

# eLearning

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## ABSTRACT

eLearning is a new tool which has the potential to enhance and support the traditional learning system and already it is becoming an integral part of the learning tools used by every educational organization.

## 1. Introduction:

The learning process needs techniques and tools to present the knowledge (from different resources), interact with it and share it with others. In this context, eLearning is becoming an important tool to support the learning system to achieve its goals. eLearning became hot topic in the 1990's after the spread of the Internet. Although it has a relative short history, it is becoming an important part of the learning. The majority of the universities adopted some kinds of eLearning within its learning system.

Generally, the internet is new media, it has been spread in 1990's, furthermore, the E-learning is very recent tool, and so this sector needs more and more researches.

E-learning, like many terms in cyberspace, does not have current definition which can be accepted by all. Some terms which are frequently interchanged with E-learning include:

- Online learning/ education
- Distance education/ learning
- Technology-based training
- Web-based learning/training
- Computer-based training/learning from a CD-ROM.

The researchers can find many definitions of E-learning much more than what they expected because E-learning is becoming very interest to many.

Also we find a specific definition, "E-Learning: the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration."

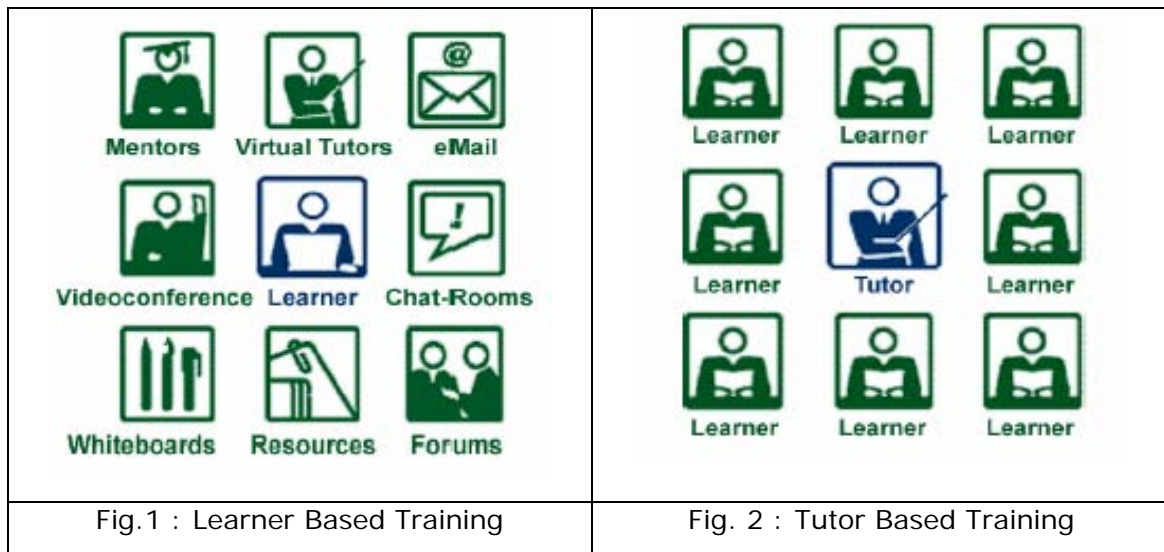
We will not argue in our research, if using audio or video tape, satellite TV and CD-ROM are part of E-learning or not. Anyway those tools already are used and will be used as a part of E-learning or beside it to support learning in both traditional and open universities. However, our research will not study the using of those tools; rather it will focus on the internet-based side of the E-learning solution.

Therefore, we can consider E-learning in our research as an umbrella that cover learning almost anytime, anywhere (asynchronous) on a computer, usually connected to a network.

But the question is: does the E-learning intend to replace the traditional Learning mode?

E-learning is not intended to replace conventional methods of training such as classroom teaching. Its aim is to create an augmented learning environment where technology is used to deliver a combined range of teaching techniques aimed at maximizing the individual's participation in the learning process.

E-Learning can be focused on different points of view referring to different kinds of learning and teaching as outlined in figure "1" and figure "2".



## 2. The E-learning: Advantage and Disadvantage

In this section, we state some advantages and disadvantages to the Learner, tutor and organization of E-Learning (Asynchronous and synchronous) when compared to traditional learning:

### 2.1 Advantages

The major advantages are the flexibility, reduce time and cost. A detailed list of these advantages is described as follows:

- **Flexibility, Convenience and Accessibility:**

- Easy and Quick accessibility any time any where.
- Option to select learning materials from increased quantity of courses offered online which the learner need and interest.
- Easier distribution of the courses materials via E-learning.
- Immediate feedback when using online homework, quiz, and testing.
- Easy and quick reviewing, updating, and editing Learning materials needs.
- Easy accessing various resources.
- Self-pacing, the asynchronous way, allows each student (slow or quick) to study at his own pace and speed so it increases satisfaction and reduces stress.
- E-Learning presents different styles and facilitates learning through a variety of activities.
- Easy to join bulletin board discussions any time, or visiting classmates and instructors remotely in chat rooms.
- It can provide stronger understanding and increase retention on the subject, due to using many elements which exist under e-learning, e.g. multimedia, quizzes, interaction...etc and the ability to retry / replay training parts over and over in order to understand it.

- It can be easily managed for large groups of students.
- Easy to make student-tracking systems, because students complete their learning while they are connected to the network.
- **Time:**
  - Save the time, because E-learning reduces travel time.
  - Any time, so the learner can schedule his classes and learning activities around his family and his work.
  - It moves faster - because the students can skip activities or materials they already understand and jump to new issues.
- **Money: Reduced overall cost – it reduces:**
  - The cost of: Travel, lodging and meals.
  - Production and distribution the course materials, guides...etc.
  - Office-building fees and instructor's salaries.
  - The waste of employee work time.
- **Communication and Interactivity**
  - Possibility of communication and interactivity between students and supervisors in online courses.
  - Students can study in any place where they have access to a computer and Internet connection.
  - The interaction among instructors and students is better in e-learning than in courses in large lecture.
  - The interactivity engages students by pushing them rather than pulling them through training.

## 2.2 Disadvantages

There are some disadvantages or limitations as well.

- It requires technology infrastructure which may be not be available in some countries.
- Bandwidth limitation, or slow Internet connections, which can affect the ease of the learning process, because, it causes weak performance for multimedia: video, sound and graphics, as well as long waits for download.
- Increased costs for initial development, because the greater portion of the costs associated are start-up costs.
- Some students' might get lost or confused about learning activities.
- Some students might feel lonely and isolated from their instructor and classmates
- Not all courses can be delivered online, while some others courses require a more personal touch so it is not delivered well by the computer.
- Some times the instructor is not available when the students need his help (in real time mode).
- It requires computer skills and some times files and software management of online learning, which could be complex for beginner students.

- Some work labs are difficult to simulate in a virtual classroom
- Lack of human contact or face-to-face (f2f) interaction with the instructor and other classmates.
- Some students may fail due to bad study habits or low motivation.

### 3. Models of ELearning

There are two models of eLearning; synchronously and asynchronously:

- Synchronous eLearning: means that all students and instructor are logged on at the same time and communicate directly and virtually with each other, "where all the students must be in the classroom at a certain time for the class to start. Synchronous eLearning events include live web-casts, chat rooms, application sharing, and whiteboard sessions.
- Asynchronous eLearning: In this model, the communication between participants does not occur simultaneously. Where "the learning content or courseware is served from a Web server and delivered on demand to the learner's workstation, Learners can thus take courses at own pace. Courseware is normally available to learners 24 hours per day, 7 days per week". Examples of this model includes; taking a self-paced course, posting messages to a discussion group. Some times it called "distributed learning" and it receives more attention because of its lower cost of development, reusable components, and convenience to the learner.

Our university can use mainly the Asynchronous eLearning and some tools of Synchronous eLearning (e.g. chat, instant messages ...etc.), because they are very hard to adopt the pure synchronous eLearning; due to the following reasons:

- Students rarely have compatible schedules to permit real time sessions.
- The synchronous technologies are still too expensive.
- The majority of students do not have fast Internet, most of them use telephone dial-up which can not use the synchronous tools effectively.

### 4. TYPES OF ELEARNING APPROACHES:

There are three types:

1. Enhanced approach: the eLearning solutions used to support, facilitate and enhance the f2f learning by using web-based technology, e.g. Course management systems. Even if this approach can reduce some academic seat time (f2f), the reduction must be no more than 24%, the majority of the offered eCourses in TPUs are of this kind.
2. Blended approach: this kind mixes traditional f2f and online learning, consequently, substantial portion of content is delivered online; typically this approach can reduce 25 to 74% of f2f meetings.
3. Online approach: it uses the virtual learning (VL), which can be realized without any need to f2f meeting, however, this approach could have some f2f meeting, e.g. for exams, but more than 75% of the course content is delivered online.