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**AN ANALYSIS OF THE EFFECTIVENESS OF E-LEARNING IN CORPORATE  
TRAINING PROGRAMS**

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**Abstract:** *There is a disagreement that traditional learning is the best way of maintaining a learning process. Other models are always considered to be lower or less efficient. There is no finding to support this argument, and research shows that eLearning models are at least as good as traditional learning. Therefore, eLearning includes advantages which are not found in traditional learning, such as: time for digesting the information and responding, enhanced communication among the learners, both as regards quality and as regards urgency, knowledge being acquired and transferred among the learners themselves. The ability to conduct an open discussion, where each learner gets more of an equal standing than in a face-to-face discussion, access to information and to discussion ability, responses may be made around the clock with no restrictions, a higher motivation and involvement in the process on the part of the learners. Most corporations are constantly looking for lower cost methods to deliver training to their participants with maximum quality. E-learning is less expensive than traditional classroom instruction, but the quality to deliver training most often is degraded. Achieving both of the two objectives namely, cost and quality is not an easy task since the two objectives conflict with each other. Indeed, selecting E-learning or traditional classroom or a mix of them should be based on some criteria. An investigation and analysis to deliver training is made in order to deliver training at an optimized cost and quality according to the criteria that can be determined in this study.*

**Keywords:** *e-Learning, corporate, quality of service, economic benefits*

## **I. CHAPTER I**

### **1.1. Introduction**

The philosophy of e-learning is to provide an opportunity for all to learn; the learner according to his abilities and potential, and to work to achieve the principle of equal educational opportunities for all learners without discrimination, as well as a learning portal to students living in remote areas, also to provide an opportunity for students with disabilities and those with special needs access to an education according to their potential, according to the rate appropriate for each individual student.

E-Learning tools have contributed to the emergence of modern methods and techniques of teaching and learning [7], including Virtual learning. This development in the field of education is due to the revolution of Information and the development by means of communication and IT.

E-Learning provides a lowered cost but may also provide reduced quality. This problem has been investigated by many studies [1, 4, 7], but still has room for improvement. In this research we

aim at delivering training courses with minimum cost and maximum quality. The two objectives namely the cost and quality conflict with each other. Thus, we need to provide more investigation and analysis in order to achieve both objectives simultaneously. The analysis focuses on the criteria that play a major role in delivering courses aimed at maximum quality. This research answers the following questions:

- What are the criteria that influence quality for delivering training courses?
- What is the most important criterion that influences quality for delivering training courses?
- How we can use this criterion to achieve both cost and quality objectives?

## 1.2. Related Work

The emergence of e-learning comes mainly from the exposure of information and knowledge, and the need for an engineering capability nowadays. E-learning provides such capabilities to improve teaching quality and to meet new requirements [1]. Consequently, quality of classroom teaching determines quality of talent training directly [2]. The goal of e-learning is to overcome the barriers of time and distance by automating the education process [3]. Since e-learning is a computer and web-based technology, there are many information systems that support the e-Learning process [4, 5, 6]. These technologies include: automation, management, integration, and development; which results in improving the e-Learning process and creating an innovative course content with reduced cost. It is clear that education tends towards e-learning because of various reasons as discussed above. Nowadays, many researches address almost all e-learning requirements, ranging from the planning process, right up to feedback after execution, including computer technologies, networks, information systems, course materials, methods, tools, trainers and trainees. As a result, many educational institutions adopt e-learning with success. However, there is still room for researches to enhance e-Learning, taking it to a new level.

## II. CHAPTER II

### 2.1 Comparison of e-learning and Traditional Education

As discussed above, there are some advantages and disadvantages for both e-learning and traditional education as shown in the following table [1,3]. So, eLearning has some advantages over the traditional education, but the main problem is that there are some types of courses that require the existence of the instructor as in traditional learning [1]. Intuitively, the courses that require some practice and more explanations such as Physics may require the physical existence of the instructor in order to deliver the courses in an efficient way that can be more understandable. Therefore, the hybrid approach provides a good solution since it is a mix of both traditional and eLearning to deliver such courses, but the problem is how to use the hybrid approach effectively, and how to determine the criteria that force using the approach in order to improve quality for delivering the course?. The answer to these questions is shown in the next sections.

Criteria	E-learning	Traditional Education
Interaction	Enabling the use of multimedia to the learner, navigate the electronic presentations, dealing with it as the learner wants, allowing him interactive discussions across the web.	Does not rely on web interaction, as it is only between the instructor and the learner, and it is not always between the learner and the book.
Expandability	Can be updated easily to keep information current.	Difficult to update and requires more time and cost
Availability	Available at any time and any place, where trainers can access the internet from anywhere, so the course content is available throughout the world.	The time and place are specified and thus opportunities are limited for education which is required in remote regions or areas.
Responsibility for learning	Depends on self-education, where the learner learns according to his abilities and interests, according to the time that suits him.	Depends on the trainer who may not be available at any time.
Implementation	Require experience and knowledge for both instructors and trainers	Simple to implement

## 2.2. Maximize Quality for Delivering Courses in eLearning

Many training and education organizations are willing to use eLearning to deliver training courses in order to reduce cost and to increase quality. Most often the quality of delivering courses may be degraded in eLearning due to some reasons. There are many criteria that affect the quality of delivering the courses such as: nature of the course, eLearning knowledge, Students and instructors' motivation, cost, distance, IT changes, etc ...; some of these criteria have been investigated by many researchers, but the first criterion namely the nature of the course has not been investigated very well. Indeed, this criterion has the most impact to the eLearning process.

Since there is a close relation between the nature of the course and delivering the course in high quality, the course nature can be analyzed in order to decide how to deliver the courses in a hybrid approach. Since the hybrid approach contains both eLearning and traditional classroom instruction, we should determine to what extent the courses can be delivered by eLearning and to what extent the courses can be delivered by traditional classrooms. Herein, we consider all the criteria that influence eLearning especially the nature of the course. Indeed, courses that need experiments, laboratories, and some kind of explanation should have attention in eLearning. Therefore, building course content should consider such kind of courses and design the courses content in a way to deliver each topic accordingly.

## III. CONCLUSION AND FUTURE WORK

eLearning provides a feasible approach for delivering courses in academia and cooperation in which the cost is reduced and the quality is increased. In some kind of courses, the quality may degrade due to the need of the existence of the instructor. Thus, the hybrid approach is used to solve this problem, and we aim to conduct more analysis and investigations to find out the criteria that improve the quality for delivering the courses in a hybrid approach.

The criterion that improves the quality for delivering the courses include: nature of the course, eLearning knowledge, students and instructors' motivation, cost, distance, IT changes, etc .... We concluded that the nature of the courses can play major role in order to decide whether to deliver the course by: traditional, eLearning, or hybrid.

We plan to extend our study in the future to increase the analysis of the course contents and research to produce guidelines that can be used to determine the best way for delivering courses; and to determine the exact percentage of courses for which the hybrid approach has been selected. For example, if the course Physics can be delivered by hybrid choice, then what is the percentage value of each type? Let's say: 30 percentage of the course is delivered by traditional and 70% can be delivered by eLearning according to its contents and topics. Our work and future work can provide guidelines to the course content designer and instructor for designing course contents and the best way to deliver the content.

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