

E- Learning and Quality Circle

Ola A.M Ibrahim

Research Student – University of Huddersfield –UK
Email: olaelsa3i@gmail.com, u1078350@hud.ac.uk

I. INTRODUCTION

Many services have been transformed to E- service which an umbrella term for services on the internet. E- Learning is one of the most important E- services offered. It is most used in training or higher education courses. At the same time Quality of education is the aim of all the High Educational Institute, especially in the Arab world. In this paper we try to study the criteria of each of Higher Education, E-learning, and Quality, in order to find a relationship to indicate a route to go through for improvement of E-Learning programme in Higher Education.

II. HIGHER EDUCATION

Higher education should be judged by the extent to which it:

- (1) gives students the confidence and ability to take responsibility for their own continuing personal and professional development;
- (2) Prepares students to be personally effective within the circumstances of their lives and work; and
- (3) Promote the pursuit of excellence in the development, acquisition and application of knowledge and skills.

Higher education will need to be able to achieve these interrelated purposes within the context of expanding numbers, diminishing resources and external accountability, and with an increasingly diverse mixture of student. Capability approaches to learning improve the quality of student learning by emphasizing the application of knowledge and skills, the negotiation of programmes, collaboration with others and structured reflection progress.(John stephenson & Susan Weil, 1992, pp. 1-7)”

The growing uses of alternative sources of learning, and the focus on the different ways of learning in HE courses, encourage the integration of what is taught and what is utilized both in work and in life generally. Courses which take account of the world outside HE institutions, of professional and organizational practice, demonstrate ways in which theory and practice can be strongly linked. In this way, learners are encouraged to recognize that they can continue developing over time, rather than restricting their opportunities to those provided on educational and training courses. (John stephenson & Susan Weil, 1992, p. 75)

III. DISTANCE LEARNING

Distance learning was praised because of its ability to scale up to reach larger numbers of students at standardized levels of quality but an expert lecturing to a group of passive students is engaging in didactic one way teaching weather that lecture is delivered from a stage of auditorium or via broadcast television to students sitting in their living rooms. (Reza Hazemi & Stephen Hailes, 2002, p. 29)

Many institutions introducing distance learning spend a large amount of their resources (both time and money) on training faculty to manage the new technical and administrative aspects of distance courses. Instead, faculty need to learn to manage critical dimensions of the new environment in which their courses are taking place, dimensions like metaphor, meaning, culture, role, time , awareness, and collaboration.

Distance learning can involve many different technologies used alone or in combination. Although many of decisions to be made about which of the many possible technologies and media will work best for specific purposes. New technology requires rethinking the teaching dynamics because we do not have the option of using familiar approaches. It gives us an opening to change the way we manage the teaching and learning process in general. The critical part of the question,” How can we engage learners in more meaningful learning activities?” Facilitating distance learning is not about taking our old lesson plans and transporting them for delivery using new media. Rather, it is about expanding our available tools to create new learning dynamics aligned with the best thinking about adult learning.(Reza Hazemi & Stephen Hailes, 2002, pp. 27-28)

The new frame work of managing distance learning should be about managing the learning process rather than managing courses. The kind of questions we need to be asking ourselves are not about how to plug one kind of technology into another or how faculty can be more effective on video. The more important questions are about how to use technology to leverage resources and group dynamics in new ways to make fundamental changes in every part of the learning process. (Reza Hazemi & Stephen Hailes, 2002, p. 38)

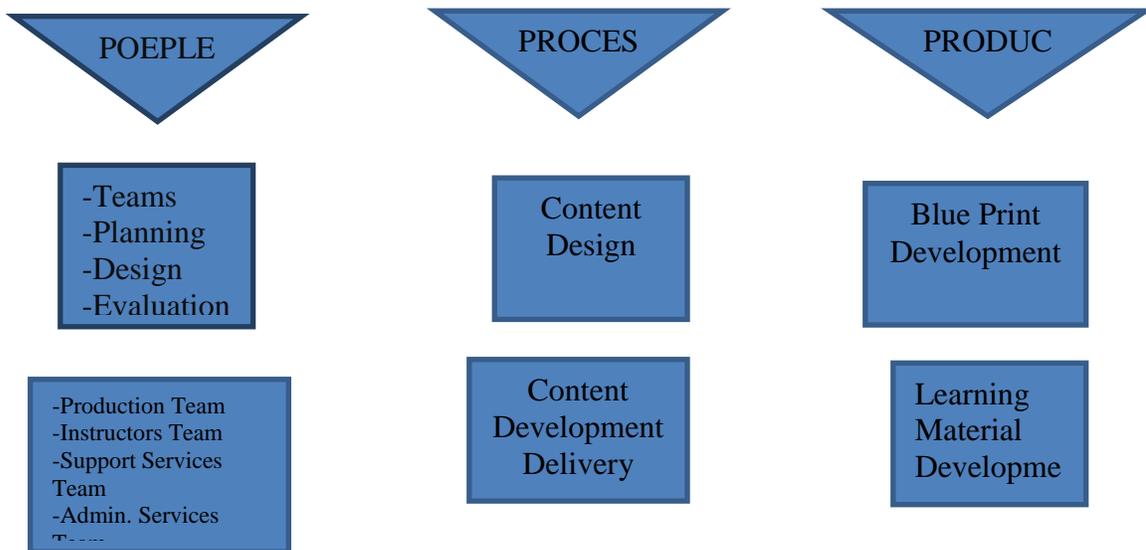
Many governments and organizations in various countries are developing ways of measuring and producing guidelines for e-learning quality in higher education. For example:

- UNESCO/OECD (2005) recognize e-learning in their guidelines on quality provision in cross-border higher education;
- Lee, Thurab-Nkhosi, and Giannini-Gachago (2005) worked collaboratively across two countries to develop a quality assurance tool for e-learning;
- KeKang, Hai, Chun, and Bin (2005) developed an authoritative index system of quality assurance for web based curricula, teaching processes, and the supporting service system;
- Weir, Kulski, and Wright (2005) explore the extent to which Australian frameworks and strategies for quality assurance ensure online provision of high-quality transnational educational programs. (Alexander, S. & Golia, T., 2007)

E- Learning 3P Model

(By Prof. Badr El Huda Khan)

International Conference on E-learning (ICEL) 2012 Cairo



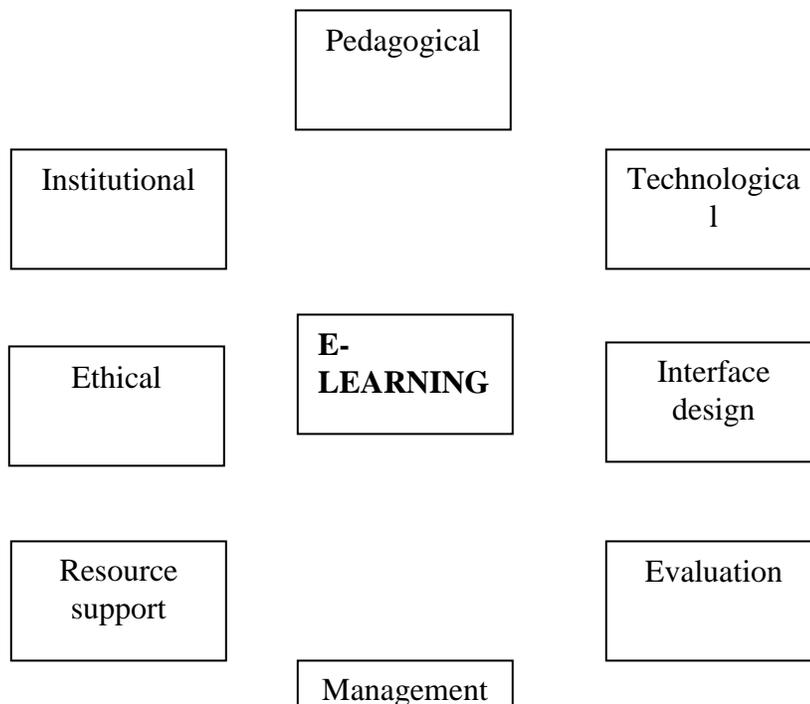
*Instructional design helps professors to design the course to deliver it in a better way

Learning and Teaching issues in

E- Learning(magdy, 2012)

(By Prof. Badr El Huda Khan)

International Conference on E-learning (ICEL) 2012 Cairo



IV. E-LEARNING SYSTEM QUALITY

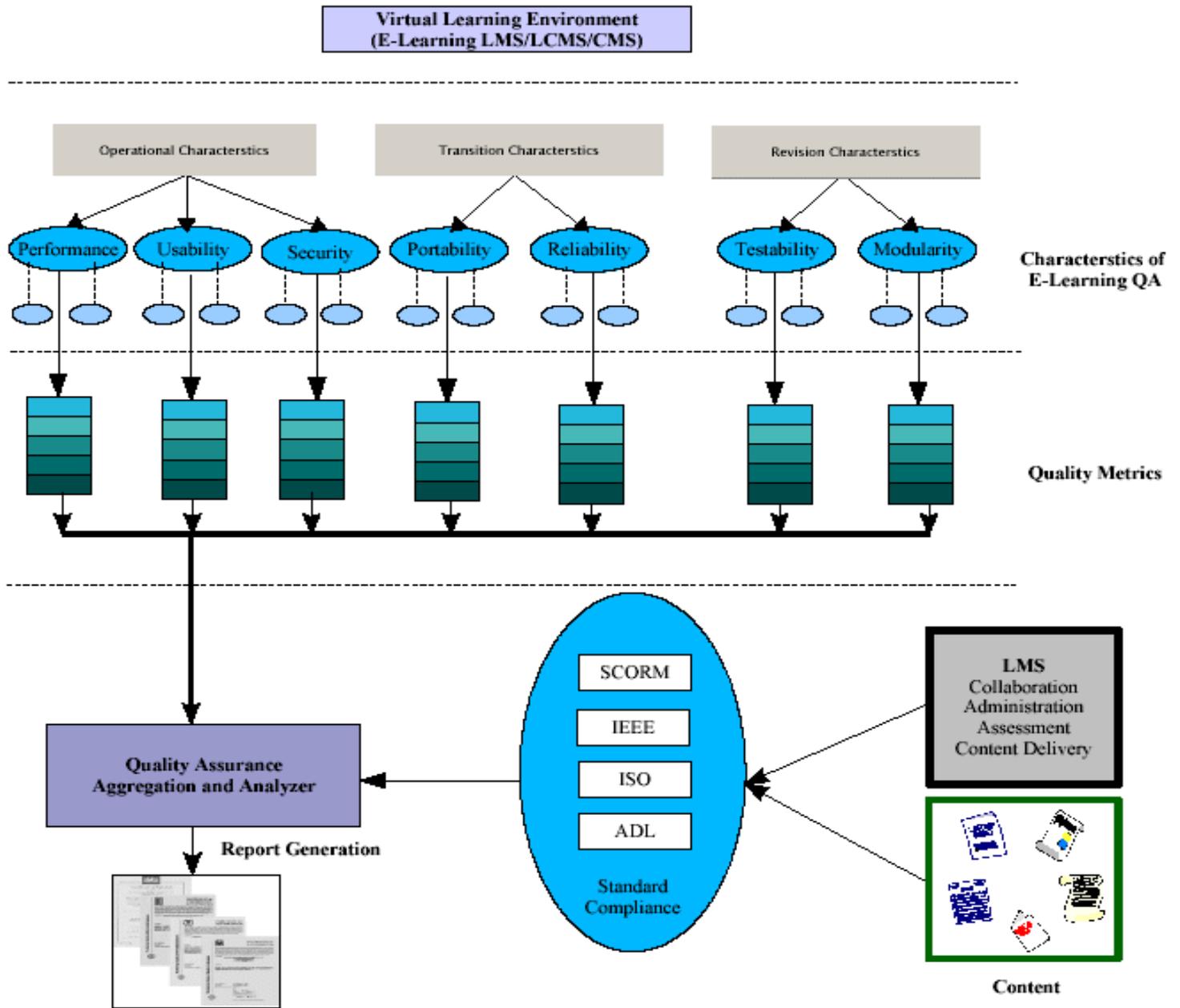
Research into evaluating e-learning systems comes from two directions: the educationalists and the software developers. Many educators have shown significant interest in the pedagogical evaluation of e-learning systems, that is, in course design issues and how to promote good learning (Laurillard 1993;Reeves 1992). Although these fundamental issues of course design are vital, these studies do not assist educators in evaluating the quality of the system as such, and therefore do not incorporate frameworks to support decision making regarding review of existing systems and the purchase of new ones.

There is also a vast body of literature relating to various technical frameworks for software developers who wish to improve the quality of the e-learning systems they are developing. A systematic approach is the IEEE Learning Technology Standard Committee (LTSC) reference model, IEEE P1484.1 LTSA. This model has five layers, which focus on reusability and portability, and compares different e-learning systems by numerical rating scales for various factors, e.g., assessment, administration, curriculum development, etc. (O'Droma, M. S., Ganchev, I. & McDonnell, F. 2003). The Sharable Content Object Reference Model (SCORM) is another widely known framework. It supports content compatibility, that is the portability of content from one e-learning system to another and the re-usability of learning objects by extensive cataloguing using metadata (Bohl, Schelhase, Sengler&Winand 2002). The Instructional Management Systems (IMS) project is another approach to defining technical specifications in order to promote interoperability between e-learning systems (IMS Global Learning Consortium). These standards focus on technical aspects of e-learning systems and neglect the Human Computer Interaction (HCI) component, that is, how the user will interact with the system. More importantly, they are too complicated for the average educator or educational administrator to understand and apply when choosing an e-learning system. They are specially designed for technical trained system developers.

The few studies that have been undertaken for educators and people working in educational institutions who need to evaluate e-learning systems are often inadequate. This is due to the lack of systematic tools or approaches. For example, Roberts (2002) gains a good overview of Blackboard using surveys, focus groups and interviews, but the results are too general and do not provide detailed analysis of features such as usability. In another study, the Learning and Teaching Technology Group (LTTG) undertook a comparison of Blackboard and WebCT. Their main approach was an evaluation based on the number of times students accessed different tools in the system, e.g. discussion board, group areas and others.

Nevertheless, these quantitative counts are not meaningful without details of the subject design, for example how the group area activities were incorporated into the learning environment. The rest of their paper offers a miscellaneous group of features for evaluation, e.g. data integration, pricing, hardware or software platforms and ease of access. However, there is no system or justification for their choice of features and many common usability criteria are omitted. A third approach we examined was "20 Questions", which Driscoll and Dennehy (2002) propose putting to suppliers of the system. They resolve the adoption of an e-learning system into two factors, organisational and technical, although only a few of their questions deal with organisational issues and the main emphasis is on the technical issues, e.g. back end integration and the partitioning of the system. Student interaction with the system receives very little attention in their approach. Likewise, Parisotto (2003) focuses broadly on high level issues in evaluating e-learning systems. He considers three organisational perspectives (academic, administrative and IT support) but fails to discuss the operational levels, that is, the system in use.

<http://www.google.com.sg/imgres?num=10&hl=ar&tbnid=NilV9qAwTM-OIM:&imgrefurl=http://cdachyd.in/products/qaael&docid=OTrKyYSQYC4WTM&imgurl=http://cdach>



A Quality Circle

A Quality Circle is a volunteer group composed of workers (or even students) who meet to discuss workplace improvement, and make presentations to management with their ideas, especially relating to quality of output in order to improve the performance of the organization, and motivate and enrich the work of employees. Typical topics are improving occupational safety and health, improving product design, and improvement in manufacturing process.

The ideal size of a quality circle is from eight to ten members. Quality circles have the advantage of continuity; the circle remains intact from project to project. Quality circles were first established in Japan in 1962, and Kaoru Ishikawa has been credited with their creation. The movement in Japan was coordinated by the Japanese Union of Scientists and Engineers (JUSE).

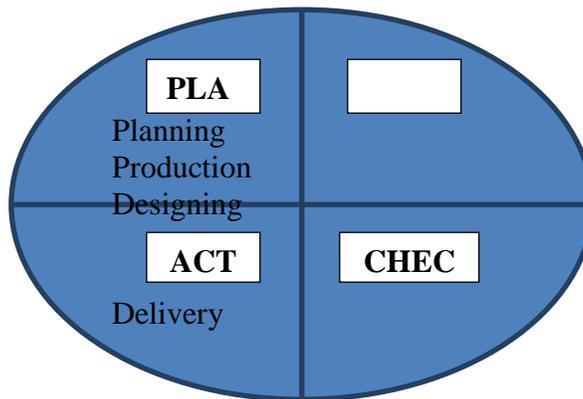
The use of quality circles then spread beyond Japan. Quality circles have been implemented even in educational sectors in India and QCFI (Quality Circle Forum of India) is promoting such activities.

There are different quality circle tools, namely:

- 1-The Ishikawa diagram - which shows hierarchies of causes contributing to a problem
- 2- The Pareto Chart - which analyses different causes by frequency to illustrate the vital cause
- 3- The PDCA-Deming wheel - Plan, Do, Check, Act, as described by W. Edwards Deming (strategyvectormodel.com, 2008)

E- Learning Stages versus Quality Circle:-

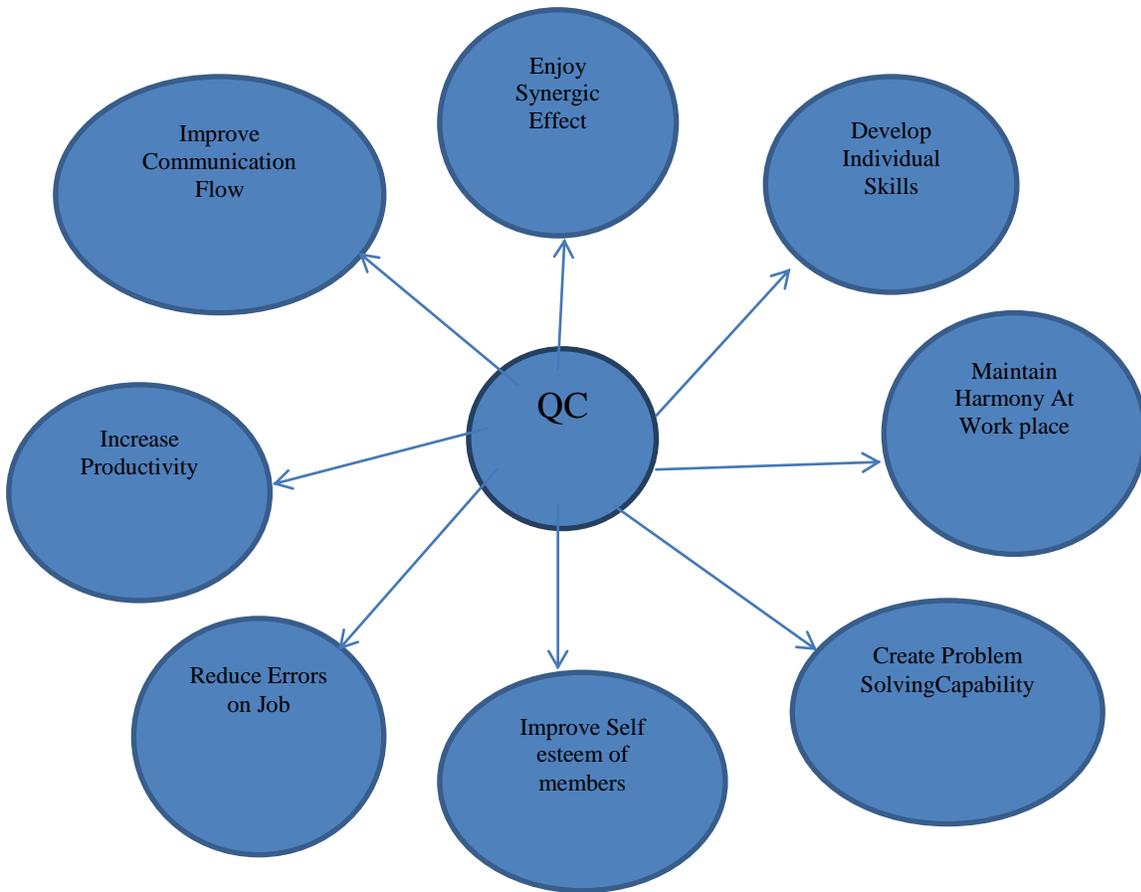
- Planning (PLAN)
- Designing (PLAN)
- Production (DO)
- Evaluation(CHECK)
- Delivery (ACT)
- Instruction (ACT)
- Marketing (ACT)



High quality E-learning System must be meaningful to:-
Learners, Instructors, Technical and Support staff in the Organisation.
It should be:-

- Easily accessible
- Clearly organized
- Well written
- Authoritatively presented
- Learner centered
- Affordable
- Efficient
- Flexible and,
- Has a Facilitated learning environment.

The different objectives of the quality circle are represented as follows: (magdy, 2012)



It is recommended that the quality circle be introduced in the organization for building the quality culture, quality circle is voluntary movement, employees in the organization should be motivated to join this movement. (magdy, 2012)

When quality circle will be introduced in the Higher education institute which offers an E- learning programme, then it will be Easily accessible, Clearly organized, and Well written. It will be also, Authoritatively presented, Learner centered, and Affordable. As well as Efficient, Flexible and, has a Facilitated learning environment.

E- learning in Higher Education in Egypt:-

Higher education in Egypt faces many challenges like,

- high student numbers,
- financing of education,
- governance and management of the education system, and
- Quality assurance.

Therefore, the national institutional ICT policies and initiatives adopted the e-learning as a teaching strategy to overcome the challenges of the traditional lecturing style. In this manner, the National E-learning Center (NELC) was established, Egyptian E-learning University (EELU) established 2008 to provide e-learning nationally, regionally, and internationally, and one of the Information and Communication Technology Project (ICTP) outcomes, to serve as a technical unit within the Supreme Council of Universities to promote and support the development of e-learning in Egypt by improving the development of the e-learning content.(Khouly, 2010)

National E-learning Center(Khouly, 2010)

The National E-Learning Centre (NELC) is a building block within the Higher Education Information Center, SCU. Its primary objective is to 'promote and support the development of e-learning in Egypt by improving the development of the learning content to the highest maturity level, to achieve strong presence both locally and regionally'.

NELC's revised a strategic plan aims to develop a robust infrastructure at each of the public universities, capable of facilitating an effective e-learning system. This will be achieved through the establishment of an e-learning centre at each of the 17 Egyptian universities. These centers are able to develop pedagogically sound e-courses that fully utilize the potential of ICT in an interactive way. Each will be staffed by a centre director, instructional designer, e-content developers, graphics designers and subject-matter experts. The NELC monitors the progress of the university centers and develops national standards. The university centers are networked with the NELC through the Egyptian Universities Network (EUN). (Khouly, 2010)

Egyptian E-learning University (EELU)

EELU (<http://www.eelu.edu.eg/wps/portal>) is a private non-profit University established with the Decree, No. 233, of the President of the Arab Republic of Egypt in the 16th August 2008 to provide distance education through 24-hour online learning with a vision to be a leading university providing e-learning nationally, regionally, and internationally. EELU gives educational opportunity to learners who cannot attend a campus university.

The scope of EELU is not only intended to cover Cairo but also can be extended to cover all the governorates in Egypt and some Arab countries and as a start point there are three learning centers located in Cairo, Delta (Tanta) and upper Egypt (Assuit).

Students can access courses' materials, lectures, and any piece of information through both the EELU Intranet and the Internet.

This type of learning permits collaboration between the students and the instructors and among the students themselves. In addition, students can learn remotely from different geographically distant locations. In this manner, EELU provides a virtual educational environment that reduces dependence on the concept of physical and geographical proximities between student and teacher and in the meantime provide maximum educational interactions, benefits and management.(Khouly, 2010)

Results of the Survey about applying Total Quality Management on E-Learning in Egypt

Do not work in the field of High Education = 36.36%
Do not have neither e- learning nor TQM = 22.73%
Have Both E-learning and TQM = 9.09 %
Have E-learning and do not have TQM = 18.18%
Do not have E- learning and have TQM = 13.63%
Offer E-learning outside Egypt in Saudi Arabia. = 4.54%

REFERENCES

- [1] Alexander,S. & Golia,T. (2007). Using student experiences to derive quality in an e- Learning system: An Institution's Perspective. *Educatioanl Technology & Society*, 10(2), 17-33.
- [2] John stephenson & Susan Weil. (1992). *Quality in learning - acapability approach in higher education*. London: Kogan page limited.
- [3] Khan, P. B. (2012). EELU International Conference on e-learning (ICEL) . A framework of e-learning. Cairo: Egyptian e-learning University.
- [4] Khouly, M. E. (2010). E- learning in Egypt. In U. Demiray, *E-Learning Practices* (pp. 107-131). Turkey: Anadolu University.
- [5] Magdy, P. K. (2012). International conference on e-learning (ICEL). *E-Learning Systems*. Cairo: Egyptian e-learning university.
- [6] Reza Hazemi & Stephen Hailes. (2002). *The digital university- building a learning community*. Grait Britain: Verlag London Limited.
- [7] Strategyvectormodel.com. (2008). http://www.vectorstudy.com/management_theories/quality_circles.htm. Retrieved october 4, 2012, from vectorstudy.com.