ROLE OF ICT IN HIGHER EDUCATION

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Abstract: The quality of higher education is a multi-dimensional concept. In era of globalization and higher competition, the concept of teaching has been changing. Teaching and learning process has been dominated by Information Communication Technology (ICT). It lies in effectiveness of transmitting knowledge and skill the authenticity, content, coverage and depth of information, availability of reading/ teaching materials. It helps in removing obstacles in learning process, application of domains, convergence of content and variety. It had made the world in fastest transformation in to global connected community. Initial e-learning systems were based on Computer learning and training. The aim of this system was to replicate autocratic teaching styles into e-learning system for transferring knowledge through Computer Supported Collaborative Learning (CSLI). The education system has realize the demand of the learners and accordingly prepare them self. At the same time it is regret to say that most of the trainer themselves teaches without teaching weapon. Most of them follow the conventional teaching techniques. They are uncomfortable to use technology in teaching learning process. Does the trainer accept this fact? How? , Why? And When? It is the big challenges for the institution and trainer. The researcher tries to understand the e-learning concept, system and view of trainer and trainee regarding e- leaning system.

Index Terms - Information Communication Technology, Computer Supported Collaborative Learning, Audio, Video, Tablets, Blogging, E-Mails, Webcams, Whiteboards

I. INTRODUCTION

The application of Information Communication Technology (ICT) has made the world in fastest transformation in to global connected community. Education is the biggest tool for the social changes and reconstruction of the society. This transformation has been possible only because of new life styles, new learning system and process, modern skill and competency used in teaching learning process.

This drastic transformation has changed the whole perception of education. This has entrusted the role of information seeker and knowledge creator to the learner. Bernard Luskin, was a pioneer of e-learning. As e-learning encompasses multimedia learning which are also called learning platforms, like m-learning, digital educational collaboration, distributed learning, computer-mediated communication, cyber-learning, and multi-modal instruction in India. In today's generations seeking information and learning with various materials to generate new knowledge and use it productively, has become a goal for the today's youth learners. Only imparting knowledge among the learner is not acceptable objective for an educator. Instead of dominating, controlling, imposing authority on the learners has changed. Now the education system is learner oriented. We can say learners are the customer they decides what, when and how to learn. On the basis of above discussion the researcher has formulated the following are the objectives and problems to make study more effective and accurate.

II. OBJECTIVES OF THE STUDY:

The researcher has selected this study with the following objectives:
1. To understand the concept of e- learning.
2. To study various forms of e- learning.
3. To study the today's scenario of e- learning in higher education.
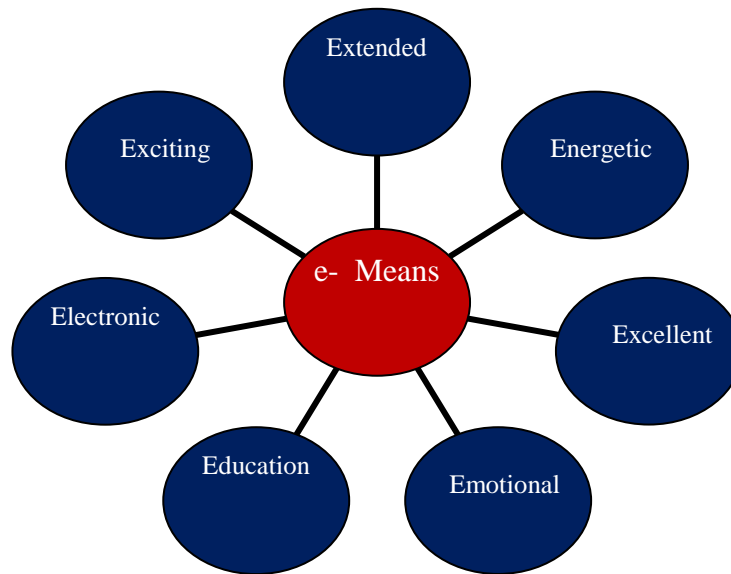
Bernard Luskin: E- interpreted as: above chart

III. PROBLEM OF THE STUDY:

1. *The demand for E- Learning system is high but it is very expensive to make it applicable.*

IV. HYPOTHESIS OF THE STUDY:

1. *There is no significance relationship between demand of E-learning and cost of implementation.*

V. RESEARCH METHODOLOGY:

The study is based on descriptive research aimed at finding the resolution for the stated problem with the help of formulated hypothesis based on techniques availability.

Tools and techniques of data collection:

The researcher has selected Primary as well as secondary source of data collection. Primary source consist of questionnaire method and simple interactive session with respondents. Secondary source of data consists of books, journals, news paper, online journals etc.

Tools and techniques of data analysis:

The researcher has proposed to apply the specific statistic tools as per nature of study. Such as percentage, mean, and Chi Square test etc.

Sample size of the study:

To test the hypothesis the researcher has used questionnaire method. This is asked to the respondent, which consists of trainer and heads.

VI. LIMITATION OF STUDY:

The study is consists of limitations such as geographical, time and response of respondents.

VII. REVIEW OF LITERATURE:

University of Illinois was the first university to apply the computer terminal in 1960 for the student to access informational resources through the linked device like TV and audio device in their study course. Later on many Western University's professor like Patrick Suppes and Richard C. Atkinson has implemented imparting education through computer. Not only the teachers or professors but also many educational institutions also has taken the advantage of the e- learning education by offering distance learning courses using the new technology.

Initial e-learning systems were based on Computer learning and training. The aim of this system was to replicate autocratic teaching styles into e-learning system for transferring knowledge through Computer Supported Collaborative Learning (CSLI). Later on many colleges, university and libraries has implemented it. Many researchers had stated that its application in educational system has positive as well as negative impact.

In 1993, Graziadei described an online computer-delivered lecture, tutorial and assessment project using electronic mail and in 1997 described criteria for evaluating products and developing technology-based courses include being portable, replicable, scalable, and affordable, and having a high probability of long-term cost-effectiveness.

In 1994, CAL Campus has presented its first online curriculum on Internet. It becomes more accessible through major telecommunications networks. CAL Campus concept was based on online-system. It facilitate allowed to progress real-time classroom

instructions and Quantum Link classrooms. With the drastic shift of Internet functionality, multimedia began introducing new schemes of communication; through the invention of webcams. Educators can simply record lessons live and upload them on the website page.

Conference held in Mumbai University in November 2012 has topic for discussion on enrollment of student and role of e-learning in drastic enrollments ratio of the IDOL. Prof. Sonawane Vilas Y. had stated ICT application in education sector enhance the quality of traditional college.

Concept of e-learning:

E-learning refers to the use of technology in learning and education. There are several aspects to describing the intellectual and technical development of e-learning, which can be categorized into discrete areas. E-learning is an inclusive term that describes educational technology. It is not only helps in electronically or technologically but also supports learning and teaching process. It helps in not only focuses on new applications and developments, and also learning and media psychology into consideration. Parks pointed out e-learning as:

1. Everyone
2. Engaging
3. Everything.

As e-learning encompasses multimedia learning which are also called learning platforms, **m-learning, digital educational collaboration, distributed learning, computer-mediated communication, cyber-learning, and multi-modal instruction.**
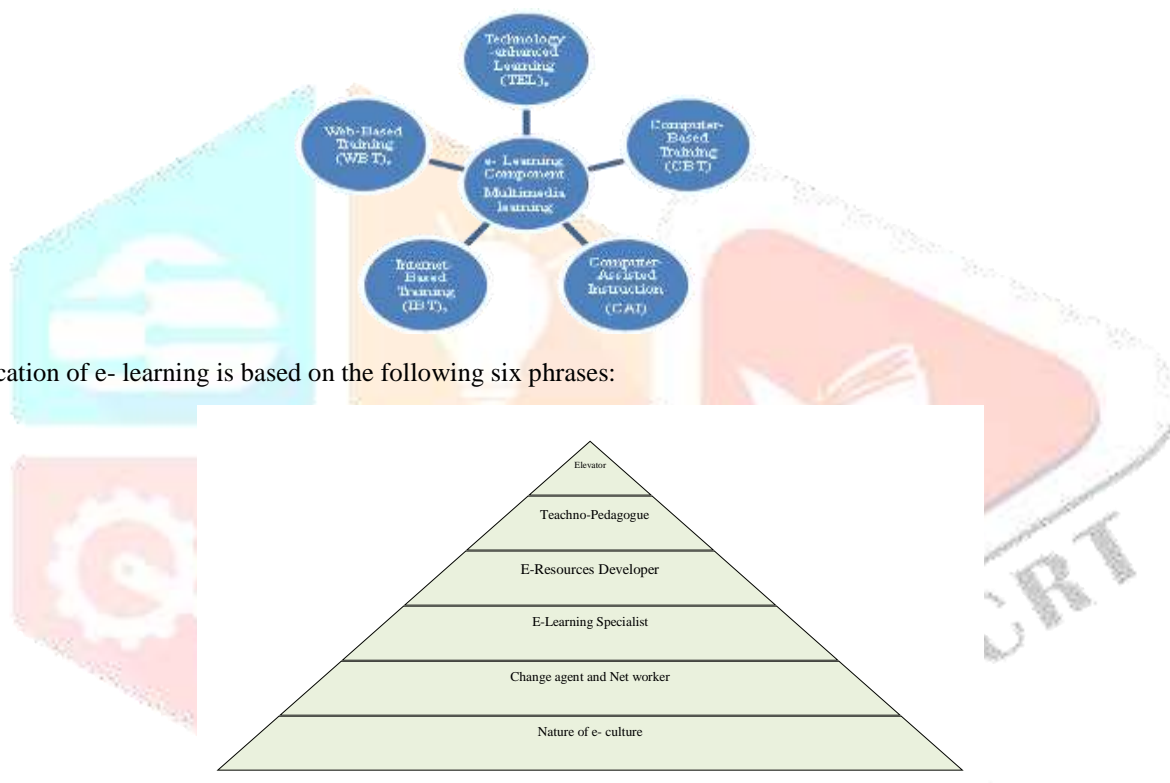
The application of e- learning is based on the following six phrases:

Various technologies are used to facilitate e-learning. Most e-learning uses combinations of these techniques like blogs, collaborative software, e-Portfolios and virtual classrooms.

Audio:

The radio has been around for a long time and has been used in educational classrooms. Recent technologies have allowed classroom teachers to stream audio over the internet. There are also webcasts and podcasts available over the internet for students and teachers to download. For example, iTunes has various podcasts available on a variety of subjects that can be downloaded for free.

Video:

Videos allow teachers to reach students who are visual learners and tend to learn best by seeing the material rather than hearing or reading about it. Teachers can access video clips through the internet instead of relying on DVDs or VHS tapes. Websites like YouTube are used by many teachers. Teachers can use messaging programs such as Skype, Adobe Connect, or webcams, to interact with guest speakers and other experts. Interactive video games are being integrated in the curriculum at both K-12 and Degree colleges.

Computers, Tablets and Mobile Devices:

Computers and tablets allow students and teacher's access to websites and other programs, such as Microsoft Word, PowerPoint, PDF files, and images. Many mobile devices support m-learning. Turkey's Fatih project is putting tablet computers in the hands of every student from grade 5 to 12, and interactive whiteboards in every classroom. Initially when tablet was introduced it was made compulsory for teachers and students to use tablets for teaching learning process, but due to financial constraints it was not practically used in India.

Blogging:

Blogs allow students and teachers to post their thoughts, ideas, and comments on a website. Blogging allows students and instructors to share their thoughts and comments on the thoughts of others which could create an interactive learning environment.

E-Mails

E-Mails play an important role teaching learning process. Just by a click we can send and receive PDF files and can learn by just being at home. We can also share information like creative teachers group and IFRSS group is created to share the opinions, thoughts and comments of teachers on research and other important aspect.

Webcams:

The development of webcams and webcasting has facilitated the creation of virtual classrooms and virtual learning environments. Virtual classrooms supported by such technology. It also provides the benefits in set up.

Whiteboards: Interactive whiteboards is similar to "smart boards" application. It allows teachers and students to write on the touch screen. It makes the learning interactive and engaging.

Screen casting:

Screen casting is a recent trend in e-learning. There are many screen casting tools available that allow users to share their screens directly from their browser and make the video available online so that the viewers can stream the video directly. It gives the presenter the ability to show his ideas and flow of thoughts rather than simply explain them, which may be more confusing when delivered via simple text instructions. With the combination of video and audio, the expert can mimic the one-on-one experience of the classroom and deliver clear, complete instructions. From the learner's point of view this provides the ability to pause and rewind and gives the learners the advantage of moving at their own pace, sometimes a classroom cannot always offer.

VIII. TESTING OF HYPOTHESIS:

Interpretation:

The chart shows the number of respondents and the view regarding different aspect of e-leaning in higher education system and their view pertaining to above question asked in discussion. The researcher has selected 100 respondents from different education sectors.
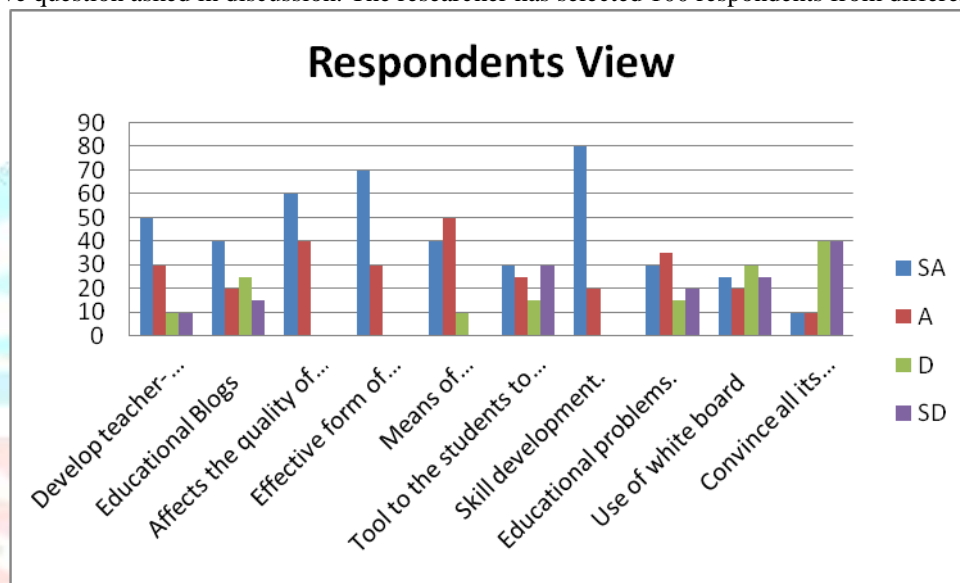
1. 50% respondents strongly agreed that e-learning develops teacher-student relationships and 10% respondents disagreed with this statement.
2. 40% strongly agree and 25% disagree that Educational Blogs are the best way to connect many students at a time.
3. Online learning affects the quality of education 60% strongly agree and 40% agree.
4. Web-Based training is effective form of training 70% & 30 % agree to that.
5. Online teaching can provide a boarder means of communication 40% strongly agree, 50% of respondents agree and 10 % of respondents disagree.
6. E-Learning provides tool to the students to enhance career equal respondents agree and disagree.
7. E-learning helps in skill development and 80% strongly agree, and 20% agree to that.
8. E-Learning cannot solve many of our educational problems 30% Strongly Agree, 35% agree, 15% agree, and 20% strongly disagree.
9. Use of white board in teaching-learning process is effective and 25% strongly agree, 20% agree, 30% disagree and 25% strongly agree.

It is possible for India to convince all its institutions to use E-Technology 40 Disagree and 40% strongly disagree and only 10% agree with that statement.

IX. DATA ANALYSIS:

Statements	SA	A	D	SD	Mean	Std. D
Develop teacher-student relationships.	50	30	10	10	25.00	19.15
Educational Blogs	40	20	25	15	25.00	10.80
Affects the quality of education.	60	40	--	--	50.00	14.14
Effective form of training.	70	30	--	--	50.00	28.28
Means of communication.	40	50	10	--	33.33	20.82
Tool to the students to enhance career.	30	25	15	30	25.00	7.07
Skill development.	80	20	--	--	50.00	42.43
Educational problems.	30	35	15	20	25.00	9.13
Use of white board	25	20	30	25	25.00	4.08
Convince all its institutions to use E-Technology	10	10	40	40	25.00	17.32

INTERPRETATION OF ABOVE DATA ANALYZED:

i. The study show that 50% respondents in the favour of that e- learning develop teacher-student relationships at the same time std. deviation (19.15) shows respondents can vary their perception regarding this statement.

ii. The study show that 50% respondents in the favour of that Web-Based training is effective form of training and std. deviation (10.80) shows respondents it shows that respondents are agree with the statement.

iii. The study show that 100% respondents in the favour of that Affects the quality of education and std. deviation (14.14) shows respondents are agree with the statement. It is comparably low variation.

iv. The study show that 100 % respondents in the favour of that Effective form of training and std. deviation (28.28) shows respondents are agree with the statement. It is comparably high variation.

v. The study show that 33.33 (mean) respondents in the favour of that Means of communication and std. deviation (20.82) it shows that respondents are agree with the statement. It is comparably high variation.

vi. The study show that 25 (mean) respondents in the favour of that Tool to the students to enhance career and std. deviation (7.07) it shows that respondents are agree with the statement. It is comparably high variation.

vii. The study show that 50 avg. respondents in the favour of that e- learning helps in Skill development and std. deviation (42.43) shows respondents are agree with the statement. It is comparably very high variation.

viii. The study show that 25 avg. respondents in the favour of that e- learning helps to solved Educational problems and std. deviation (9.13) ,it shows that respondents are agree with the statement. It is comparably relatively low variation.

ix. The study show that 25 avg. respondents in the favor of that e- learning made use of white board in teaching-learning process is effective and std. deviation (4.08) shows that respondents are agree with the statement. It is comparably very low variation. It indicates that most of the respondents are more concerned with teaching – learning process with white board.

x. The study show that 25 avg. respondents in the favour of that the application of E- Tech in higher educational system is convent and std. deviation (17.32) shows respondents are agree with the statement. It is relatively high variation. It indicates that implementation of E- Tach in education affected by several factor.

X. FINDINGS:

The study showed that E-learning is demand of today era but at the same time it is expensive to student, teacher as well as institution to implement. The researcher comes across that most of the respondent in the foavor of it. And with other sources researcher find that B – School, IDOL, most of the institution using it. It means null hypothesis has been accepted by researcher.

XI. CONCLUSION:

Today's scenario reflects on the kind of teacher in a certain learning institution who had been singled out to teach according to demand of institution. A teacher who lacks the skills in teaching, most especially in strategies and techniques of teaching, is a teacher who needs to bolster up his savvy as well as in-service-training and who needs to uplift his standards of teaching. Quality of education is very important not only for the students, but also for the teachers. In order to upgrade the quality of learning process the current situation demand new technology to cub this gap. The emergence of e-learning is debatable. It is one of the most powerful tools available to fulfill growing need for education. The need to improve access to education opportunities allowed students who desire to pursue their education but are constricted due to the distance of the institution to achieve education through "virtual connection" newly available to them. Online education is rapidly increasing and becoming as a viable alternative for traditional classrooms.

As per the study researcher found out that majority of the respondents are in the favour of E- learning implementation which helps in socializing, career and skill development of student, quality of teaching learning process at the same time they were not supporting the views like E-learning solves educational problem, use of white board, and complete application of E-learning.

Hence it is educators responsibility to realize the demand of the learners and accordingly prepare them self. At the same time it is regret to say that most of the trainer themselves teaches without teaching weapon. Most of them follow the conventional teaching techniques. They are uncomfortable to use technology in teaching learning process. Does the trainer accept this fact? How? , Why? And When? It is the big challenges for the institution and trainer. The present and forthcoming challenges of education system to develop the ICT or e-learning based teacher education programme. Hence application of e-learning is demand of today's era and we need to fulfill it.

XII. REFERENCES:

1. Sonawane Vilas Y. "Role of ICT in Quality Enhancement in Higher education in traditional college" ISSN: 2319-4766.
2. Hotkar Janardan Sidram, "Perception of teachers and students towards e- Commerce" ISSN: 2319-4766.
3. David R. Woolley "PLATO: The Emergence of Online Community."". Thinkofit.com. Retrieved Nov, 2013
4. Graziadei, W. D(1997), "Building Asynchronous and Synchronous Teaching-Learning Environments: Exploring a Course/Classroom Management System Solution"
5. "Learners, mature."CAL Campus - About." Accredited Distance Learning Courses". Calcampus.com. 12 February 2013. Retrieved Oct, 2013.
6. Shiao, Dennis. "Why Virtual Classrooms Are Excellent Learning Venues". INXPO. Retrieved May, 2013.
7. Screencasting "Teaching and Learning Innovation Park". Ipark.hud.ac.uk. Retrieved Oct, 2013.
8. Tarasowa, Darya; Darya Tarasowa, Ali Khalili, Sören Auer, Jörg Unbehauen (2013). "CrowdLearn: Crowdsourcing the Creation of Highly-structured E-Learning Content". 5th International Conference on Computer Supported Education CSEDU 2013.
9. "Blackboard International | EMEA". Blackboard.com. Retrieved Oct, 2012.
10. Dennen, V. P., & Bonk, C. J. (2007). Bonk and Dennen-b.pdf "We'll leave the light on for you: Keeping learners motivated in online courses".
11. Ahmad, Zameer (November 16, 2010). "Virtual Education System (Current Myth & Future Reality in Pakistan)". Ssrn.com. Retrieved Oct, 2013.
12. Dalsgaard, Christian. "Social software: E-learning beyond learning management systems". eurodl.org. University of Aarhus. Retrieved March 2013.
13. "Strengths and Weakness of Online Education." Illinois University. 2 May. 2008.www.ion.uillinois.edu/resources/tutorials/overview/
14. Bocchi, J. et al. (May/June 1999), Technology-Enhanced Learning in Industry and Higher Education: Preliminary Report on a "Gap" Analysis. The Technology Source.