

# The Use Of Blended Teaching Model With Adaptive Online Learning Environment and Student Expectations

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## Abstract

Also led to the emergence of new opportunities for rapid development of computer technology training activities. One of the most important of these possibilities can be seen as adaptive online learning environments.

In addition to working in the education field for the functionality of adaptive online learning environment, constitute the use of blended learning environment in this area is seen again as a current topic. Training that emphasizes individual differences in adaptive online learning environments, although it is popular, of academic publications on this subject not said that equally increased. This is because, serious work to be done in the area of software information, subject area knowledge and having knowledge of instructional materials design is a necessity. In order to close the gap on this issue, blended learning and adaptive online learning environments in this study has been conducted to determine the expectations of the students within the scope of use. This study, computers and instructional technology department fourth grader was carried out with 26 students. Student expectations survey has revealed the expectations of the students with the help of. According to the results of the study, students use adaptive online learning environment is a high level of expectations.

**Keywords:** Blended learning, Online learning, Adaptive online learning environment, e-Learning

## 1. Introduction

Developments recently occurred in the learning environment has led to the emergence of some new concepts and projects. One of these developments, the online learning environment to user preferences, taking into account individual characteristics and readiness in this direction and are forming a new adaptive learning environment online learning environment. In particular, the effective use of technology with a variety of learning environments in higher education institutions are requirements for efficient learning. This design and the construction of new studies in this field in eliminating the need for these learning environments are increasingly become necessities. Computer and speed of use internet technologies in education has necessitated the formation of different teaching environments. The extent opportunities offered by today's technology will be available to different users have different characteristics of the environment requirement, the researchers on the work environment is creating new concepts. Adaptive Online Learning Environments also bring innovations to this sense of area. The research conducted in this context focuses on adaptive design environment (Maycock, 2010; Serce, 2008; Somyurek, 2008; Sural, 2012; Uysal, 2008; Wolf, 2007).

Orhan (2013), teaching a planned and programmed in accordance with a specific purpose in a way that individuals, providing learning content and support the development of a way of thinking and is expressed as a process of organized learning activities to facilitate. A group came together in the teaching learning process of people with different characteristics to perform together efforts, how to design the learning environment, what issues are on the agenda for learning to take place questions as to affect the process. Four components that affect the teaching-learning process: Student characteristics, teacher characteristics, quality of teaching environment, structure of the content and scheme.

New generation learning environments used in the preparation of the teaching environment with a variety of learning experiences as well as to offer different strategies to meet the individual needs. Bachari, Abdelwahed and Adnani (2010) state, different learning models each offering different opportunities to learn. Some people are affected by the listening and speaking, some are affected by text analysis without the use of simple visual media. So that on effective learning environment, learners should be aware that



they are active in their own learning and personal preferences. Rapprochements in the development and the ability to learn this information will help learners.

Eryilmaz (2012) represents, computer and internet training and developing technologies that make our lives represents a part of daily life. This along with e-learning, online learning, computer-based learning, mobile learning models such as the new generation comes up. The common point of these models is to say that the user-centered. When online learning environments required to exercise due diligence to learn the characteristics and expectations of learning difficulties can be experienced in the process of Celen, Celik and Seferoglu (2011) are seen in the study by distance education.

However, students have a high level of basic computer self-efficacy perception and other variables which are decisive in the success of online learning environment to take responsibility for their own learning. Demir Kaymak and Horzum (2013) state, between a tutorial on online learning programs and student communication and interaction creates dialogue. In this structure, as well as course content, activities and learning outcomes, such as components, the necessary elements to meet the individual needs of students are created by having one. All students are required to include the course, which consists of components capable of meeting the needs of. If a course does not have the flexible components to accommodate the individual needs of all students (different learning styles, approaches like to include activities for and speed) structure is considered to be a high class.

Day after day, spreading can be personalized learning environments is becoming a popular practice. This environment will contribute to the development of Web 3.0 and the semantic web technology is considered (Sahin ve Kisla, 2013). Pioneer of intelligent and adaptive web-based educational systems were developed in the years 1995-1996. Many interesting systems have been developed and have been reported since then (Brusilovsky and Peylo, 2003).

Technology and as a combination of face-to-face training Akkoyunlu and Yilmaz Soylu (2006) they called blended learning, in other words, in the face of online learning with traditional classroom-to-face method is specified as a combination of the best aspects of learning. Research on the design of learning environments supported by technology focuses on blended learning (Akyol, 2009; Aljojo, 2012; Augstein, 2011 and Cardak, 2012).

This study, online learning environments in order to respond to the needs on the subject, blended learning and web-based media concepts discussed in a common framework, additives were investigated brought area. Study, was handled in terms of research and methods to be followed by the search for original and current issues, the results achieved in terms of research quality is also an important research because of subsequent research will shed light on. Students are intended to demonstrate the impact of the implementation of academic achievement with this online research was designed as a learning environment adapted web-based training portal of blended learning environments.

## 2. Method

In this study, computers and instructional technology degree program in fourth grade education department web design course, adaptive learning environment for online education teaching software made with prepared according to principles, expectations of students were investigated.

Such research, Yildirim and Simsek emphasize (2006), as much as possible of the data to ensure the validity and reliability of the results obtained should be introduced giving detailed and direct quotations that place.

The study group of this research, Cukurova University faculty of education constitutes the fourth year students studying at the education department of computer and instructional technologies in 2014-2015 academic year. 26 students were administered expectations survey. Working group of the study are presented in Table 1.

Table 1. Personal Information of The Students Participating In The Research

	Frequency (f)	Percent (%)
Female	13	50
Male	13	50
Total	26	100

Web design course taught in the education department of computer and instructional technologies is both theoretical and practical courses. Students, who attend the course, use software designed according to the principles of adaptive online learning for themselves in blended learning environment planned by researchers. This research was carried out using this medium to put forward the expectations of the student before. Through adaptive environment that allows students to control their own learning, time and the venue of the teaching process, an independent learning environment has been tried to be created.

Adaptive online learning environment and process-related studies on the students in this research, student expectations survey is used as a data collection tool. The views of five experts on the content validity of the questionnaire were. After arranging expert opinions and test with the addition of certain substances were finalized. SPSS 21.0 software was used to analyze the data.

### 3. Evidence

In web design course, be adapted for use with the online learning environment in terms of blended learning environments where students discussed their expectations in this part of the study, students are given the data obtained from the expectations survey.

The survey, administered prior research, the students before they use state of online learning environment in any area of education were examined. Results are given in Table 2.

Table 2. Previously Education Any Online Learning Environment Single Use Findings about the Use of A Field

Does any field of online learning environment used in education	N	%
Yes	8	30,8
No	18	69,2
Total	26	100

The majority of students surveyed when Table 2 is examined, 18 of the 26 students and 69,2 percent rate, before it is seen that the use of online learning environment in any field.

The survey, administered to students with some findings expectations for the environment used by students are included in this section. Results were obtained on the basis of students' opinions. The range for triple points likert-type questionnaires administered to students as follows:

- 1.00-1.66 Yes
- 1.67-2.33 Partially
- 2.34-3.00 No

This section of the questionnaire administered expectations for students; in terms of programming course aims to use the web based with environment. In this section, students are given the arithmetic mean (N) and frequency (%) distribution of the answers to the evaluation materials.

Table 3. Whether Worrying Use of Blended Environment

Be to use blended learning methods concern	N	%
Yes	3	11,5
Partially	12	46,2
No	11	42,3
Total	26	100

As shown in Table 3, web design course on the use of web-supported with environment, students in the learning process will be collated views on whether the worrying has been identified. Table 3, the arithmetic mean (X) is determined as 2.3077. Students accordingly, is to be found in a blended learning environment is seen as partly concern. The worrisome part is finding those of students and the number seems to be about equally worrisome finding.

The survey, administered expectations for students; adaptive online learning environment is evaluated in terms of ease of use. The arithmetic average (X) of the answers they give substance to the assessment and frequency distribution (%) is shown below.

Table 4. Adaptive Online Learning Results Relating to Environment Ease of Use

The ease of use of adaptive online learning environment	N	%
Yes	9	34,6
Partially	13	50
No	4	15,4
Total	26	100

Students are given in Table 4 opinions of adaptive online learning environment in relation to ease of use. Table 5, the arithmetic average (X) is determined as 1.8077. Accordingly, adaptive online learning environment, students are seeing the use of partially easy.

Applied in this part of the survey; online use of the adaptive learning environment aims to evaluate the benefits in terms of. In this section, the arithmetic average (X) of the answers they gave to the student evaluation material and frequency distribution (%) is shown below.

Tablo 5. Adaptive Online Learning Results Related to the Environment User Benefits

Usefulness of the use of adaptive online learning environment	N	%
Yes	17	65,4
Partially	7	26,9
No	2	7,7
Total	26	100

As shown in Table 5, regarding the use of adaptive online learning environment benefits, the opinions of the students have been identified. Table 5 arithmetic average (X) it was determined to be 1.4231. According to this, students would be helpful to indicate the use of adaptive online learning environment. Students are the ones who find them to be useful to use such an environment where very few, 2 students and the rate is 7.7%, it is shown in Table 5.

#### 4. Conclusion

The adaptation of the model used in the online environment; Based on the student's learning objectives which determine the level of knowledge and the student's learning style has a structure adapted to produce appropriate content. With respect to this criterion, the system resources of the adaptation model; the student's cognitive level of knowledge and learning styles. The system is adapted to perform the adaptive presentation technology. Student's preferences are controlled by the system together with the given adaptation.

Blended learning environments, prepared in accordance with the principle of adaptive online learning environment for the teaching environment is performed using the teaching software, there are worries about the students that they will be present in the environment, previously showed that this medium should be tried. Students are required to experience this environment before starting their university education. Ease of use specified in terms of positive opinions, thanks to the interface has been designed in a simple way. In future studies should also be designed interface provides user convenience. The majority of the students about the environment are of the same opinion on the usefulness. Such an environment will be useful in other courses.

As a result of studies has been observed, adaptable in online learning environments and studies in the field of blended learning models are long and comprehensive study process.

This study is a study that online learning can be adapted and used for the quantitative data for blended learning. Students' expectations given the location it is believed to shed light on this area of work. The realization of this study, as well as the environment will be designed for different courses and different features of the larger group of students is considered to be useful.

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