



Academician Views on the Use of MS Teams in Distance Education: A Case Study

Uzaktan Eğitimde MS Teams Kullanımına İlişkin Akademisyen Görüşleri: Bir Durum Çalışması

Doç. Dr. Tayfun YÖRÜK¹

Öz

Teknolojik gelişmelerle birlikte hayatımızın temel parçalarından biri olan uzaktan eğitim, adından söz ettirmeye başladığı ilk günlerden bu güne eğitim teknolojileri alanında ilgi çeken bir konu olmuştur. Yer ve zamandan bağımsız olmasının yanı sıra eş zamanlı ve farklı zaman seçeneklerinin bulunması özellikle yükseköğretimde uzaktan eğitimi daha cazip hale getirmiştir. Uzaktan eğitimin etkin bir şekilde devam edebilmesi, öğrenme materyallerinin kalitesinin ve kalıcılığının artırılabilmesi için öğrenme yönetim sistemlerine ihtiyaç duyulmaktadır. Bu çalışmada yükseköğretimde uzaktan eğitimde sıklıkla kullanılan öğrenme yönetim sistemlerine ilişkin öğretim elemanlarının görüşleri alınmıştır. Nitel çalışma yöntemlerinden durum çalışmasının tercih edildiği çalışmaya dokuz akademisyen katılmıştır. Çalışma verileri, katılımcılarla yüz yüze yapılan görüşmeler ve bu görüşmelerde kullanılan yarı yapılandırılmış görüşme formu aracılığıyla toplanmıştır. Elde edilen verilere içerik analizi uygulanarak cevaplar gruplandırılmış; temalar ve alt temalar elde edilmiştir. Çalışma bulguları incelendiğinde katılımcıların verdikleri cevapların üç tema altında toplandığı görülmüştür. Bu temalar öğrenme yönetim sistemine ilişkin “sorunlar”, “fayda ve avantajlar” ve “beklentiler ve çözümler” olarak adlandırılmıştır.

Anahtar Kelimeler: Öğrenme yönetim sistemleri, durum çalışması, uzaktan eğitim

Makale Türü: Araştırma

Abstract

Distance education, which is one of the basic parts of our lives with technological developments, has been an interesting subject in the field of educational technologies since the first days it started to make a name for itself. In addition to being independent from place and time, the availability of simultaneous and different time options has made distance education more attractive, especially in higher education. Learning management systems (LMSs) are needed in order for distance education to continue effectively and to increase the quality and permanence of learning materials. In this study, the opinions of the instructors regarding the learning management systems, which are frequently used in distance education in higher education, were taken. Nine academicians participated in the study, in which case study was preferred as one of the qualitative study methods. The study data were collected through face-to-face interviews with the participants and the semi-structured interview form used in these interviews. By applying content analysis to the obtained data, the answers were grouped; themes and sub-themes were obtained. When the study findings were examined, it was seen that the answers given by the participants were grouped under three themes. These themes were named as “problems”, “benefits and advantages” and “expectations and solutions” regarding the learning management system.

Keywords: Learning management systems, case study, distance education

Paper Type: Research

¹Akdeniz Üniversitesi, Uygulamalı Bilimler Fakültesi, Yönetim Bilişim Sistemleri Bölümü, tayfun@akdeniz.edu.tr.

Introduction

The rapid developments in the field of technology in the last 20 years have deeply affected many sectors. It can be said that the widespread use of the Internet and the increase in innovations in web technologies have a large share in this effect. Undoubtedly, the education sector has also taken its share from these developments, and the importance of obtaining information and making learning activities more efficient with the effective use of information technologies has become evident. The diversification of the tools introduced in the field of educational technology, which is a system that enables the design of effective learning environments, solving the problems that arise in these environments, and increasing the permanence and quality of learning objects, has drawn attention to innovative methods rather than traditional methods in education (Altıparmak et al., 2011). Within the scope of these innovative methods, solutions such as distance education and e-learning have been put forward for individuals who are faced with situations such as economic problems and physical impossibilities (Özonur et al., 2019).

With the rapid development of IT infrastructures in the 2000s, it is possible to say that many educational institutions have increased their interest in distance education (Çavuşoğlu, 2013). In addition, the opening of distance education centers in many higher education institutions is a natural result of this interest (Kılınç, 2017). Today, distance education, which enables the activities of students and instructors to be carried out with information technologies and mail tools regardless of time and place, can be defined as one or more tools are used to deliver educational content to students and a regular interaction between the teacher and the student is provided synchronously and asynchronously (İşman, 2008; Seaman et al., 2018).

With today's technologies used in distance education, teaching has shifted to virtual environments, expressions such as “virtual school” have entered our literature, and thus the concept of “e-learning” has been introduced. E-learning, which is basically a distance education, includes wide area networks such as the Internet, especially computers, Internet services, telecommunication tools such as radio and television, broadcasting tools such as satellites used in the transmission of images and sounds. Coldeway (1986) mentioned 4 different approaches to e-learning, different from traditional teaching techniques, these approaches and the technologies used are shown in Figure 1 (Gülbahar, 2009):

- a) Same time – Same place
- b) Different time – Same place
- c) Same time – Different place
- d) Different time – Different place

Figure 1. E-Learning Approaches

SIMULTANEOUS (SYNCHRONOUS)			
SAME PLACE	Same Time + Same Place	Same Time + Different Place	DIFFERENT PLACE
	Blackboard Overhead projector Computer – Projection System Document Camera	Audio Conference Teleconferencing Satellite broadcast – TV Internet – Computer Chat	
	Computer Aided Education Multimedia applications CD-ROM,DVD	Internet-Computer WWW Email Discussion List Forum	
	Different Time + Same Place	Different Time + Different Place	
DIFFERENT TIME (ASYNCHRONOUS)			

(Gülbahar, 2009)

It can be said that educational institutions have started to integrate the most appropriate hardware and software technologies into their teaching processes in order to get the most out of these e-learning environments and to achieve success in this type of education. As a result of this integration, institutions need educational software under the title of learning management system in order to function in subjects such as the management of educational content, monitoring of instructors and students, and individualization of the learning process (Özonur et al., 2019). Learning management systems help instructors and students to discuss course content by sending each other, to take care of students' learning processes, and to manage learning activities in an online environment (Falvo & Johnson, 2007). Of course, the biggest advantage of a learning management system is to provide an environment where learning activities can take place regardless of time and place (Epping, 2010). Based on these functions and advantages, the learning management system is the infrastructure that sets and evaluates individual and institutional learning goals, monitors the progress of instructors and students in line with these goals, and undertakes the task of collecting and presenting data in order to fully control the education-training process of an organization (Szabo, 2002).

Learning management systems need a set of tools integrated into them in order to achieve the above-mentioned goals. All of these tools can be found in a learning management system or some of the tools can be included depending on the functionality of the software. Llamas-Nistal et al. (2010) listed the tools that can be found in a learning management system as follows:

- | | |
|------------------------------------------|-----------------------|
| a) Course content distribution | j) Calendar |
| b) Email communication | k) FAQ |
| c) Assignment distribution and follow-up | l) Wiki |
| d) Discussion environments | m) Blog |
| e) Evaluation | n) Glossary |
| f) Self-evaluation | o) Video Conferencing |
| g) Survey | p) Notebook |
| h) Group work | q) Learner portfolio |
| i) Instant messaging | r) Learner monitoring |

When the literature is examined, it is seen that many studies have been done on learning management systems. According to the study by Emelyanova and Voronina (2014), the efficient and effective use of learning management systems depends on the way the instructors and students accept and perceive the systems used. In another study examining student satisfaction on learning management systems, Naveh et al. (2010) revealed that there is a statistically low-level significant relationship between the use of learning management system and satisfaction. In addition, studies comparing the feature-based advantages and disadvantages of different learning management systems in terms of usability by stakeholders have also contributed to the literature (Lonn et al., 2011; Yapici & Akbayin, 2012). In addition to these studies, the effects of learning management systems on students' academic success were also examined, and it was concluded that students became more advantageous academically in the courses in which the learning management system was used (Han & Shin, 2016; Sezer & Korucu, 2019; Saygılı & Çetin, 2021).

As it can be understood from the studies mentioned above, it has been observed that learning management systems focus on the satisfaction dimension, the effect on academic achievement and a limited amount of usability dimension in the literature. In addition, the fact that the studies mostly center the student can be shown as another limitation. As we will remember from its definition, learning management systems are software that provide interaction between the instructor and the students. For this reason, it is important to examine

the learning management systems from the perspective of instructors, who are another main user.

In the light of the above information, the aim of this study is to reveal the problems, benefits and expectations of academicians from a learning management system from the perspective of academics. Within the scope of this purpose, the following questions formed the basis of the research:

1. What are the problems experienced by academics regarding a learning management system they use?
2. What are the academic views on the benefits of your learning management system?
3. What are the expectations of academics from a learning management system in general?

1. Method

According to Yin (2011), we need qualitative research to understand real-life events. Because qualitative research allows investigating how different people think under different conditions in daily life by directly participating in the contextual richness of real life. For this reason, in this study, the views of academicians on the use of distance education learning management systems, which have become a daily routine in their working life, have been tried to be revealed by qualitative methods. The reason why the case study is preferred in qualitative research designs in the study is that in this type of design, researchers can collect detailed data about a situation and conduct an in-depth analysis (Stake, 1995). Due to the fact that the study is being carried out at Akdeniz University and the choice of Akdeniz University as the learning management system is Microsoft (MS) Teams, only MS Teams have been examined within the scope of the study. As it is known, MS Teams is a cloud-based application that allows interaction with other MS applications, file sharing and organizing audio and video meetings. Although this application is not intended to be an LMS and does not have all the features of an LMS, it is seen that MS Teams is used as an LMS with other applications and especially Office 365 support to the MS family (Laquindanum, 2022). For this reason, this study examines LMS views on the use of MS Teams and from this section onwards, the term LMS is used for MS Teams and its related applications. Thus, with the prepared semi-structured interview form, it is aimed to generalize the answers to other learning management systems analytically.

1.1. Publication Ethics Statement

Ethics committee approval was obtained for this study with the decision of Akdeniz University Social and Human Sciences Scientific Research and Publication Ethics Committee, dated 01.03.2021, and numbered 95.

1.2. Participants

Participants were selected with easily accessible case sampling, one of the purposive sampling methods used in qualitative research (Patton, 1987). The participants of the study are nine academicians working at Akdeniz University in the spring semester of 2020-2021. The demographic information of the participants is presented in Table 1. As can be seen in Table 1, the participants were coded without giving their names for confidentiality reasons.

Table 1. Demographic information of the participants

Code	Title	Department	Seniority
A	Prof.	Marketing	21
B	Assoc. Prof.	Marketing	16
C	Assoc. Prof.	Management Information Systems	15
D	Assoc. Prof.	Educational Sciences	12

E	Assoc. Prof.	Management Information Systems	12
F	Assist. Prof.	Insurance	14
G	Assist. Prof.	Sports Management	6
H	Assist. Prof.	Finance and Banking	4
I	Assist. Prof.	Educational Sciences	4

1.3. Data Collection Tool

Semi-structured interview forms were used as a data collection tool in the study. Before starting the interviews, the participants were informed about the study. While preparing the interview form, the literature was meticulously scanned (Almarashdeh, 2016; Chung et al., 2013; Nurakun Kyzy et al., 2018; Tagoe & Cole, 2020); past studies were examined and care was taken to examine the issues experienced by the academicians but not mentioned in depth.

1.4. Data Analysis

The answers to the open-ended questions in the interviews conducted on a voluntary basis were recorded with the consent of the participants and then transcribed. Content analysis was applied to the obtained transcripts with the NVIVO 10.0 package program, and the themes related to the research questions and sub-themes of these themes were revealed with the coding made as a result of the content analysis. While these themes and sub-themes were included in the findings section, these sub-themes were tried to be explained with the opinions of the participants.

2. Findings

The findings of the study consist of the themes and sub-themes obtained as a result of the content analysis. Accordingly, it was seen that the findings were gathered under three themes “Problems”, “Benefits and Advantages” and “Expectations and Solutions”. It was observed that the academicians mostly gave answers to the sub-themes of “environment and interface” and “evaluation system” of the learning management system under the theme of “Problems”.

2.1. Theme 1: Problems

The distribution of the answers and sub-themes for the “Problems” theme is given in Table 2. Under this theme, both the problems experienced by the academicians during the use of the learning management system and the environmental problems are included.

Table 2. Sub-themes of the “Problems” theme.

Sub-theme	A	B	C	D	E	F	G	H	I	n	%
Environment and Interface	√	√	√	√	√	√	√		√	8	88,9
Evaluation system	√	√	√		√		√	√		6	66,7
Course content		√	√		√		√		√	5	55,6
Authorization and Monitoring		√		√	√		√			4	44,4
Export			√		√					2	22,2
Privacy					√					1	11,1

When Table 2 is examined, the “environment and interface” sub-theme (eight participants, 88.9%) and the “evaluation system” sub-theme (six participants, 66.7%) were reported as the highest problem, respectively, “course content”, “authorization and monitoring”, “export” and “privacy” were followed by sub-themes. Some of the participant views on the sub-theme “Environment and interface” are as follows:

“I had problems such as not being able to understand both when two people were speaking at the same time because all sounds came from the same source” (A1, 1).

“Among the issues, I can point out that students are not able to enter the discussion from the main screen.” (B1, 1)

“I can cite the problems as the absence of a time counter-like structure in the system. It is a handicap that the duration information is not kept from the moment the recording starts.” (C1, 1)

“The main issue I'm facing may be the lack of participation in the Teams platform. I think that a full learning environment cannot be provided because students do not have to attend classes due to pandemic conditions and can watch the course recordings later.” (D1, 1)

“Because Teams is an international software that has attracted great attention and is widely used by both businesses and schools during the pandemic process, the application crashed from time to time and I had access problems.” (E1, 1)

Some of the views of the participants regarding the “Evaluation system” sub-theme mentioned by six participants are as follows:

“With exam security, we could only use the “mix questions and options” feature in the created question form. That was the second biggest downside for me.” (B1, 2)

“There are great difficulties in the exam system, especially when transferring mathematical questions to the system, and the inability to use mathematical expressions in the choices is another problem.” (C1, 2)

“The fact that there is no obligation to open the camera/microphone during the exams provides the opportunity to copy.” (G1, 2)

“I find it problematic as an exam platform. It is impossible on this platform to conduct the exams in a fair environment and in accordance with their purpose.” (H1, 2)

Five participants expressed their opinions on the “course content” theme, which is another sub-theme. Some of the opinions are;

“I think the biggest problem is that the course recordings are deleted within a few weeks.” (B1, 3)

“Within the scope of the license agreement, your access to the synchronous lecture video recordings in the system is limited to 20 days. This creates pressure on the instructor to download the lecture recording and upload it to the files section. In addition, since the files uploaded by the teacher can be deleted and changed by the students, it becomes necessary to constantly check the files.” (E1, 3)

“When you finish the course recording, you cannot transfer the files with a click of a button, some action is required” (I1, 3)

Four participants expressed their opinions on the sub-theme of “authorization and monitoring”. Some of these views are as follows:

“The reporting area of the system is quite limited. Detailed movement records of teachers and students cannot be obtained completely.” (D1, 4)

“In the usage part, for example, as a teacher, I can mute all the participants, but I cannot unmute the student I want to speak to, or I cannot turn them back on myself as I have muted all the participants.” (E1, 4)

“I think that we do not have a chance to know when students do not participate in the course activities for a full time, or when they enter and exit for a short time. I would like to see which student and how many minutes are left in that lesson in a report about attendance.” (G1, 4)

One of the views expressed by two Participants in the sub-theme “Export”:

“The fact that the grades created at the end of the exam cannot be transferred to the student information system, which I know is not a disadvantage of the system, but it can be shown as a problem that it does not give confidence even when transferring to Excel” (C1, 5)

One participant commented on the “Privacy” sub-theme:

“Also, data security issues such as privacy, digital privacy, and protection of my personal data always remain a mystery.” (E1, 6)

When the findings related to the “Problems” theme are analyzed, it is seen that the majority of the participants complained about the LMS environment and interface used. Among the reasons for this may be the fact that the main purpose of the system used as an LMS is not an LMS. It is possible to understand this immediately from the second sub-theme. Because it is seen from the second sub-theme that a significant part of the participants are uncomfortable with the evaluation system. The lack of adequate security for online exams is also a major problem. When we look at the views on the sub-theme, exam security is one of the most important features that should be included in a good LMS, followed by having an exam system that allows different question types.

2.2. Theme 2: Benefits and Advantages

The second theme focuses on the benefits and advantages of learning management systems from the perspective of academics. When the answers given by the participants under the “Benefits and Advantages” theme were examined, it was seen that this theme was gathered under six sub-themes. The sub-themes of the theme are presented in Table 3.

Table 3. Sub-themes of “Benefits and Advantages” theme

Sub-Theme	A	B	C	D	E	F	G	H	I	n	%
User-friendly interface		√		√		√				3	33,3
Increased interaction	√			√	√					3	33,3
Evaluation			√	√						2	22,2
Rapid data sharing	√				√					2	22,2
Integration possibility					√					2	22,2
Continuous education									√	1	11,1

Three participants expressed their opinions on the sub-theme “User-friendly interface”. Some of these views are as follows:

“The simplicity of the user interface is an important advantage.” (B2, 1)

“Easy to use, user-friendly interface, easy to navigate the application and access to the lessons...” (D2, 1)

“As my experience in LMS usage increases, I discover new features of the application. Although I thought it was a complex system at first when I started using it, as I got used to the interface, I started to think that it was user-friendly. Its user-friendliness seems to be an advantage.” (F2, 1)

33.3% of the participants (three participants) expressed opinions that fall under the title of “increased interaction” under the theme of benefits and advantages:

“The most important advantage of the learning management system is that it does not compare with any problem in bringing students and teachers together in the same environment at a time when the whole world is teaching online during the pandemic process. With the help of camera and microphone, it brought together learners and teachers on the same platform with the least mistakes.” (A2, 2)

“I see it as an important benefit that it offers the opportunity to attend classes for a large class size of up to 200 students.” (E2, 2)

Two participants commented on the “evaluation” sub-theme, similar to the previous theme:

“The exam system, on the other hand, was advantageous in that it instantly turned into grades, if we did not take into account the terrible time loss in the preparation process.” (C2, 3)

“...we cannot ignore the fact that the platform offers solutions in exam management issues.” (D2, 3)

Again, it was seen that the opinions expressed by two of the participants were gathered under the sub-theme of “Rapid data sharing”:

“We have the ability to quickly share data on the computer” (A2, 4)

“...I can say as a benefit that it enables synchronous lessons with video and audio, screen plus document plus presentation plus video and similar sharing in the distance education process” (E2, 4)

When the opinions in the second theme are analyzed, it is seen that the sub-themes have approximately equal importance. Although at first glance it may seem like a contradictory answer to the first theme, the emphasis on the ease of use of the user interface in this theme also varies according to the point of evaluation. The fact that the ease of use mentioned in the first theme is related to education and training processes, while the ease of use in this theme is handled in terms of running the application and navigating through the menus in terms of general use, explains the presence of the same sub-theme in the two themes. This is also true for the “Evaluation” sub-theme under this theme. Participants also emphasized that the LMS used under the sub-theme of “increased interaction” provides student-teacher collaboration both synchronously and asynchronously. Therefore, when the opinions are evaluated as a whole, the features that should be included in an LMS include general ease of use, having a structure that encourages interaction and facilitating assessment processes.

2.3. Theme 3: Expectations and Solutions

The last theme to be given under the heading of findings is “Expectations and Solutions”. This theme, on the other hand, includes suggestions for solutions to the problems that academics have declared regarding learning management systems, while also examining the expectations about how a learning management system will be in the future. While there were 5 sub-themes under this theme, 14 different opinions were obtained from nine participants. The sub-themes of this theme are shown in Table 4.

Table 4. Sub-themes belonging to the theme of “expectations and solutions”

Sub-Theme	A	B	C	D	E	F	G	H	I	n	%
Interface and Interaction	√	√	√			√		√		5	55,6
Exam management				√			√		√	3	33,3
Monitoring and Reporting			√	√					√	3	33,3
Hardware and software infrastructure			√		√					2	22,2
Course content sharing				√						1	11,1

Five (55.6%) of the participants presented their opinions under the sub-theme of “Interface and Interaction”. Some of these views are presented below:

“A flexible, integrated and customizable software that will provide user satisfaction in line with the needs of the institution” (B3, 1)

“I can suggest that he should improve on reports - who watched the lectures, how many times he watched them, who downloaded them -” (D3, 1)

“My most important expectation from LMS may be that it allows for increased interaction.” (H3, 1)

Three of the participants drew attention to the forms and administration of the exams and created the sub-theme “Exam administration”:

“Making exams classic, assigning students in groups, requesting handwritten solutions to be uploaded to the system.” (G3, 2)

“I did not have a problem with any of the functions I mentioned in the learning management system platform. However, I believe that the exam function should definitely be improved. I recommend using another software as the exam platform.” (I3, 2)

Three participants mentioned the necessity of monitoring and reporting features of the learning management system:

“To increase the participation of students in the connections established within the learning management system for the meeting of the teacher and the learner, participation can be graded in the courses that include applications, and a certain percentage of students may be asked to attend the lesson according to the pandemic conditions” (C3, 3)

“I think it would be good for students to provide the attendance list – who enters and leaves the class in which minute, how long they are in the class, and how long they are active.” (D3, 3)

Examined the sub-themes and opinions under this theme, it was seen that solutions were presented mostly focused on the problems expressed in the two themes above. When the sub-themes are considered as a whole, we see that there are titles such as synchronous-asynchronous coming together and conducting education-teaching, which take place specifically in distance education. In the process of conducting education and training through LMS, it is possible to say that the participants need important data such as the duration of participation and being active in the course in the online environment in order to successfully provide classroom management.

3. Discussion and Conclusion

In this study, it has been tried to reveal the problems experienced by academicians regarding learning management systems, the benefits they see, their expectations from the system, and solutions to the problems. In terms of the structure of the questions in the semi-structured interview form, and as expected, contradictory questions such as problems and benefits were answered by referring to each other. In the theme of expectations and solutions, the views expressed in the theme of problems were focused on. A remarkable result of the study is that, according to participant views, the views on the problematic aspects of the learning management system are significantly higher than the views on the benefits of the learning management system, in other words, the negative aspects of the learning management system are significantly higher than the positive aspects. This result leads to the conclusion that academicians are generally not satisfied with the learning management system they currently use. This finding, which can be expressed in general terms regarding LMSs, also coincides with the findings of the study conducted by Embi et al. (2011). In the aforementioned study, Embi et al. (2011) gathered his findings under the titles of curriculum applied in the trainings given through LMS, lack of IT knowledge, workload of academicians, suspicious approach to e-learning, LMS usability problems.

According to the findings of the study and in terms of usability, a learning management system should be free from several problems from the perspective of academics. The most

important of these problems is that the virtual environment hosted by the learning management system offers the highest level of adaptation while simulating the education environment. To achieve this, the learning management system must have an effective and user-experience-based interface. According to academics, another important problem is the evaluation system. The evaluation system in education and training systems is a sub-system that shows how well the learning outcomes are met by the student. The problem-free assessment system, which is such an important component of the education and training process, will be the determining factor for the learning management system to do its job. This result is also addressed in this aspect in the study conducted by Khan et al. (2022), and in the suggestions section of the study, they stated that effective distance learning and the effect of this learning platform can be achieved by effective measurement of student performances. In addition, according to the results of the study conducted by Petrakova et al. (2022), an effective measurement and evaluation system in online learning environments increases the motivation of students and teachers in the learning environment. It is possible to say that all these results are compatible with the results of this study.

The inability to effectively control exam security and the limitations experienced while preparing exam questions seriously disrupt the evaluation process and make it problematic. Emelyanova and Voronina (2014), who researched learning management systems used in universities in Russia, revealed that learning management systems can mislead the instructors in the evaluation process, and a wrong picture can be obtained about the situation of students. Another important problem experienced is that the course contents are not permanent for a long time, and the instructors need to make an extra effort to make this content permanent. This is not only extra effort, but also means oblivion and unnecessary human intervention in a learning automation system such as a learning management system. With the study carried out by Chung et al. (2013), making announcements about course contents is an important feature that learning management systems should have.

In terms of the opinions expressed by the participants under the theme of benefits, the learning management system has a user-friendly interface. Users can use the system interface efficiently in situations such as loading course materials and managing the session during the course. Of course, in this efficiency, it can be said that the interface of the system contains features belonging to the field of human-computer interaction such as usability, learnability, and memorability. According to da Costa et al. (2020), interaction plays an important role in the effectiveness of learning management systems as it is directly related to students' learning methods and styles. Learning management systems carry real-life classroom environments to virtual environments. For this reason, trying to capture the interaction that exists in physical classroom environments is the main goal of learning management systems. For this purpose, academicians believe that the learning management systems they use to increase the interaction in their distance courses. The study by Kumar et al. (2011) also confirms this result. According to the study, learning management systems provide both synchronous and asynchronous discussion environments and are therefore very successful in increasing interaction. Another benefit, according to the participants, is the contribution of learning management systems to a faster assessment system. Especially in multiple-choice and short-answer exams, the fact that the evaluation and grading process does not take time even in very crowded classes is seen as an important benefit for academics.

As mentioned above, it is seen that the views on the theme of expectations and solutions mostly and naturally correspond to the views that fall under the theme of problems and are gathered around these views. Under the interface and interaction sub-theme, it is clear that the participants want the learning management system used to be personalized. It can be said that the necessity of shaping the interface according to the needs of the user to ensure satisfaction under the usability dimensions prepared the ground for this result. This result is also similar to the results of the study conducted by Almarashdeh (2016). In the study, it was revealed that the learning management systems should be designed according to the needs of the instructor and students.

Under the theme of problems, opinions on exam administration were found. In the theme of expectations and solutions, solutions to these problems were suggested by the academicians. The expectation from the evaluation system is to ensure security in the exams held in the physical environment and to provide the possibility of the variety of questions offered in the same exams in the virtual environment. Another important expectation from the learning management system is to integrate not only the grading and evaluation system but also a monitoring and reporting element into the system, where students' interest in the course can be seen. In this way, the instructor will be able to follow the performances of the students and include this performance in the evaluation process. In addition, the fact that these features are shown under the e-Leadership features of Akram and Muhammad Khan (2020) study titled "Exploring E-Leadership of Principals: Increasing School Effectiveness by Learning Management System" reveals the importance of learning and monitoring students for distance education management systems. In his study, Fritz (2011) emphasized that interaction in the assessment process allows both the student and the instructor to control and monitor academic activities and that students' participation in the course affects their learning experiences rather than a simple grading process. This situation will inevitably appear as a source of motivation that positively affects learning processes.

Among the limitations of the research, only one learning management system was be examined. At this point, it would be appropriate to examine different learning management systems used in different institutions for further research. In addition, although the participants of the research are academicians, a new study should also be done in terms of the views of students' on learning management systems. In addition, this study contains very general findings. The study should be detailed for specific areas of education such as teaching methods and techniques, evaluation, and feedback.

The following points should be considered within the scope of recommendations for practitioners:

- A highly usable learning management system interface
- An evaluation system that puts more emphasis on security and privacy
- An educational technology that will provide a more detailed transmission of course contents
- Interactive lectures
- A learning management system with the ability to monitor students' work
- High integration with other applications
- Providing faster and easier sharing of data such as lecture notes

References

- Akram, M., & Muhammad Khan, A. (2020). Exploring e-leadership of principals: Increasing school effectiveness by learning management system. *Journal of Education & Social Sciences*, 8(1), 15-30.
- Almarashdeh, I. (2016). Sharing instructors experience of learning management system: A technology perspective of user satisfaction in a distance learning course. *Computers in Human Behavior*, 63, 249-255.
- Altıparmak, M., Kurt, İ. D., & Kapıdere, M. (2011). E-öğrenme ve uzaktan eğitimde açık kaynak kodlu öğrenme yönetim sistemleri [Open source learning management systems in e-learning and distance education]. XI. *Akademik Bilişim Kongresi*, 4(5).

- Chung, C.-H., Pasquini, L. A., & Koh, C. E. (2013). Web-based learning management system considerations for higher education. *Learning and Performance Quarterly*, 1(4), 24-37.
- Coldeway, D.O. (1986). Learner characteristics and success. In I. Mugridge, D. Kaufman (Eds.), *Distance Education in Canada*, (pp. 81-87). London: Croom Helm.
- Çavuşoğlu, Ö. H. (2013). *Mimarlık Eğitim Programında Uzaktan Eğitim Yönetimi* [Unpublished master's thesis]. Anadolu Üniversitesi, Fen Bilimleri Enstitüsü, Eskişehir.
- da Costa, R. D., de Souza, G. F., de Castro, T. B., de Medeiros Valentim, R. A., & de Pinho Dias, A. (2020). Identification of learning styles in distance education through the interaction of the student with a learning management system. *IEEE Revista Iberoamericana de Tecnologias del Aprendizaje*, 15(3), 148-160.
- Embi, M. A. (2011). *E-learning in Malaysian higher education institutions: Status, trends, & challenges*. Putrajaya, Malaysia. Department of Higher Education Ministry of Higher Education.
- Emelyanova, N., & Voronina, E. (2014). Introducing a learning management system at a Russian university: Students' and teachers' perceptions. *International Review of Research in Open and Distributed Learning*, 15(1), 272-289.
- Epping, R. (2010). Innovative use of Blackboard (R) to assess laboratory skills. *Journal of Learning Design*, 3(3), 32-36.
- Falvo, D. A., & Johnson, B. F. (2007). The use of learning management systems in the United States. *TechTrends*, 51(2), 40.
- Fritz, J. (2011). Classroom walls that talk: Using online course activity data of successful students to raise self-awareness of underperforming peers. *The Internet and Higher Education*, 14(2), 89-97.
- Gülbahar, Y. (2009). *E-öğrenme [E-learning]*. Pegem Akademi.
- Han, I., & Shin, W. S. (2016). The use of a mobile learning management system and academic achievement of online students. *Computers & Education*, 102, 79-89.
- İşman, A. (2008). *Uzaktan eğitim [Distance education]*. Pegem Akademi.
- Khan, B. S., Makhdom, F. N., & Jabeen, S. (2022). Study to Assess Students' Readiness for Online Learning at Higher Education Level. *Pakistan Journal of Social Sciences*, 42(2), 417-429.
- Kılınç, H. (2017). Anadolu Üniversitesi Açıköğretim Fakültesi öğrenenlerinin Anadolium eKampüs öğrenme yönetim sistemine ilişkin görüşlerinin kuşaklar bağlamında incelenmesi [Examining the views of Anadolu University Open Education Faculty learners on Anadolium eCampus learning management system in the context of generations]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 3(3), 104-124.
- Kumar, S., Gankotiya, A. K., & Dutta, K. (2011). A comparative study of moodle with other e-learning systems. *2011 3rd International Conference on Electronics Computer Technology*.
- Eden M. Laquindanum. (2022). Effectiveness of Microsoft Teams: A Study of Perception among Tertiary Learners. *International Journal of Recent Research in Social Sciences and Humanities*, 9(2), 85-95. <https://doi.org/10.5281/zenodo.6477320>
- Llamas-Nistal, M., Caeiro-Rodríguez, M., & Castro, M. (2010). Use of e-learning functionalities and standards: the Spanish case. *IEEE Transactions on Education*, 54(4), 540-549.

- Lonn, S., Teasley, S. D., & Krumm, A. E. (2011). Who needs to do what where?: Using learning management systems on residential vs. commuter campuses. *Computers & Education*, 56(3), 642-649.
- Naveh, G., Tubin, D., & Pliskin, N. (2010). Student LMS use and satisfaction in academic institutions: The organizational perspective. *The Internet and Higher Education*, 13(3), 127-133.
- Nurakun Kyzy, Z., Ismailova, R., & DüNDAR, H. (2018). Learning management system implementation: A case study in the Kyrgyz Republic. *Interactive Learning Environments*, 26(8), 1010-1022.
- Özonur, M., KAMIŞLI, H., Yelken, T. Y., & Tokmak, H. S. (2019). Uzaktan eğitim öğrencilerinin Enocta öğrenme yönetim sistemi hakkında görüşlerinin incelenmesi [Investigation of distance education students' opinions about Enocta learning management system]. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, (50), 283-302.
- Patton, M. Q. (1987). *How to use qualitative methods in evaluation*. Sage.
- Petrakova, E. A., Divina, T. V., & Beliakova, M. U. (2022). A system for evaluating student learning outcomes with a differentiated approach using the LMS moodle electronic educational platform. *AIP Conference Proceedings*.
- Saygılı, H., & Çetin, H. (2021). The Effects of Learning Management Systems (LMS) on Mathematics Achievement: A Meta-Analysis Study. *Necatibey Eğitim Fakültesi Elektronik Fen Ve Matematik Eğitimi Dergisi*, 15(2), 341-362. <https://doi.org/10.17522/balikesirnef.1026534>
- Seaman, J. E., Allen, I. E., & Seaman, J. (2018). *Grade increase: Tracking distance education in the United States*. Babson Survey Research Group.
- Sezer, C., & Korucu, A. T. (2019). Bilişim teknolojileri ve yazılım dersinde öğrenme yönetim sistemi kullanımının öğrenci akademik başarısına etkisi [The effect of learning management system usage on student academic achievement in information technologies and software course]. *Gazi Eğitim Bilimleri Dergisi*, 5, 157-176.
- Stake, R. E. (1995). *The art of case study research*. Sage.
- Szabo, M. (2002). Cmi theory and practice: Historical roots of learning management systems. In *E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 929-936). Association for the Advancement of Computing in Education (AACE).
- Tagoe, M. A., & Cole, Y. (2020). Using the Sakai Learning Management System to change the way Distance Education nursing students learn: are we getting it right? *Open Learning: The Journal of Open, Distance and e-Learning*, 35(3), 201-221.
- Yapici, I. U., & Akbayin, H. (2012). The Effect of Blended Learning Model on High School Students' Biology Achievement and on Their Attitudes towards the Internet. *Turkish Online Journal of Educational Technology-TOJET*, 11(2), 228-237.
- Yin, R. K. (2011). *Applications of case study research*. Sage.

Appendix

Interview Form

“Learning management systems are software that enables the management of learning activities. They provide functions such as presenting learning material, sharing and discussing the presented learning material, managing courses, taking assignments, taking exams, providing feedback on these assignments and exams, organizing learning materials, keeping student, teacher and system records, and receiving reports.” (Paulsen Flate Morten, Online Education Systems: Discussion and Definition of Terms, July 2002)

1. Which software do you use as a Learning Management System (LMS)?
2. What are your expectations from a LMS in addition to those listed in the definition above?
3. Which of the functions mentioned in the definition above can you say that your LMS fulfills?
4. What are the advantages of your LMS?
5. What are the disadvantages of your LMS?
6. What kind of problems have you experienced/are you experiencing with the functions that your LMS performs?
7. What solutions can you offer to these problems?
8. In general, what would you compare your LMS to? Why?

ETİK ve BİLİMSEL İLKELER SORUMLULUK BEYANI

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