



## The form of the home page and the objectives of the E-learning environment as design criteria

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### Abstract

The E-learning web-based design is very important for internet and the form of Objectives of the E-Learning Environment page form is more effective in the design of web-pages. The aims of this paper is to study, analyze, investigate and evaluate the performance measurement for the Form of the Home Page and the Objectives of the E-Learning Environment have been done using questionnaire and SPSS analysis for scientific and engineering Faculties.

**Keywords:** ICTs, E-Learning, Web-Based, ASTD, IT, CBT

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### 1. Introduction

E-Learning aims at replacing old-fashioned time/place/content predetermined learning with a just-in-time, artwork- place, customized and on-demand process of learning. It builds on several pillars, vis. management, culture and IT <sup>[1]</sup>. E-Learning needs management support in order to define a vision and plan for learning and to integrate learning into daily work. It requires changes in organizational behavior establishing a culture of "learn in the morning, do in the afternoon". Thus, an IT platform, which enables efficient implementation of such a learning infrastructure, is also needed. Our focus here lies in IT (Web) technology that enables efficient, just in time and relevant learning. E-Learning has its origins in computer-based training (CBT), which was an attempt to automate education, replace a paid instructor, and develop self-paced learning. But the focus of E-Learning is to extend and improve the users and business' needs <sup>[6]</sup>. Key to success is the ability to reduce the cycle time for learning and to adapt "content, size and style" of learning to the respective user and their business environment.

Technologies have been enhancing education all the time and new technologies have always been utilised firstly by education, especially with the emerging of computer related information technology <sup>[2]</sup> Network education (including distance education, distance learning), or e-Learning with the growth of computer networking. Wireless and mobile computing have resulted in mobile education or m-Learning. With wireless and mobile technologies, it is possible to realize anytime, anywhere, anyway, any device for learning and educating. Implementation of the m-Learning involves adding mobile computing technologies into the old e-Learning system. Modifying old systems needs a lot of work: redesigning architecture and re-implementing the m-Learning system. In the meantime, a large number of universities will update their systems and many more educational resources will be ported to new systems.

We find that the Internet and web-based technologies have a significant impact on formal learning and have contributed to improving performance. Face-to-face teacher training is outpacing web-based training today, but the growth in web-based training is still strong. One of the most important benefits of using web-based learning: reduced travel to training sites. Web-based learning also contains practical components, namely the ability to access training at any time and in any place, and provide training in a timely manner.

Alongside these economic and practical benefits come the challenges of designing education that takes advantage which takes advantage of the characteristics and features of the web, and has high-quality educational features, strategies and methods that meet educational needs. In which traditional instructional design models are applied to produce quality education in traditional training environments (face-to-face) to web-based learning.

The introduction of the Internet and new web-based technologies has led to changes in the way instructional design models based on new media are applied. To improve performance, modern resources and constraints must be examined, and questions must be asked and answered. This paper describes the modification of the traditional instructional design model when designing instruction for such new technologies as the home page format and objectives of the e-learning.

## 2. Objectives of study

### The objectives of this paper are

- To study fixed points for Design Considerations for Web-Based Learning System.
- To examine and analyzed the Form of the Home Page and the Objectives of the E-Learning Environment.

## 3. Previous Study

Different type of the research concern the Web-based Learning and Design Consideration to enhance the Web page form such as [3] consider Educational Objectives in E-Learning since 1956 to 2016 based on the taxonomies of cognitive objectives of learning, Devajit Mahanta, Majidul Ahmed looked into the three major e-learning tools, limitation, design issues and suggests that synchronous tools should be integrated into asynchronous environments to allow for "any-time" learning model and also given a remark that E-Learning needs to improve from various barriers [4], While The Impact and Effectiveness of E-Learning on Teaching and Learning is discussed by Riah F. Elcullada Encarnacion and others in [5] investigate the effects of E-Learning on teaching methodology and learning at Oman, where the identifying the advantages and disadvantages of e-learning in university education in United Arab Emirates. A

descriptive study design was used to randomly select students from Ajman University, are considered in [7]. A. Pauline Chitra\*, M. Antony Raj deals with E-learning environment in [8].

## E-learning Developments and Experiences

Studied by Shirley Alexander in [9], key characteristics with the purpose of better use of e-learning technology in the educational process. Is discussed by Snjeana Babi in [10], The design of the project to design a prototype of an online learning environment that supports leadership facilitators' knowledge development in the content area of motivation are considered in [11]. The analysis has been made between traditional and e-learning methods sighting out certain limitations of the e-learning environment developed explore by [12].

## 4. Methodology

To achieve the objectives of this paper four phases were done: Phase one a questioner concern the Form of the Home Page and the Objectives of the E-Learning Environment. The second phase the questioner is viewed for different population samples then the data is collected and analyzed using SPSS software program tools. The results were and discuss as shown below:

### 4.1. Questionnaire phase

The questionnaire is built to measure the personal characteristics of the respondent such as: gender, academic qualification, place of work, field of study (specialization).

The truth of the questionnaire is to measure the questions of the questionnaire and to verify the veracity of the questionnaire using the arbitrators (The questionnaire was presented in its preliminary form to a group of arbitrators consisting of [6].

The members of the teaching staff of the Faculty of Engineering, specializing in computer, economics and statistics at the University of Gezira, have responded to the views of the arbitrators to make the necessary deletion and modification in the light of the proposals submitted and thus the questionnaire came out in its final form.

Table 1: Number of item

Number	Item	Strongly Disagree	Disagree	I do not know	Agree	Strongly Agree
1	The page should include the beginning and end dates of the course					
2	The objectives are appropriate for the educational content provided					
3	The page provides students with space for storage					
4	The educational environment provides the objectives that students are required to achieve					
5	To provide important external links to return to different educational sources					
6	The page should be free of spelling and language errors					

## 4.2 Sample of the study

The study sample consisted of academics and heads of administrative departments. The sample was randomized to 81 samples, male 55 samples and female 26 samples to test the internal consistency and stability of the questionnaire. After verifying the validity and reliability of the test, a random sample was taken to show the distribution of the sample of the study, consisting of (81) academic. The Faculty of Computer Science (30) which about (37%) and the Faculty of Engineering (51) which about (63%). The male (55) which about (67.9%) and the female (26) which about (32.1%).

## 4.3 Tools: SPSS software used to analyze the results

### 4.4 Data Collection

Table 2: SPSS software

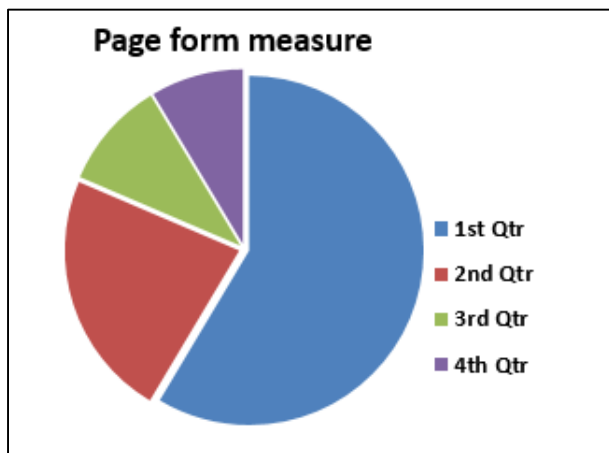
Question No	Strongly Disagree	Disagree	I do not Know I	Agree	Strongly Agree
1	1	4	9	39	28
2	0	2	2	21	56
3	2	4	4	31	40
4	0	1	4	28	48
5	0	1	0	13	67
6	0	1	0	16	63

## 5. Results and Discussion

After analyzing the collected data for 6 questions to measure the Form of the Home Page and the Objectives of the E-Learning Environment using SPSS software program. The following results were obtained in terms of tables and charts.

**Table 3:** Collected data for 6 questions

Questions No.	Strongly Disagree	Disagree	I do not know	Agree	Strongly Agree
1	1	4	9	39	28
2	0	2	2	21	56
3	2	4	4	31	40
4	0	1	4	28	48
5	0	1	0	13	67
6	0	1	0	16	63
Average	0.5	2.167	3.17	24.66	50.33
STD	0.83666003	1.47196	3.371449	9.811558	14.70601



**Fig 1:** page form measure

**Table 4:** Male Result

Questions No.	Strongly Disagree	Disagree	I do not know	Agree	Strongly Agree
1	1	3	6	32	13
2	0	1	2	20	32
3	2	4	3	24	22
4	0	1	4	25	26
5	0	1	0	9	45
6	0	1	0	6	47
Average	0.5	1.833333	2.5	19.33333	30.83333
STDEV	0.83666003	1.32916	2.345208	9.993331	13.28784

**Table 5:** Female Result

Questions No.	Strongly Disagree	Disagree	I do not know	Agree	Strongly Agree
1	0	1	3	7	15
2	0	1	0	1	24
3	0	0	1	7	18
4	0	0	0	4	23
5	0	0	0	4	22
6	0	0	0	10	16
Average	0	0.333333	0.666667	5.5	19.66667
STDEV	0	0.516398	1.21106	3.146427	3.829708

From the table no 1 and graph no 1 the result show that the Form of the Home Page and the Objectives of the E-Learning Environment is strongly agree with average of 50.33 with standard deviation of 14.70601 while agree with average of 24.66 with standard deviation of 9.811558, while I do not

know with average of 3.17 with standard deviation of 3.371449, while disagree with average of 2.167 with standard deviation of 1.47196, while strongly disagree with average of 0.5 with standard deviation of 0.83666003. From table no 2 shows the male results is strongly agree with average of 30.83333 with standard deviation of 13.28784 and the female results from table no 3 is strongly agree with average of 19.66667 with standard deviation of 3.146427.

From the above we observe that the result finding for the questionnaire is strongly agree for all member of the pupation sample which agree with others papers.

## 6. Conclusions

The study analysis to investigate and evaluate the performance measurement for the Form of the Home Page and the Objectives of the E-Learning Environment have been done using questionnaire and SPSS analysis for scientific and engineering Faculties.

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