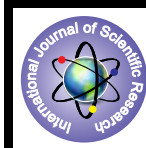


## E-Learning: the Technology Enhanced Learning (TEL) Makes Learning Easier And Flexible



### Computer Science

KEYWORDS :

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#### Introduction :

An E-learning process involves the use of electronic media and information and communication technologies in rendering the education. E-learning is mainly a collection of all forms of training and educational technology in learning and teaching. E-learning is inclusive of, and is broadly synonymous with multimedia learning, technology-enhanced learning (TEL), computer-based instruction (CBI), computer-based training (CBT), computer-assisted instruction or computer-aided instruction (CAI), internet-based training (IBT), web-based training (WBT), online education, virtual education, virtual learning environments (VLE) (which are also called learning platforms), m-learning, and digital educational collaboration. All the above alternative terms focus on a specific subject/component or rendering ways of training and education.

In E-learning makes use of various types of media which helps to deliver text, audio, images, animation, and streaming video, and includes technology applications and processes such as audio or video tape, satellite TV, CD-ROM, and computer-based learning, as well as local intranet/extranet and web-based training and learning. It uses of information and communication systems, stand alone or based on either particular local networks or the Internet in networked learning, The process of e-learning can take place in or out of the classroom. It can be self-paced, asynchronous learning or may be instructor-led, synchronous learning. E-learning is suited to distance learning and flexible learning, but it can also be used in conjunction with face-to-face teaching, in this case its termed as learning. It is commonly thought that new technologies make a big difference in education. In e-learning its believed that everyone must be supported with basic knowledge of technology, as well as use it as a means of achieving educational objectives. E-learning is a broadly inclusive term that describes training and educational technology that electronically or technologically supports learning and teaching. Bernard Luskin, a pioneer of e-learning, advocates that the "e" should be interpreted to mean "exciting, energetic, enthusiastic, emotional, extended, excellent, and educational" in addition to "electronic." This broad interpretation focuses on new applications and developments, and also brings learning and media psychology into consideration Parks suggested that the "e" should refer to "everything, everyone, engaging, easy".

So, as to whether a particular element or rendering method is given weight-age, a number of similar or overlapping terms are been used. As that of, e-learning encompasses multimedia learning, technology-enhanced learning (TEL), computer-based training (CBT), computer-assisted instruction (CAI), internet-based training (IBT), web-based training (WBT), online education, virtual education, virtual learning environments (VLE) which are also called learning platforms.

E-Learning is not a cheap option and it will only succeed if there is a synergy between educators, instructional designers, curriculum developers, learning technologists, graphics designers, publishers etc. to produce good quality learning materials adhering to recognized standards that can be delivered to the student in a timely way. There is no point in investing money in expensive video productions if the student receiving the information is sitting on the end of a 28K modem.

#### To Address The Issues:

**E-learning assists in tackling some of the issues which can be focused as below:**

- ❖ to resolve the barriers like Place, Pace, Time
- ❖ to broaden participation - removing distance barrier

- ❖ to enhance the usage of ICT tools –in helping for learning and physical disabilities
- ❖ to customize learning as per individual requirements.

#### To Bring Standards

To have a potential e-learning and to succeed, it calls for standardization of the process. Where as it stresses upon the proper implementation and migration of present training and delivery of education, rich course materials into the e-learning skeleton. This can be achieved as Study Course – Contents – Objectives –Units – Contact Sessions –Learning Sessions. In conventional face-to-face teaching the units might be divided into 10 hours of lectures, additional activities and assessment. In the e-learning environment there is not a concept of a "lecture" and if it were to be tempted to display lecture notes online. One certainly shouldn't think of giving one hour speech on the material displayed. Also, it is important to take the course materials and rearrange them into suitable sessions which are constructed from learning units. Here a learning unit is an activity may involve reading, listening, assessing, writing. An unit may encompasses:

- Elements of learning,
- Process of assessment,
- Revealing resources

These learning units has contact sessions, learning sessions, which by focusing on elements can be delivered in a right perspectives.

#### Merits of e-learning:

Following aspects include the benefits of the process:

- **Convenience of A4 e-Learning - Anytime, Any Place, Any Pace, Any Subject:** e-learning resource materials can be accessed at any convenient time for the learning, if the course material is well constructed then learning can take place in short segments and can be customized to suit the learner's requirements.
- **Enhancement :** in e-learning Students are having the control of on their own learning.
- **Most Flexibility:** e-learning material can be accessed in any sequence , allows students to navigate content in different ways, or obtain a global view before going to the details of each units.
- **Most Cheaper:** more number of students can have access to the same materials but can be supported by peer-to-peer or student-to-tutor support services thus reducing the cost of delivery.
- **Recent Content:** Course content is located in one place so it can be easily updated and can provide direct links to supporting materials such as Internet and library resources.
- **Customized Learning:** the time needed to learn a particular topic or skill is reduced or "compressed" as learning can be modified to suit the users needs and requirements. Elearning can provide a variety of learning experiences including interactive elements.
- **Easy to memorize:** the smaller and more relevant the learning is the easier it is to capture and remember.
- **Socio-inclusive:** students can learn in a relatively anonymous environment without the embarrassment of failure and/

or socio-cultural bias from personal contact.

- **Most Consistent:** all students get the same standardized set of materials.
- **Most Interactive:** well constructed materials will have elements of interactivity through simulations etc. which will underpin and enforce the learning.
- **Group support :** The use of groups and teams working together in collaborative learning and learner-learner interaction enforces employability skills.
- **Monitoring and tracing Student Performance:** student usage of the materials can be monitored and early potential drop-out can be detected and given remedial support.
- **Used to Facilitate understanding:** of concepts by offering alternative ways of visualizing materials and alternative explanations to those given in a single delivery mode such as a lecture, seminar or tutorial (for example, multimedia and hypermedia).
- **Monitoring Instant feedback:** from online self-assessment or formative assessment particularly through multiple choice question formats.
- **Easier for Self Assessment:** students can be offered automatically-marked self-assessment exercises to identify skill/knowledge levels and learning needs before engaging with course content.
- **Used to assist students with certain Disabilities:** Access for students with hearing and some physical disabilities may be enhanced.

#### Demerits of eLearning

E-learning can be witnessed with following disadvantages:

- **Dependent of Technology:** learners will need access to a machine of minimum specification as dictated by the e-learning supplier or access to a service with a high bandwidth to transfer the course materials in a timely way.
- **Material Incompatibility:** some materials designed for one particular system will not function properly on another (for example, the Apple Macintosh and the Windows PC). Standards will help in the area.
- **Not use-full in Certain Types of Training:** any skill that relies heavily on inter-personal contact although these courses could be supplemented by e-learning.
- **Not supporting for Certain Types of Learners:** elearning requires a high-level of self-discipline and personal time management. E-Learners need to be highly self-motivated to take full advantage of the medium as often the online learning experience can be impersonal. Working through 'packaged' programmes can be irritating.

- **Based on Quality of the Content:** it is too easy for some institutions to defer the photocopying costs onto the learner by placing all lecture notes and course handouts online. Such practices often mean that the course materials are in an inappropriate format for online learning. Course providers need to develop new technical skills and course design skills to suit the new medium.
- **Expensive:** start-up cost of an e-learning service is expensive and the cost of production of online training materials is very high. Teachers must be confident that the extra costs are balance with the benefits of delivering a course online. Significant time needs to be invested in course set-up and in ongoing maintenance (checking links, updating course content etc.).
- **Dependant on Human Support:** e-learning is still dependent on help on either the course materials or the software.
- **Social/economic disadvantage:** can limit or prevent access by some student groups (for example, cost of equipment, online access and printing).
- **No Match for Face-to-Face Teaching:** Electronic communication does not necessarily provide a good match for face-to-face communication and is more linear than face-to-face discussion.
- **Mostly dependant on IT Skills:** learners may have limited IT skills, or be uncomfortable with electronic communication and need to learn how to use the medium effectively.
- **No support for Disabilities:** Students with visual or physical impairments may be disadvantaged.
- **Not so flexible:** Flexibility may be lost as adjustments to the course in response to student reaction are not easy to make once the course is underway.

#### Conclusions

To sum up, we find there some positive signs in the e-learning arena: an increasing number of institutions are stepping ahead, at the transition from on-line delivery to on-line learning, that is the growth in on-line learning courses and teaching at all levels is progressing. This is where we are evidencing, there is an increase in culture of supporting innovation in teaching and learning methods. The focus on e-learning is boosting in the areas like vocational sector, technical sector as well as other sectors too.

The different opportunities for collaborations between sectors are being exploited and will continue to develop as the 'gap' between sectors diminishes - where institutions are prepared to research the market and invest, there are clear opportunities in the commercial sector, but institutions must be realistic and focused. It seems apparent that there will be an expansion in the range of partnership opportunities that become available. Ref: Dr. Richard Mobbs, University of Leicester

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