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E-Learning Practices of Higher Education Institutions of Gujarat, India

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Abstract:
Gujarat is home to some of the prestigious higher education institutes of the nation. These institutes are seriously inclined in using the potentials of ICT in the education system out of which e-learning platform is also one. E-learning successful deployment requires a great level of diligence and rigor in its planning, management and implementation and negligence on the part of planning and implementation of e-learning can lead to its under utilization. The present study is an attempt in this direction to study the practices and forms of e-learning available in higher education institutions that are adopting e-learning practices. The sample in this survey study consist of 83 faculties, 153 students and 12 lab administrators belonging to 22 higher education institutions (i.e., 35 colleges) using the e-learning practices. Self developed tools each for faculties, students and lab administrators was used to know about practices and forms of e-learning available in the higher education institutions. The data for the study was collected through personal visits and also through e-mail. Frequency, percentage and intensity index were used to analyze the data. The findings of the study reveal that most of institutions use intranet, most of the institutions are using the basic e-learning practices like intranet and e-mail while the practices like blogs, video conferencing, WBT, chats, virtual classrooms were adopted at a very minimal level in the institutions which are adopting the e-learning practices. Tools like blogs, virtual classrooms, and video conferences are used to a very less extent by the institutions as a part of their blended approach of e-learning. The cause for this could be that either faculty were not aware about how to integrate the use of these forms in their teaching learning process or the nature of content to be transacted is such that it does not demand the use of such facilities. From the data collected, it is very difficult to generalize about the facilities of e-learning that were available in the higher education institutions. The most common available facilities of e-learning were Online Study Material, Online Syllabus. While Assignment Feedback, Tests or Quizzes, Open Forums, Web Seminars and Digital libraries were the least available e-learning facilities.

Keywords: *E-learning facilities, E-learning forms, E-learning, Higher education institutions*

1. Introduction

The system of education is seeing tremendous changes in various dimensions i.e., social dimension, psychological dimension, physical dimension, technological dimension etc. Education is now turning into a partnership business between state, market and community. There are also sweeping changes in technology. The reaching of the unreached is becoming a reality with the revolution of technological advancements. The role of the teachers is changing from transmitter of knowledge to facilitator of learning. The globalization of education is adding fuel to this. All these sweeping dimensions of changes are demanding for the fast and massive changes in the content and also process of education.

Hence, there is a need for designing of suitable technologies to facilitate the learning as per the demands of the society. The myths that the technology is only for elite class and education is only for a fixed period of time in the life are vanishing at a faster rate. The days are changing in such a way that computer literacy along with the literacy of conventional form is becoming must for everyone. Yet, another technological development that has changed the system of education and partly supplementing or even substituting to some extent is e-learning. With the provision of interactive media through chat sessions, news groups, social-networking, e-mails etc, e-learning is proving to be the fastest and cheapest communication. The cell phone revolution is already helping the knowledge flow from all directions where the learner has to choose from knowledge cafeteria. Thus, all these changes are also making the open and distance education to appear on the scene as an alternative to formal face to face learning and thus trying to break the boundaries between formal and distance education. Many virtual universities are already on their way to establishment and are running parallel with formal universities. Thus, we are today in the transition of becoming information societies and a new kind of education system needs to prepare people for the future environment and not the past. The researcher would here like to mention the quotes mentioned by Tiffin and Rajasingham "Like the home and work educational environments, the classrooms might need to permit broadband, fully meshed, fully interactive communication that can be multimedia and address all sensory channels." (Tiffin and Rajasingham, 1995). In an attempt to participate in the educational revolution, many institutions are tending to transform their classroom conventions of pre-established body of knowledge and practices on to the information super highways. They are attracted by commercial interest inherent in the globalization of education, technology push, rather than pedagogical rationale. While powerful clusters of technology are increasingly available, the research feels that it is highly required for researching the actual practices being adopted in these institutions with reference to e-learning.

According to Sherman and Judkins (1992), "most technologies at their outset are considered neutral. It is we the stakeholders who determine how, where and for what they are used. Hence, for the implementation of any new technology, it is essential that there need to be paradigm shift with respect to various institutional level practices like –at management level, it need to create the vision and develop the strategic steps in order to achieve that vision, at pedagogical level, appropriate curricula and methodology need to be developed, teacher training and technical support systems are to be put into place so that teachers effectively integrate technology seamlessly into the curricula. With this background the researcher would like to find answers to the following research questions:

2. Research Questions

- What forms of e-learning are available in the higher education institutions that are adopting e-learning practices?
- What are the various e-practices that are being used in these institution for adopting e-learning?

3. Objectives of the Study

1. To study the forms of e-learning adopted in higher education institutions in Gujarat.
2. To study the e-learning facilities available in the higher education institutions in Gujarat.

4. Research Methodology

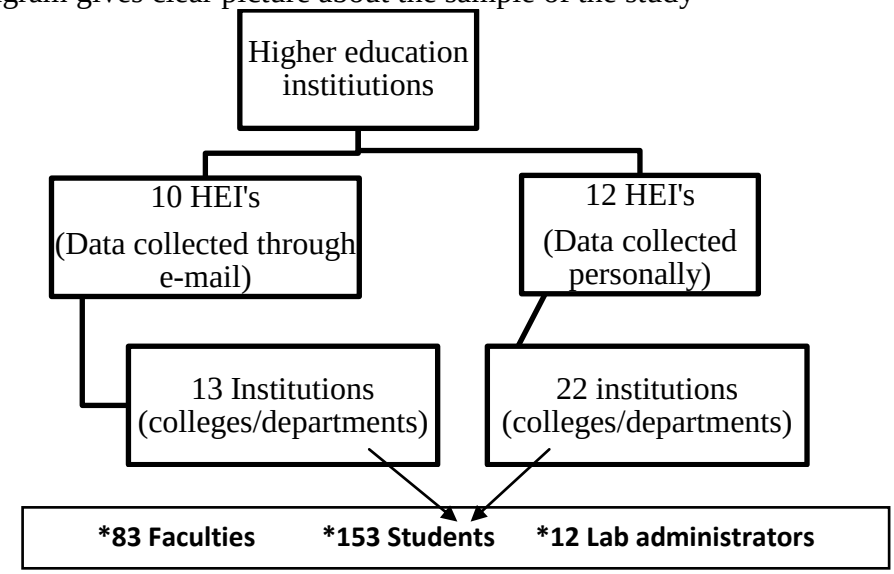
The target group for the study consists of faculty, students and laboratory administrators belonging to the higher education institutions that are adopting e-learning practices in teaching-learning, evaluation, and training etc. The present study is a survey research where the researcher made an attempt to study the e-learning practices of the institutions with references to various aspects like, the forms of e-learning used; opinion of the participants regarding the e-learning practices being adopted in their institutions etc. The methodology meant for survey research was used in the present study which is given as under.

5. Population

The population for the present study consists of all the faculties, students and lab administrators of higher educational institutions of Gujarat which are adopting e-learning practices in teaching-learning, training, evaluation etc.

6. Sample

The following diagram gives clear picture about the sample of the study



7. Tools for Data Collection

Separate questionnaire for students, teachers and lab administrators were developed to collect data from faculty, students and lab administrators. The questionnaires were available in two forms i.e., e-form for the data that was collected through e-mail and hard copy form for the data that was collected personally.

8. Data Analysis

The data collected was analyzed using percentages, frequencies, intensity index etc. Intensity index is the statistical technique used to measure the exact point of intensity preferred by the sample as a whole in a 3 to 7 point of preference against any statement or item. It indicates the exact preference, like, or dislike about a situation in a Likert type of scale. The analyzed data was then synthesized and presented in form of tables.

9. Results and Discussion

9.1 E-learning forms adopted in the institutions

The most used e-learning forms in the institutions which are using e-learning in the blended platform are as follows

Percentagewise Distribution of Faculties and Students Response with Regard to E-Learning Forms Adopted in their Institutions

E-learning Practices Adopted	Faculties	Students
Intranet	66.27	64.71
E-mail	67.47	41.18
Blogs	25.3	24.84
Chats	19.28	16.34
Video Conference	20.48	35.95
CBT	37.35	23.53
WBT	20.48	22.88
Virtual Classrooms	16.87	22.22

The following points related to forms of e-learning adopted in teaching-learning, training, evaluation etc in the institutions can be observed from the above table

-66.27% of the faculties and 64.71% of the students expressed that intranet is used in their institutions as a part of e-learning practices.

-67.47% of the faculties and 41.18% of the students opined that e-mails are used as a part of their e-learning practices.

-25.3% of the faculties and 24.84% of the students responded that blogs are included in their institutional e-learning practices.

-19.28% of the faculties and 16.34% of the students responded that chats are being used in their institutional e-learning practices.

-20.48% of the faculties and 35.95% of students claimed that Video Conference is being used as a part of institutional e-learning practices.

-16.87% of the faculties and 22.22% of the students responded that virtual classrooms are used in their institutions.

Around 63.6% of the lab administrators claimed that they use the basic digital technologies in their e-learning platform. Only a mere 36.3% of lab administrators responded that they use LMS/CMS for providing the e-learning facilities. This scenario is further clear, from the following figure:

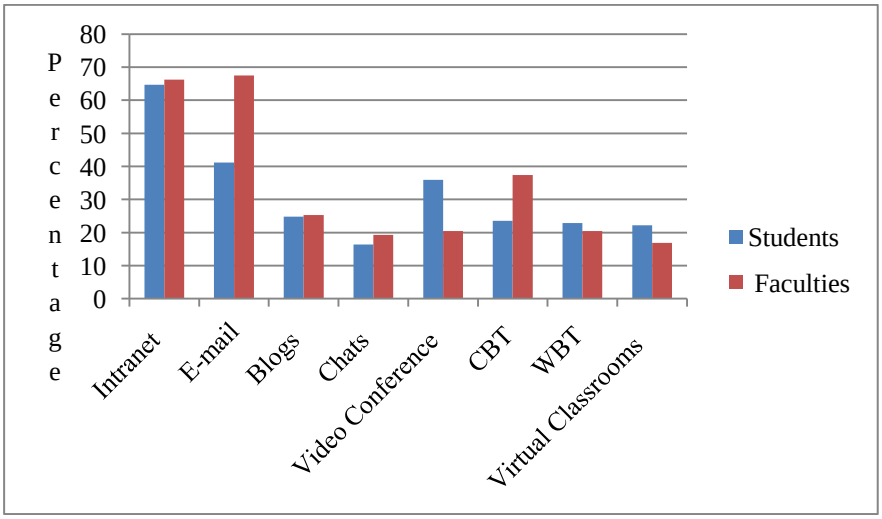


Fig 1: Percentagewise Response of Faculties and Students Regarding the Forms of E-Learning Adopted in their Institutions

From the obtained data it is clear that majority of those claiming to be using e-learning were not using an integrated formal learning management system but were rather using basic digital technologies to enhance their learning. Although it was difficult to generalize from the diversity of responses received, the dominant forms of e-learning in the institutions seemed to be Intranet, e-mail, CBT. This again reveals that the forms of e-learning used in these institutions are still at infancy stage.

10. Points for Discussion

It can be observed that most of the institutions are using the basic form of e-learning like intranet and e-mail. Few institutions are using software like pen starter, turnite etc in their e-learning platform. The faculties are using only basic e-learning practices like e-mails, intranet in their teaching-learning process and also, the least use of tools like blogs, virtual classrooms, and video conferences shows that either faculty are not interested in using the practices or they do not have sufficient expertise to use the e-learning practices or the nature of content to be transacted is such that it does not demand the use of such facilities.

Thus, it reveals that the e-learning practices adopted in these institutions are still at infancy stage.

10.1 E-learning facilities available in the institutions

The following e-learning facilities are available in the institutions that were using various e-learning forms through their e-learning platform:

Table 1: Percentagewise Reply of Students, Faculties and Lab Administrators Regarding Facilities of E-Learning Available in their Institutions

Facilities of E-learning	Students	Faculties	Lab Administrators
Study Materials	83.01	66.27	90.91
Syllabus	56.86	63.86	81.82
Program Information	42.48	25.30	72.73
Examination scheme	22.88	26.51	63.64
Question Banks	28.76	25.30	63.64
Sample Question Papers	32.03	16.87	27.27
E-portfolios	26.14	20.48	54.55
Attendance Records	22.22	34.94	45.45
Results Information	56.86	28.92	54.55
Links to web pages	43.79	42.17	54.55
Assignment Postings	27.45	32.53	54.55
Assignment feedback	7.84	14.46	45.45
Tests or Quizzes	19.61	24.10	45.45
Open Forums	22.22	9.64	36.36
Chats	11.76	9.64	45.45
Application Sharing	13.07	18.07	72.73
Digital Libraries	36.60	37.35	36.36
Web Seminars	13.73	12.05	27.27

Most of the students expressed that Online Study Material (83.01%), Online Syllabus (56.86%), and Results Information (56.86%) are available in their institution. On the other hand, a very less percentage of students i.e., 7.84%, 11.76% , 13.73% and 13.07% respectively mentioned that facilities like Online Assignment Feedback, Online Chats, Web Seminars and Application Sharing are available in there institution. More than 60% of the faculties expressed that the facilities of Online Study Materials and Online Syllabus are available in their institution. Only 9.64%, 9.64%, 12.05% and 14.46% of faculties respectively said that Open Forums, Chats, Web Seminars, and Assignment Feedback are available in their institution. This also shows that even though the facilities were available only very few faculties are aware of it. However, the awareness regarding the facilities available in the e-learning platform is more among the lab administrators than the students and faculties. This could be because in most of the institutions they are the people who manage the technical aspects of e-learning practices. According to the lab administrators, the most available facilities of e-learning were Online Study Materials, Online Syllabus, Programme Information, Application Sharing, Examination Scheme, Question Banks, E-portfolios, Results Information, Links to Web Pages, Assignment Posting. For more clear understanding, the above discussed scenario is presented in the form of figure.

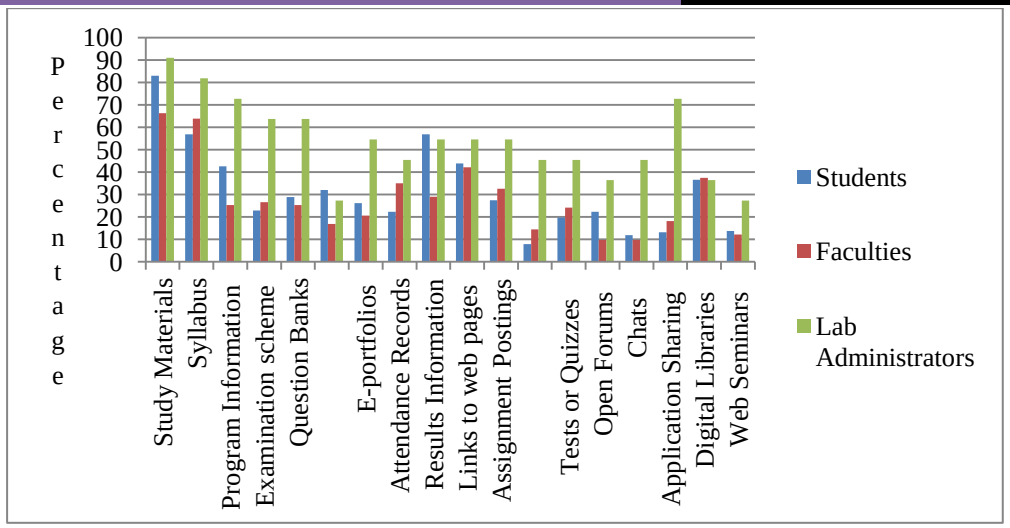


Fig 2: Pictorial View of the Percentage of Response of Students, Faculties and Lab Administrators Regarding Facilities of E-Learning Available in their Institutions

11. Discussion

Many e-learning facilities are available in the higher education institutions but the awareness about these facilities was lacking among the students and faculties. As a result of this, even though the facilities are available in the institutions, they are not being used by the stakeholders. The reason for this could be that the management of the institutions has taken decision on the use of e-learning mainly because everyone else is doing it and no special efforts are made at management level to focus on pedagogical and didactic aspects of e-learning. Another reason could be the lack of proper coordination between the lab administrators and faculties due to which most of the information which is uploaded by lab administrators is not even known to the faculties.

Moving further, in one of the institution that uses e-learning, the investigator saw that the students of the institution developed their self website (www.jagteraho.co.in) where they place all the information like previous question papers, job vacancies, tips for exams, study notes, FAQ's etc which is important for themselves, their seniors and juniors.

12. Content posted in e-learning platform

Around 53% of the faculties responded that the teaching-learning content that is once posted on the intranet was available to the students throughout the year. Around 26.56% of the participants responded that the teaching-learning content that is once posted on the intranet was available for six months. While only 17.18% of faculty revealed that their content posted on the intranet is available to students for one month.

Further regarding the content posted in the e-learning platform (more dominantly on intranet), only 45.1% of students felt that the content posted is developed keeping in mind the needs of students. Only 21.57% of students felt that the use of real time examples was made in the content that was posted on intranet and also only 14.38% of students felt that the aspect of being innovative was considered while developing the content for the e-learning platform. Overall, only 24.84% of students felt that the content posted on the e-learning platform was effective. Around, 36.34% of students felt that the content posted in the e-platform was sometimes an exact Xerox copy of text/reference book. Around 30.22% of students felt that the information posted on the intranet was not updated frequently and 24.84% of students felt that they do not have any scope to clarify their doubts regarding the content that is posted.

The content that is posted on the intranet would be effective only when it meets the needs of the students. However from the above responses it could be seen that, majority of the students felt that the

content that was posted in e-learning platform was not effective. This shows that faculties are not taking any special efforts to develop the content which suits the e-learning platform. The reason for this could be that either the faculties do not know about how to modify the content according to the e-learning platform or the faculties do not have readiness to work in the e-learning environment.

All this shows that, most of the institutions are not able to fulfill the administrative and implementation requirements which are essential for the success of e-learning. If proper attention is not paid in solving this aspect, all the e-learning efforts being made in the institutions would go in vain.

When it comes to the faculty, as high as 79.52% of faculties felt that they keep the students needs in mind while developing the content in e-learning platform. Around 55.42% of the faculties claimed that they make the use of real time examples when they develop the content in e-learning platform. Around 48.19% of the faculties felt that they try to be innovative when developing content for e-learning platform. Approximately, 54.22% of faculties claimed that they considered the aspects like maintaining the course impact and the learning outcomes related to the content when they developed the content in e-learning platform.

Clear discrepancies can be seen in the opinion of the students and faculties with respect to the content posted in e-learning platform. Faculties felt that the content that they are posting on the intranet is according to the needs of students and also felt that they keep all points in mind to increase the effectiveness of content posted on intranet. However, majority of students felt that the content posted on intranet is not at all effective. Such clear discrepancies would surely decrease the overall efficiency of the e-learning practices and hence it is very essential for the institutions to develop a feedback and evaluation mechanisms which will solve such problems. Institutions should organize special trainings to develop readiness in the faculties to use the e-learning platform and also to orient them regarding various aspects which should be kept in mind while developing the content for e-learning platform.

13. Conclusion

When it comes to forms of e-learning, most of the institutions are using the basic e-learning practices like intranet and e-mail while the practices like blogs, video conferencing, WBT, chats, virtual classrooms were adopted at a very minimal level in the institutions which are adopting the e-learning practices. Tools like blogs, virtual classrooms, and video conferences are used to a very less extent by the institutions as a part of their blended approach of e-learning. The cause for this could be that either faculty were not aware about how to integrate the use of these forms in their teaching learning process or the nature of content to be transacted is such that it does not demand the use of such facilities.

From the data collected, it is very difficult to generalize about the facilities of e-learning that were available in the higher education institutions. The most common available facilities of e-learning were Online Study Material, Online Syllabus. While Assignment Feedback, Tests or Quizzes, Open Forums, Web Seminars and Digital libraries were the least available e-learning facilities.

In many of the institutions, the faculties responded that the teaching-learning content that is once posted on the intranet was available to the students throughout the year

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