

# A Case Study about Detailed Reports of the Asynchronized e-Learning Management System Applied by Elginkan Foundation

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**Abstract.** In this study which was carried out by Ege University, it was evaluated mass distance learning activities, both qualitatively and quantitatively.

**Keywords:** Elginkan Foundation, e-Learning, MOODLE, results of assessments.

## 1 The Role of e-Learning in Vocational and Technical Education

The development and progress of countries requires the fundamental elements of industrialization i.e. qualified human resources having knowledge, skill and work ethics to achieve a high level of efficiency. The improvement of knowledge and skill level of qualified personnel would create a consistent base for economic success. Vocational education is supposed to be designed as being oriented to directions namely, preparing a successful carrier path for young individuals and training qualified personnel for the economy. Nowadays, the great contribution of vocational and technical education in the realization of rapid technological change is a conceded fact by everybody; especially the educators and the employers are being the leading ranks [1, 2].

When the Turkish job market is observed, it is easily noticed despite the increasing employment rates, the demand for vocational and technical educated qualified work force is rolling up every day [3]. Whereas Turkey has offered various local educational programs [4, 5, 6], a massive initiative was failed to be enacted. Especially, broadcasting vocational and technical distance education to a vast audience via Internet has great potential in this aspect. The distance education allows housewives, new graduates and prisoners which have limited or no access to the job market for being able to be trained for a profession. The distance education does not enable the individuals to achieve an extended range of knowledge but also offers the chance of getting new capabilities and skills. The distance education especially is effective for skill development at vocational and technical training. The learner is being bestowed via

distance education especially the advantage of participating to the lectures of distinguished academic staff that have the latest level of academic know-how. Upon achievement of international vocational competencies and standards, any student residing at any part of world might be able to awarded international certification via international examinations through distance education. Such certificated students may get employed easily at any country which they like [7].

From the other side of the scenery, there is also a group in Turkey (actually at worldwide), whose members already have attended to vocational education in the field of informatics, demanding to refresh their professional knowledge. For this group of individuals, distance learning may be regarded as a lifelong learning activity. In this respect, distance learning would evolve as a lifelong vocational and technical learning activity. Such educational examples are given at [8, 9].

## 2 Material and Method

In recent years, the Universities in Turkey have started the e-learning sector and the first graduations had been made. Ege University is also providing e-learning programs both in synchronized and asynchronies platforms which are supported by Ege University Information Systems Research Center (ISRC). As the number of educational institutions offering distance education rises e-learning became the trend. One of the most effective users of this trend in Turkey is Elginkan Education Foundation. The Elginkan Education Foundation had been founded in 1985 and center was located in Manisa, Turkey. Elginkan Foundation's Education Center (EFEC) provides free learning materials to their participants and makes this teaching process completely free for years. Usually teaching is made by e-learning style instead of physical classrooms. In this stage, remote e-learning platform is used as MOODLE (Modular Object-Oriented Dynamic Learning Environment). This platform provides the users could participate to the courses from all over the country. All the users have a unique username and password to login to the system. After a successfully login, all the user activities in his/her course pages are logged and these logs are used in this study for calculating the results statistically.

EFEC has open several courses for the participants for different areas. The opened courses are follows: Computer Operator, Pre-Accounting, Computer Aided Design (Unigraphics NX CAD), Computer Aided Design (AutoCAD), Project Management, Web page design, Basic training in occupational health and safety, Advanced Excel, Digital photograph processing (Photoshop), Communication skills seminar, Dynamic web programming with PHP.

All the course's contents are prepared by ISRC for e-Learning materials such as Adobe Flash Professional, Adobe Presenter, Adobe Captivate, Adobe Premiere, Camtasia Studio and iSpring Pro Suite software. These software are the e-learning preparation tools that are the leaders of this sector. Some of the courses include several video files that briefly describing the topics. All the prepared materials packed as SCORM based e-Learning standards. SCORM provides all the actions in these packed materials should be logged (such as viewed or not or how many percent of the content has viewed etc.).

EFEC gives great importance to the views of the students involved in classes. Because of this purposes, they make several surveys for getting feedbacks from their users. These surveys evaluate the adequacy of the course content, teacher abilities, learning materials and the used e-Learning system background. According to the results of these surveys, managers of the Foundation can make changes for the content and conduct of the courses.

These surveys applied to the participants as soon as the course finished. These surveys are made before the graduation exam. The graduation exam applied only to the students who want to apply and under the authority of the Ministry of Education is just making the graduation exam for participants whether they can attend by paying the examination fee. The EFEC never takes this payment.

In this study case, all the EFEC courses examined and participants' logs are determined if they are acceptable or not. If all the parts of a course completed by the participants, these results are accepted and if user had abandoned the course and not finished as uncompleted state, it is not accepted. Log values are directly taken from the MOODLE system's reporting abilities (logs, activity reports, course participations and statistics) and also used for 3rd party plugins for the grouping these values, for example, MocLog Gismo (a graphical interactive student monitoring and tracking system that extracts tracking data from an online course maintained with MOODLE, and generates graphical representations that can be explored by course instructors) and Progress Bar Block (The block provides a color coded display of the required actions of a learner in a course. Each box represents an activity or resource that the student must read/complete. There is also an expected date aspect, so that a student can quickly see whether they have completed something or not and on time or not).

EFEC's e-Learning materials and participants are examined and detailed reports have been documented for the finished courses by ISRC. Due to continuing courses available, it is not yet fully completed but to develop the courses for participants, a qualitative study will be carried out for this case and the results will be presented in the full text paper for this study.

### 3 Results

During 2013, Ege University MOODLE Distance Learning System offered total 15 courses in which the users were monitored by Elginkan Foundation Distance Learning Unit. A total of 15,000 trainees were registered to the aforementioned courses however, only a certain number of the registered trainees were able to complete the courses and some of them were fail to follow the whole course program because of various reasons. For being able to assess the completed courses from the view point of trainees, an "Education Assessment Survey" was introduced to the participant trainees upon completion of 2nd group of courses just before the commencing of 3rd and 4th group courses. The survey was consisting of total 6 questions, as displayed in Table 1. The answers for these questions were classified between the range of 1 – 5 numbers as, 5=VERY GOOD, 4=GOOD, 3=MEDIOCRE, 2=POOR, 1=VERY POOR.

Only the volunteers were subjected to the survey upon completion of the related course. Consequently, the number of the registered trainees and the number of trainees which filled out the survey forms were happened to be different, and the percentages of

survey participation are revealed in Table.1. The assessments were based on the average values (1 – 5) of answers which were given by trainees for each question. By applying average values for each average within themselves for all courses, it was aimed to display a general overview about all of the courses. Reviewing the survey outcomes would reveal that the number of trainees and the number of survey participants were different for each course. Hence, each course was assessed on an individual basis.

A general evaluation of the results would display, for total 7 courses, the number of 953 survey respondents out of total 5879 trainees that revealing approximately 25% of the participants had completed the courses. On this basis, a general evaluation of the points which were compiled from the answers of the addressed questions showed an average of 3.75 – 3.82 range. The range suggests that the Distance Learning system was perceived by the participants as having a medium level viability which was able to offer sufficient know-how regarding educational setting within a good enough training platform.

Within the context of this survey also, an open ended question were addressed to respondents, namely, "Would you please share your ideas about the course that you were attended". This question was answered by 593 individuals. Here below, 5 examples compiled from the answers for each having negative and positive reflections.

### **3.1 Examples of Answers with Positive Reflections**

- (Web Page Design) "I regard the education as highly useful and efficient"
- (Photoshop) "Your institution is offering really a successful education. I would like to present my sincere thanks to everyone those who contributed."
- (Advanced Excel) "I have previous experience and knowledge on Excel. Actually, I can say that this education enabled me to get expert knowledge. I was really good. Thanks."
- (Computer Operator) "I have achieved effective learning and gained explicit knowledge about many aspects which were obscure to me previously."
- (AutoCAD) "I think, it was beneficial for my personal development."

### **3.2 Examples of Answers with Negative Reflections**

- (Web Page Design) "In my idea, it was not sufficient for transferring info to users. It was necessary to call the office for getting info about the examination time and setting whereas it was quite possible to resolve by an online notification within distance learning system."
- (Photoshop) "The volume level of video presentation was considerably poor but on the other hand, it was a useful education, I would like to present my thanks to Elginkan team, they offer very useful training courses.."
- (Advanced Excel) "It was a very gray course by means of material supply."
- (Computer Operator) "Although a highly functional system, it was hard to comprehend for the trainees having a slim background."
- (AutoCAD) "The video image quality was not sharp. In my idea, this should have been smooth out."

**Table 1.** Ege University - Elginkan Foundation 2013 Courses, Outcomes of Educational Assessment Survey

Course Designation	Number of Trainees	Number of Survey Respondents	Participation (%)
Computer Aided Design - AutoCad	989	140	14,16 %
Computer Aided Design - SolidWorks	989	198	20,02 %
Computer Operator - 8	323	85	26,32 %
Advanced Excel	1.557	215	13,81 %
Digital Photographing (PhotoShop)	841	135	16,05 %
Web Programming with PHP	609	68	11,17 %
Web Page Design	571	112	19,61 %
<b>General Sum/Average</b>	<b>5.879</b>	<b>953</b>	<b>16,21 %</b>

Course Designation	5=VERY GOOD, 4=GOOD, 3=MEDIOCRE, 2=POOR, 1=VERY POOR				
	The level of meeting your expectations for training	Training content newsworthy	The interactivity of the training by means of effectivity	The contribution of the training to your personal development	The sufficiency of distance training
Computer Aided Design - AutoCad	3,73	3,83	3,56	3,91	3,79
Computer Aided Design - SolidWorks	3,49	3,49	3,48	3,54	3,47
Computer Operator - 8	3,95	4,02	3,81	4,09	3,92
Advanced Excel	3,61	3,74	3,38	3,68	3,53
Digital Photographing (PhotoShop)	4,19	4,27	4,10	4,24	4,27
Web Programming with PHP	3,47	3,54	3,49	3,47	3,46
Web Page Design	4,01	4,05	3,79	4,00	3,87
<b>General Sum/Average</b>	<b>3,75</b>	<b>3,82</b>	<b>3,62</b>	<b>3,82</b>	<b>3,73</b>

## 4 Conclusions

As a result of the distance learning program which has been carried out by Ege University in collaboration with EFEC, 11,109 students were registered to the system and in alignment with the outcomes of the qualitative and quantitative studies which were enacted via compiled data from student respondents, it is already commenced the improvement process for being able to achieve a more effective system.

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