use it, 12 (12%) respondents sometimes use it and 4 (4%) rarely use it.
- Search Engines: 84 (84%) respondents frequently use it, 8 (8%) respondents sometimes use it and 8 (8%) rarely use it.
- Virtual Classroom: 4 (4%) respondents frequently use it, 24 (24%) respondents sometimes use it and 72 (72%) rarely use it.
- Audio/Video Tapes: 28 (28%) respondents frequently use it, 48 (48%) respondents sometimes use it and 72 (72%) rarely use it.
- WebCT: 16 (16%) respondents frequently use it, 12 (12%) respondents sometimes use it and 72 (72%) rarely use it.

Table 12: Perception towards using E-learning tools

Sl No	Perceptions	Agreed	Percentage	Disagreed	Percentage	No-idea	Percentage
1	I dislike the idea of using e-learning tools	4	4%	84	84%	12	12%
2	I have a generally favourable attitude towards using e-learning tools	92	92%	0	0%	8	8%
3	I believe it will be a good idea to use e-learning tools	92	92%	4	4%	4	4%
4	Using e-learning tools is a foolish idea	0	0%	100	100%	0	0%

Table 12 represents the perception towards using e-learning tools, here we have taken some of the perceptions are

I dislike the idea of using e-learning tools: Out of 100 respondents, 4 (4%) respondents are agreed with this statement. 84 (84%) respondents are disagreed and 12 (12%) respondents have no idea about this.

I have a generally favorable attitude towards using e-learning tools: Out of 100 respondents, 92 (92%) respondents are agreed with this statement. 8 (8%) respondents have no idea and none of them are disagreed about this statement.

I believe it will be a good idea to use e-learning tools: Out of 100 respondents, 92 (92%) respondents are agreed with this statement. 4 (4%) respondents are disagreed and 4 (4%) respondents have no idea about this.

Using e-learning tools is a foolish idea: Out of 100 respondents, 100 (100%) respondents are disagreed with this statement.

5. Findings and Discussions

52% of the total respondents belong to male category. 36% of the respondents are from age group 30-34, followed by age group 25-29 (34%). Maximum response from each department is 4 (4%). Most of the respondents are Assistant Professor (36%), followed by guest faculty (32%). Maximum (96%) respondents are aware of E-learning concept which is very encouraging in itself. Most respondents (76%) are aware of Swayam. More than half of the total respondents (52%) are interested to conduct course through Swayam. Maximum (80%) respondents are aware of E-PG Pathshala. Maximum of the respondents (84%) have not enrolled for any E-learning course. The maximum respondents (25 %) out of the enrolled ones have enrolled for e-learning course are from NPTEL portal.

Most of the department or departmental colleagues (96%) of the respondents are not offering any e-learning course. More than half of the total respondents (56%) are planning to offer e-learning course in near future from their department. Most of the respondents (68%) have not got any training program on how to conduct e-learning course. Emails (84%), search engines (84%) are most used e-learning tools by the respondents. More than 90% respondents are in favor of e-learning concept.

6. Conclusion and Suggestions

Technical ability is not an obstacle when learners are provided with an authentic learning task. In other words, the authenticity of the task and the content of the E-learning system act as a bridge mechanism for exemplifying perceived benefit from E-learning; put simply, the system must be, and must be seen to be, a good way of learning. Organizations can do little to fundamentally alter employees' openness to change, except by fostering a change-friendly environment. Using technology such as E-learning as a supplemental system and allowing it to demonstrate its perceived benefit may alter the intention to adopt. However, it is essential that the system clearly demonstrates relative advantage as the lever for adoption. From the above study a few suggestions have been conclude such as:

1. It is suggested that the department should provide the e-learning courses.

2. The faculty must get enrolled to any e-learning course to understand the concept of it more clearly.

3. The faculty must get training to conduct such type of program.

References

1. Wang, Q., Zhu, Z., Chen, L. & Yan, H. E learning in China. Campus-Wide Inf. Syst. **26,** 77–81 (2009).
2. Ehlers, U. D. Web 2.0 – e-learning 2.0 – quality 2.0? Quality for new learning cultures. Qual. Assur. Educ. **17,** 296–314 (2009).
3. Tai, D. W.-S., Wu, H.-J. & Li, P.-H. Effective e-learning recommendation system based on self-organizing maps and association mining. Electron. Libr. 26**,** 329–344 (2008).
4. Csete, J., Evans, J., Csete, J. & Evans, J. Strategies for impact/ : enabling e-learning project initiatives. (2013). doi:10.1108/ 10650741311330348
5. Sawang, S., Newton, C. & Jamieson, K. Increasing learners' satisfaction/intention to adopt more e-learning. Educ. + Train. 55**,** 83–105 (2013).
6. Boateng, R., Mbrokoh, A. S., Boateng, L., Senyo, P. K. & Ansong, E. Determinants of e-learning adoption among students of developing countries. Int. J. Inf. Learn. Technol. **33,** 248–262 (2016).
7. Romiszowski, A. (2004). How's the e-learning baby? Factors leading to success or failure of an educational technology innovation, Educational Technology 44(1), January-February, 5-27.
8. Piccoli, G., Ahmad, R. and Ives, B. (2001), "Web-based virtual learning environments: a research framework and a preliminary assessment of effectiveness in basic IT skills training", MIS Quarterly, Vol. 25 No. 4, pp. 401-426.
9. Aydin, C.H. and Tasci, D. (2005), "Measuring readiness for e-learning: reflections from anemerging country", Educational Technology & Society, Vol. 8 No. 4, pp. 244-57.
10. Retrieved from https://swayam.gov.in/about. Accessed on 24.04.2017
11. Retrieved from epgp.inflibnet.ac.in. Accessed on 22.04.2017

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