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COURSE CONTENT DEVELOPMENT PLATFORM IN DISTANCE EDUCATION

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Abstract: *It is seen that distance education method which is a rationalist, contemporary and innovative education system, is started to be used widely with transportation of education and training activities to internet area fast, in recent years. Also, distance education contributes to human's lifelong learning through giving education opportunities to working people whose financial situation and time are limited. With the development of information technologies in the world and Turkey, distance education methods and techniques also developed. Also the more the number of students taking part in distance education rises, the more the number of institutions giving distance education rises. Needs for preparing contents and managing these contents for lessons given by distance education method appeared with this raise. On this study, a platform has been developed for lecturers to create lesson contents and the efficiency of developed implementation has been analyzed statistically. It is aimed on distance education to design an efficient content development system through thinking the roles such as lecturers, managers and students.*

Keywords: *Distance Education, Creating Lesson Content*

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Uzaktan Eğitimde Ders İçeriği Oluşturma Platformu

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Özet: *Son yıllarda eğitim öğretim faaliyetlerinin hızla internet ortamına taşınmasıyla akılcı, çağdaş ve yenilikçi bir eğitim sistemi olan uzaktan eğitim yönteminin yaygın olarak kullanılmaya başlandığı görülmektedir. Ayrıca uzaktan eğitim, zamanı ve maddi olanakları kısıtlı olan çalışan insanlara eğitim imkânı vererek bireyin yaşam boyu eğitimine de katkı sağlamaktadır. Dünya'da ve Türkiye'de bilişim teknolojilerinin gelişimiyle beraber uzaktan eğitim yöntem ve teknikleri de gelişim göstermiştir. Ayrıca uzaktan eğitime katılan öğrenci sayısıyla beraber uzaktan eğitim veren kurum sayısı gün geçtikçe artış göstermektedir. Gerçekleşen bu artışla birlikte uzaktan eğitim yöntemiyle verilen dersler için içerik hazırlama, bu içerikleri yönetme ihtiyacı ortaya çıkmıştır. Bu çalışmada, öğretim elemanlarının ders içeriklerini oluşturabilecekleri bir platform geliştirilmiş ve geliştirilen uygulamanın verimliliği istatistiksel olarak analiz edilmiştir. Uzaktan eğitimde eğitmen, yönetici ve öğrenci gibi roller düşünülerek etkin bir içerik geliştirme sistemi tasarlanması amaçlanmıştır.*

Anahtar Kelimeler: *Uzaktan Eğitim, Ders İçeriği Oluşturma*

I. INTRODUCTION

Throughout history, mankind has been open to development and change, and the history of humanity is full of milestones taking it one step further with these developments. Obtained knowledge are transferred by oral and writing to the next generation. As long as the power of knowledge has been recognized, producing and transferring systematically it has gained importance (Sarpkaya, Karasekreter & Dogan, 2009). With the increase of mankind's continuous self-development and learning needs, learning methods and techniques have been developed. From the 20th century, people began to benefit from the technological opportunities in order to meet the desires and needs. The information obtained has begun to reach more people, produced information to be spread, the learning and teaching activities have begun to reach out to the masses than a privilege (Al & Madran, 2004).

Today, the rise of technology has brought innovations in many fields. Innovations have been revealed such as internet shopping, e-government applications, banking, education and training activities particularly with advances in web technology. These applications have been providing ease, speed in the social life, savings in time and labor, and offering as flexible and practical solutions in applications such as evaluation, feedback, storage and rearrangement of data (Demirel, 2004). These conveniences of the Internet have benefits in the field of distance education.

Distance education is a process that incorporates more than a century. Having begun with letters in the past, this adventure showed itself in radio television, video, conferencing, and web-based applications with the development of technology. It is undoubtedly very important to follow the development of educational activities around the world, to adapt to this development and to meet with innovative educational technology from the perspective of leadership. One of the most important advantages of web based education is its ability to create virtual campus and to enable asynchronous education. Students can reach to the system and its contents and they can benefit the contents without limitations. Along with cost advantages, these flexibilities constitute a proper model. (Carswell & Venkatesh, 2002).

Web-based distance is composed of two parts, as namely content and software. While the content of education covers all processes from the purpose of education to keeping the site updated, the software content is to fulfill its function in the computer system (Alkan, 1987). In this study, the solution of problem in formation of distance education have sought and a software was prepared for the course content formation platform. The electronic course content formation platform was named as the Ediop with its initials in Turkish (Elektronik ders içeriği oluşturma platformu). A platform having features such as role identification for people entering the system, creation of departments, programs, subjects and courses, the preparation of course contents by relevant roles, writing opinions of trainees was created. The relevant parts of commonly used learning management system in the world were examined during the development of the system, it is aimed to create a simpler and more user-friendly design.

All applications performed in environments where teachers and students are independent in means of time and space are named as "distance education" (Verduin and Clark, 1997). Distance education benefits from technology in mass education. In addition, it allows self-learning through individualized training and education activities. (Rosenberg, 2001). Is it believed that the distance education applications have been based on a very long history and even that they began in ancient times. The most important reason of this is the fact that the correspondence between teacher and student with educational purposes has been seen as a formal education (Irmak, 2007).

According to studies done by the Turkey Statistical Institute (TSI), Turkey's population having a gradually aging population structure has a young population compared with European countries. Forty one point one percent of Turkey's population is composed of children and young people. Compared to the European Union member countries, Turkey has the highest young population with 16.6%, while Spain and Italy have the minimum youth population with a 9.9% rate (TUIK, 2014). The young population for the future of Turkey has big potential. The widespread of education and the rise of education quality will move this potential in a positive direction. Otherwise, if the education is not adequate and in high quality, the young population can be transformed in a problem source for the country. For this reason, it is necessary to benefit from distance education, a modern and innovative education method, and to use it effectively. On the other hand, considering Turkey's socioeconomic status; the equality of opportunity can be provided due to distance education method which allows to bring education opportunities to students especially in rural areas. Thus, it becomes possible for individuals who wish to study to overcome their limitations. The teaching staffs at all levels in Turkey are inadequate in terms of quantity and quality. In particular inadequacy in the number of experts required faculty members at universities by the use of distance education methods. However, professionals working at a certain place in society, those having economic problems, the handicapped, and housewives with family responsibilities cannot participate to traditional education for reasons such as lack of time and resources.

The distance education institutions of today are faced with the requirement to restore a structure allowing stirring student up for course contents composed of online pages in place of traditional expressions, offering cooperation, providing online communities (Barry, 2007). It is possible to meet these requirements by the work of professionals in the field of design and development stage of course content. One of the primary objectives of education in the electronic environment is to offer personalized solutions to individual. While some people might learn fast, others learn slower and might need more examples. While some might concentrate on a subject for a long time, others might desire to work intermittently. Some prefer verbal description, some prefer drawings, and some prefer to learn by application. It is a must to follow users in all stages of the learning process, support their learning speed and style. As a result of pre-tests, monitoring and recording

user's study periods by the intermediate test results, it can be provided to adopt the content to an individual by adding video tapes, CDs, problem solving training or group activities (Allen, 2003). The provision of appropriate content which can be benefited by every student and support this content with learning theories will contribute to the efficiency of distance education.

Depending on the types of the materials, information sources are generally assessed based on authority, timeliness, coverage/relevance, prejudice/trustworthiness and accuracy. (McMurdo, 1998). The desired learning outcomes can be created if the learning systems is designed by considering the needs of students, academic staff and other users are composed with appropriate learning materials. The development of effective online learning materials should be based on proven and solid learning theories. However, some theorists on this issue employ the adaptation of proven theories to online learning environment while they are in search of new theories. However, as we have no chance to say that this is the best theory, it can benefit from more than one theory while online learning materials have been developed (Karatas, 2011). The content design is a must in the traditional education system. However, this should be much more structured in distance education. Prepared e-course applications should be in a structure equipped with interactive, simple and straightforward audio-visual materials, and the possibility to be developed and updated. Some factors such as age, education level, occupation, technology literacy, work situation, job status and expectations from the education of the target audience should be taken in consideration while designing the content.

II. METHOD

A. The Model of the Study and the Workgroup

Sampling of the survey is composed of 51 students studying actively at the Hitit University, Vocational School of Osmancık Ömer Derindere. Participants are composed of students taking the course of Programming Fundamentals in 2014- 2015 fall semester. The relevant course was supported by the Ediop software beside the formal education. The hardware specifications owned by today's computers are adequate for the software. It is to run on any browser as it is web based. It was given importance to the CSS section can be interpreted in the same way while writing it.

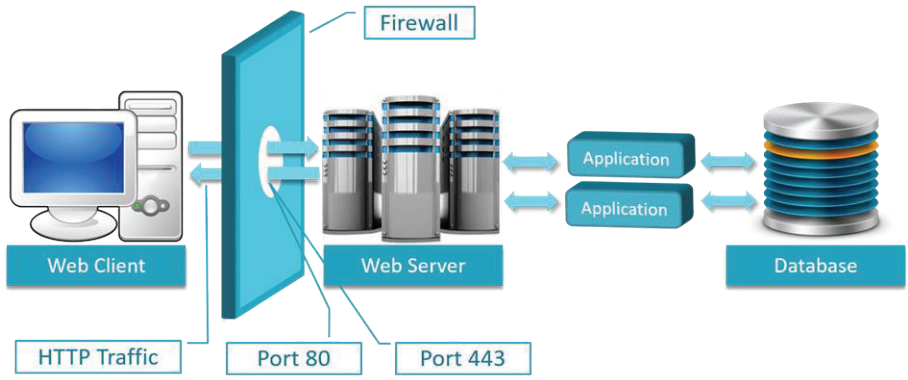

Figure 1. The operating principle of the Apache web server

The general scheme of the Ediop software is as shown in figure 1. While preparing the system, a server version of the Apache 2.4.10, an open source software version of PHP 5.5.15 and a database management system software version of MySQL 5.0.11 were used. In addition, HTML5, CSS, JavaScript technology were also used.

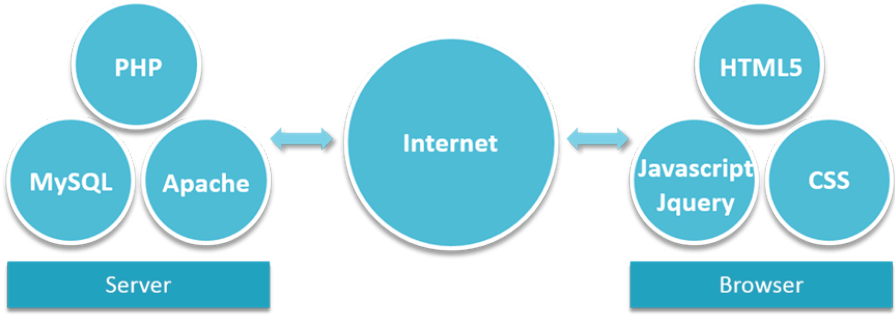

Figure 2. Web communication model

The design was paid attention to be simple and understandable for users while creating is as shown in figure 1. It was aimed that users can reach the desired information easily and comfortably. The Same results may not be obtained in the CSS browser. It was observed to reach the same image on every browser by considering these differences. The interface is designed in two parts, one student module and management module.

Figure 3. Student module

Student will see the Figure 3 screen when they access the system. After logging in, they can benefit from the system within its authority. Programs are situated on the application's main page. On this page, Students can select the programme for the department they are studying. Departments and Programmes added by the system administrator are seen on the application designed dynamically. Sample education videos, student's view and courses of the programme can be displayed by clicking the link "click here for programme details".

The courses and course content are created in the system previously defined by the instructor on the administrators' page. Also, there is an area where adding the department and programmes of department, sample training videos module and students' opinions and suggestions can be shared. The user should be logged in to make any comment and this comment should be approved by the administrator. There is a control panel for members on the system and page adding an edition panels are available. Most of these transactions processed in the administrators side are placed in on page of the students side. Students can see all of the lessons and topics of the courses on the same page. Thus the system is intended to be user-friendly and understandable.

Figure 4. Management module

The management module design and management roles are shown in Figure 4. It has all kinds of access in the master system. If necessary, new role definitions can be made. On the administrator pages, there are panels such as adding department, adding programme of department, adding video, comment control, creating course contents, controlling and editing members and adding system pages.

In this study, the characteristics needed in the content development environment were determined by considering the web-based literature and it was aimed to create a user-friendly interface in determining these characteristics. While students can reach the course by easily logging into the designed system, teachers can rearrange it by preparing the contents.

B. Data Collection Tools

Most of the articles in questionnaire form were prepared according to a five-point Likert scale in order to determine the opinions and expectations of students on the Ediop system. The articles where the participant did not marked, or marked more than one choice were not taken into account.

Table 1. The questionnaire given to students

Question 1	Availability of course subjects on the Ediop system all of the times has shortened my learning process
Question 2	The Ediop system has increased my education motivation
Question 3	I can better understand subjects thanks to the course and that I have benefited from the Ediop system
Question 4	The course screen on the Ediop system is visually easy and

	understandable
Question 5	My knowledge and skills related to courses has developed thanks to the course and that I benefited from the Ediop system
Question 6	I can easily access the Ediop system
Question 7	I think that it is easy to use the Ediop system
Question 8	I think that the course benefits from distance on the Ediop system it will be more efficient than the benefits of a face to face course
Question 9	Loading speed of the courses on the Ediop system is sufficient
Question 10	It has provided an advantage to reach the information anywhere and anytime due to the Ediop system
Question 11	I think that courses taken by the Ediop system are efficient
Question 12	I can receive the necessary help from the instructor from the course on the Ediop system
Question 13	Can you receive the adequate assistance for your wishes and questions on the system?
Question 14	Which is the most appropriate of the following three options?
Question 15	Which documents do you use on the Ediop system?
Question 16	At what frequency in a day do you use the Internet?
Question 17	For what purposes do you use the Internet?
Question 18	At what frequency do you access the Ediop system?

As seen in Table 1, there are survey questions answered by students.

C. Data Analysis

SPSS 22.0 software package was used for the relationship analysis between answers given for the survey question. Since the variables are in ordinal scale, the chi-square test of independence was used in order to determine if the relationship between two variables in the analysis.

As a result of the chi-square analysis, the relationship between answers for questions "Availability of course subjects on the Ediop system all of the time has shortened my learning process" and "distance education, formal education or education choice using both found" was found statistically significant ($p<0.05$).

The relationship between the answers for questions "Can you receive the adequate assistance for your wishes and questions on the Ediop system?" and "distance education, formal education or education choice using both found" was found statistically significant ($p<0.05$).

The relationship between the answers for questions "At what frequency in a day do you use the Internet?" and "For what purposes do you use the Internet?" was found statistically significant ($p<0.05$).

The relationship between the answers for questions "At what frequency in a day do you use the Internet?" and "At what frequency do you access the Ediop system?" was found statistically significant ($p<0.05$).

The relationship between the answers for questions "For what purposes do you use the Internet?" and "At what frequency do you access the Ediop system?" was found statistically significant ($p<0.05$).

III. FINDINGS AND INTERPRETATIONS

A. Demographic Characteristics and Frequency Analysis of the Students Participating in the Survey

Table 2. Situation of students participating in the survey

Gender	Frequency (f)	Frequency %
Male	38	74.5
Female	13	25.5
Total	51	100

Frequency analysis of the gender situation of students participating in the survey results are given in Table 2.

Table 3. Age situation of students participating in the survey

Age	Frequency (f)	Frequency %
17	1	2.0
18	7	13.7
19	12	23.5
20	16	31.4
21	6	11.8
22	2	3.9
23	6	11.8
25	1	2.0
Total	51	100

Frequency analysis of the age situation of students participating in the survey results are given in Table 3.

B. Frequency Analysis of the Answers of the Students Participating in the Survey

Table 4. Answers given for the question " Availability of course subjects on the Ediop system all of the times has shortened my learning process "

Question 1	Frequency (f)	Frequency %
1 (Strongly Agree)	10	19.6
2 (Agree)	21	41.2
3 (Agree Partly)	7	13.7
4 (Disagree)	9	17.6
5 (Strongly Disagree)	4	7.8
Total	51	100

The frequency analysis of answers for the question “Availability of course subjects on the Ediop system all of the times has shortened my learning process” is given in Table 4.

Table 5. “Answers given for the question “The Ediop system has increased my education motivation”

Question 2	Frequency (f)	Frequency %
1 (Strongly Agree)	14	27.5
2 (Agree)	16	31.4
3 (Agree Partly)	13	25.5
4 (Disagree)	1	2.0
5 (Strongly Disagree)	7	13.7
Total	51	100

Frequency analysis of answers given for the question in the survey “The Ediop system has increased my education motivation” is given in Table 5.

Table 6. Answers given for the question “I can better understand subjects thanks to the course and that I have benefited from the Ediop system”

Question 3	Frequency (f)	Frequency %
1 (Strongly Agree)	17	33.3
2 (Agree)	23	45.1
3 (Agree Partly)	11	21.6
4 (Disagree)	0	0
5 (Strongly Disagree)	0	0
Total	51	100

Frequency analysis of answers given for the question in the survey "I can better understand subjects thanks to the courses and that I have benefited from the Ediop system" are given in Table 6.

Table 7. Answers given for the question "The course screen on the Ediop system is visually easy and understandable"

Question 4	Frequency (f)	Frequency %
1 (Strongly Agree)	20	39.2
2 (Agree)	15	29.4
3 (Agree Partly)	7	13.7
4 (Disagree)	9	17.6
5 (Strongly Disagree)	0	0
Total	51	100

Frequency analysis of answers given for the question in the survey "The course screen on the Ediop system is visually easy and understandable" is given in Table 7.

Table 8. Answers given for the question "My knowledge and skills related to courses has developed thanks to the course and that I benefited from the Ediop system"

Question 5	Frequency (f)	Frequency %
1 (Strongly Agree)	15	29.4
2 (Agree)	20	39.2
3 (Agree Partly)	14	27.5
4 (Disagree)	2	3.9
5 (Strongly Disagree)	0	0
Total	51	100

Frequency analysis of answers given for the question in the survey "My knowledge and skills related to courses has developed thanks to the course and that I benefited from the Ediop system" is given in Table 8.

Table 9. Answers given for the question “I can easily access the Ediop system”

Question 6	Frequency (f)	Frequency %
1 (Strongly Agree)	28	54.9
2 (Agree)	18	35.3
3 (Agree Partly)	2	3.9
4 (Disagree)	3	5.9
5 (Strongly Disagree)	0	0
Total	51	100

Frequency analysis of answers given for the question in the survey "I can easily access the Ediop system" is given in Table 9.

Table 10. Answers given for the question “I think that it is easy to use the Ediop system”

Question 7	Frequency (f)	Frequency %
1 (Strongly Agree)	24	47.1
2 (Agree)	17	33.3
3 (Agree Partly)	5	9.8
4 (Disagree)	5	9.8
5 (Strongly Disagree)	0	0
Total	51	100

The frequency analysis of answers for the question "I think that it is easy to use the Ediop system" is given in Table 10.

Table 11. Answers given for the question “I think that the course benefits from distance on the Ediop system it will be more efficient than the benefits from a face to face course”

Question 8	Frequency (f)	Frequency %
1 (Strongly Agree)	18	35.3
2 (Agree)	6	11.8
3 (Agree Partly)	16	31.4
4 (Disagree)	9	17.6
5 (Strongly Disagree)	2	3.9
Total	51	100

The frequency analysis of answers for the question "I think that the course benefits from distance on the Ediop system it will be more efficient than the benefits of a face to face course" is given in Table 11.

Table 12. Answers given for the question “Loading speed of the courses on the Ediop system is sufficient”

Question 9	Frequency (f)	Frequency %
1 (Strongly Agree)	14	27.5
2 (Agree)	25	49
3 (Agree Partly)	7	13.7
4 (Disagree)	5	9.8
5 (Strongly Disagree)	0	0
Total	51	100

The frequency analysis of answers for the question "Loading speed of the courses on the Ediop system is sufficient" is given in Table 12.

Table 13. Answers given for the question “It has provided an advantage to reach the information anywhere and anytime due to the Ediop system”

Question 10	Frequency (f)	Frequency %
1 (Strongly Agree)	22	43.1
2 (Agree)	22	43.1
3 (Agree Partly)	5	9.8
4 (Disagree)	2	3.9
5 (Strongly Disagree)	0	0
Total	51	100

The frequency analysis of answers for the question "It has provided an advantage to reach the information anywhere and anytime due to the Ediop system" is given in Table 13.

Table 14. Answers given for the question “I think that courses taken by the Ediop system are efficient”

Question 11	Frequency (f)	Frequency %
1 (Strongly Agree)	15	29.4
2 (Agree)	17	33.3
3 (Agree Partly)	17	33.3
4 (Disagree)	2	3.9
5 (Strongly Disagree)	0	0
Total	51	100

The frequency analysis of answers for the question "I think that courses taken by the Ediop system are efficient" is given in Table 14.

Table 15. Answers given for the question “I can receive the necessary help from the instructor from the course on the Ediop system”

Question 12	Frequency (f)	Frequency %
1 (Strongly Agree)	17	33.3
2 (Agree)	16	31.4
3 (Agree Partly)	5	9.8
4 (Disagree)	6	11.8
5 (Strongly Disagree)	7	13.7
Total	51	100

The frequency analysis of answers for the question "I can receive the necessary help from the instructor from the course on the Ediop system" is given in Table 15.

Table 16. Answers given for the question “Can you receive the adequate assistance for your wishes and questions on the Ediop system?”

Question 13	Frequency (f)	Frequency %
1 (Receive No Help)	6	11.8
2 (Receive Partly Help)	25	49
3 (Receive Help)	20	39.2
Total	51	100

The frequency analysis of answers for the question "Can you receive the adequate assistance for your wishes and questions on the Ediop system?" is given in Table 16.

Table 17. Answers given for the question “Which is the most appropriate of the following three options?”

Question 14	Frequency (f)	Frequency %
1 (Education in only classroom environment)	20	39.2
2 (Only distance education)	6	11.8
3 (Both)	25	49
Total	51	100

The frequency analysis of answers for the question "Which is the most appropriate of the following three options?" is given in Table 17.

Table 18. Answers given for the question “Which documents do you use on the Ediop system?”

Question 15	Frequency (f)	Frequency %
1 (Course document (pdf))	10	19.6
2 (Course presentations)	3	5.9
3 (Video)	12	23.5
4 (All)	26	51
Total	51	100

The frequency analysis of answers for the question "Which documents do you use on the Ediop system?" is given in Table 18.

Table 19. Answers given for the question “At what frequency in a day do you use the Internet?”

Question 16	Frequency (f)	Frequency %
1 (lower than 1 hour)	12	23.5
2 (between 1-3)	15	29.4
3 (more than 3 hours)	24	47.1
Total	51	100

The frequency analysis of answers for the question "At what frequency in a day do you use the Internet?" is given in Table 19.

Table 20. Answers given for the question “For what purposes do you use the Internet?”

Question 17	Frequency (f)	Frequency %
1 (Research and Training)	19	37.3
2 (Entertainment and social media)	22	43.1
3 (News)	2	3.9
4 (Others)	8	15.7
Total	51	100

The frequency analysis of answers for the question "For what purposes do you use the Internet?" is given in Table 20.

Table 21. Answers given for the question “At what frequency do you access the Ediop system?”

Question 18	Frequency (f)	Frequency %
1 (once a day)	17	33.3
2 (once a week)	23	45.1
3 (once two week)	1	2
4 (once a month)	10	19.6
Total	51	100

The frequency analysis of answers for the question "At what frequency do you access the Ediop system?" is given in Table 21.

C. Reliability Analysis

Cronbach's alpha reliability analysis was used to measure the reliability of the survey. The reliability coefficients related to the distance education scale was calculated as 0.829 according to this it was determined that the survey is reliable 82.9% level.

Table 22. Cronbach's Alpha Coefficients Related To the Questionnaire Items

Item	Cronbach's alpha coefficient of the deleted item	Item	Cronbach's alpha coefficient of the deleted item
Question 1	.823	Question 7	.808
Question 2	.789	Question 8	.852
Question 3	.815	Question 9	.825
Question 4	.812	Question 10	.829
Question 5	.811	Question 11	.798
Question 6	.825	Question 12	.787

The reliability coefficients obtained when the item is deleted are shown in the above Table 22. Regarding the results, no significant difference can be obtained with the current reliability, coefficients have not been observed. Accordingly, all questions of scale reliability analysis were included in the analysis.

D. Factor Analysis

A factor analysis was performed in order to reduce the size for 12 questions in the distance education scale.

Table 23. Bartlet's test of sphericity and Kaiser-Meyer-Olkin Value

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.710
Bartlet's test of sphericity	Chi-square Statistics	272.882
	sd	66
	Significance	.000

Bartlet's test of sphericity and Kaiser-Meyer-Olkin Measure of Sampling Adequacy related to the answers on the distance education scale are shown in table 23. According to Bartlet's test of sphericity, it was determined that

there was a significant correlation among values depending on the significance value ($p<0.05$). According to the KMO statistics, about 71% was determined to be appropriate to the scale factor analysis.

Table 24. Test Values of Eigen Factor Analysis

Ingredient	Eigen value		Sum of squares of Loads at the Result of Rotation	
	Total	Total	Variance%	Cumulative%
1	4.635	3.743	31.192	31.192
2	1.701	1.889	15.745	46.937
3	1.325	1.871	15.595	62.532
4	1.100	1.258	10.483	73.015
5	.808			
6	.610			
7	.556			
8	.398			
9	.301			
10	.240			
11	.179			
12	.147			

According to the Eigen factor analysis, 4 factors of which Eigen value are more than 1 were determined and has been shown table 24. The obtained 4 factors explain the %73,015 of the total variability.

Table 25. The Rotated Ingredient Matrix

Item	Factor			
	1	2	3	4
Question 12	.811			
Question 7	.730			
Question 2	.719			
Question 1	.717			
Question 4	.696			
Question 11	.651			
Question 5	.647			
Question 6		.800		
Question 9		.758		
Question 3			.813	
Question 8			.684	
Question 10				.847

The rotated ingredient matrix related to all of the questions is shown in Table 25. In this matrix, it is seen under which factor each question is cumulated. In addition, the correlation value between the question and its factor is shown in the Table.

Table 26. Factor Names

Factor	Factor Name
1. Factor	EDIOP System and Course Characteristics
2. Factor	EDIOP System Speed
3. Factor	Distance Education Efficiency
4. Factor	Accessibility to the EDIOP system

As seen in table 26, A total of 12 questions were grouped into 4 factors. The obtained 4 factors could have been explained at about 73% level. According to the factor analysis, the denominations were made in Table 25 for 4 factors.

IV. CONCLUSION AND SUGGESTIONS

The purpose of this study was to develop a platform where instructors can create course content and to investigate the effect the developed platform has on the success. The application was used for Programming Fundamentals course in Computer Programming Program of the Osmancık Ömer Derindere Vocational School in the 2014-2015 fall semester and the student views were analyzed statistically.

It can be said that the distance education is more economic and flexible than formal education. However, the creation need of appropriate and effective software arises. While studies in this field increase continuously in means of quality and quantity, the studies related to needs of the institutions is seen literally as a lacking. In this case, in the collaborative studies based on people or institutions with similar needs can be obtained more efficiently.

In the statistical part of the study, the efficiency of the Ediop system used at the Osmancık Ömer Derindere Vocational School in the Hitit University was examined using survey techniques. As a result of reliability analysis, it was concluded that the survey is reliable in line with the results of responses to the questionnaire. In the analysis of the survey results, while more than 60% of student think that the availability of course content always shortens the learning process, 15% of them do not share this view. While 59% of them believe that the system increases motivation, 15% of them declared that it does not increase it. While 70% of them believe that their knowledge and skills had been developed due to the course benefits from the system, the rate of non-granted students is about 4%. 39% of participant preferred only for formal education, about 12% of them preferred distance education and 49% preferred both at the same time.

It is concluded that most of the students lean generally towards the formal education together with distance education. A dimension reduction was performed by applying the factor analysis for the questions of the Distance Education Scale in the survey. It was determined that the factor analysis could be explained by total four factors of the Distance Education Scale.

These factors were determined as the Ediop system and course features, the Ediop system speed, distance learning system efficiency and accessibility to the Ediop system. In the survey results, the main reasons of the negative views from students on the Ediop system regarding to findings are as follows; the lack of adequate communication with instructors by electronic means during the course presentation and out of the course, Non-use of Internet or the Ediop system for sufficient time by some of the students, face-to-face training habits prejudice against distance education have been seen. It is expected that students gain ground in terms of gaining a better education in case of to bringing solutions to problems.

As a consequence, it is clearly seen that web technologies have initiated a new era in education and training in many areas. However, the use of technological advances in education is not enough for effective training. The developed applications must be supported by scientific studies and prepared learning contents must be supported by theories. The interactive applications should also be developed and the involvement of the students should be increased as much as possible. The future of web-based education depends on the quality of education content and in accordance of the overall system with the standard.

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