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The Investigating and Identifying Barriers to E-Learning for Students of Payame Noor University of Tabriz with Providing a Model

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Abstract

The present article aimed at recognizing the barriers of E-leaning in front of Tabriz Payame Noor university students and providing a model. The statistical society was Tabriz Payame Noor university students during 2018-2019; among them, 384 students were selected in the random classified way through the Cochran formula. The researcher`s self-made questionnaire was used as the instrument of the study with content validity and 0.84 reliability was gained through Cronbach's alpha technique. The data were analyzed through SPSS software; through exploratory factor analysis six indexes of 1. Lack of skills and continuous communication, 2. Lack of motivation, 3. Inaccessibility to the technology, 4. The inability of learning through media, 5. Lack of online group conversation, and 6. Lack of aligned issues with success in E-Learning as the barriers of E-learning for students. The model of E-learning barriers was designed too. The obtained results of the Friedman ranking test revealed that due to the lack of skills and continuous communications between students and professors of the university; this factor was the most important barrier in the process of university students' E-learning.

Keywords

E-Learning, Learning Barriers, Motivation, Skills and Continues Communication.

Introduction

Today, regarding the fast changes and existing and developing technologies, especially in the communicative technologies, type of attitude, thought and personal attitude and at the end people lifestyle have changed and then spiritual components of culture also are overshadowed [1]. Today, new communicative- informative technologies have given such speediness and deepness to the social changes that have covered this standing human era i.e. culture, and have put us in the center of a serious cultural change. The change which Barlow has called the most serious cultural change from the Fire Age [2].

Teaching and learning are two of the important components of culture. Teaching always is the key factor in the front of new changes. The inefficiency of classic teaching methods is accepted by all [3]. Today, by developing information and communication technology and using them in teaching, E-Learning has been instilled classic learning. E-learning has been defined as a new approach in providing equipped learning environment; an interactive learner-based approach for everyone and every time which uses different sources and technologies and is parallel with the learning environment for the making free, flexible, and contributed system in learning[4]. And Significant changes due to information technology have been the source of fundamental changes in the classroom (Richardson,2003; mentioned in [5]. In fact, with the introduction of assistive technologies, especially information and communication technology in the education system, significant changes are observed in developed and developing countries. The advent of the Internet as an international information and communication

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network is one of the important reasons for these developments that have profoundly affected the learning and teaching process [6]. And learning tools and methods also have been changed. This change is on the way that everyone always can consider learning with certain possibilities. Now, the classic teaching and learning system experience fundamental changes, so that in 20 years, the development of relative technologies of Web has caused the Web- the relative system was considered in the higher education in the world [7].

Universal declaration in higher education focuses on this point which higher education institutes should be a pioneer of using informative- communicative new technologies' capability and also the protector of high quality and standards in learning approaches. They should make new learning environments from remote learning possibilities to whole virtual institutes and systems in higher education. They should be enabled to bridge between remote learning systems and high-quality developing systems which be in the service of developing, democracy, and other social priorities processes. According to the naming of two decades of the 20th century as Age of Awareness- the purpose of this naming is multidirectional development of humans' awareness and knowledge. In such a setting, classic and old teaching and learning methods have lost their efficiency. Regarding E- learning's high capability, high demand for teaching, and disability of the current teaching system in the responding have made E-learning emergent than old times [8].

Learners in this new process feel that they need to acquire the skills needed to apply new technologies and strive to acquire them. In this way, the learner is responsible for his learning, and during the training, he receives appropriate attitudes and during the training, an individual becomes active. In new educational methods, we try to make the most of innovations in the production of superior media to make the learning process better and simpler. The use of technology as an educational innovation helps to enrich the learning environment, actively engage students, facilitate metacognitive approaches, interactive and participatory learning, and enrich learning resources, and addresses the disadvantages of traditional teaching methods such as lecturing [9]. Technology enables students to access information outside the classroom, which increases their motivation to learn. Daily application of new technologies in learning teaching systems leads to increased academic motivation and promotion of self-confidence among students (Richardson, 2003; mentioned in [5]). But even though E-learning has been successful in achieving goals with no time and space constraints; But it faces obstacles in achieving quality learning. The limitations of E-learning, like any other subject matter, are clear. Identifying E-learning barriers to create more focus, make the necessary predictions, prepare and invest appropriately, prepare a strategic plan in the learning system, is a necessary step and is essential for its success[10]. Some barriers in [11] research include lack of human interaction, emotional and face-to-face communication in the classroom, lack of proper understanding of the E-learning environment, delay in feedback, delay in asynchronous learning, and lack of motivation to read content Successful online electronics were identified. The results of research by [12] also showed that the lack of fit between method and content, lack of skill access, attitude, culture, incentive credit, infrastructure, and barriers related to integrating E-learning with traditional education are among the barriers to employment. And the development of E-learning [13]. The presence of information and communication technologies without a suitable bed for Iranian users, especially adolescents and young people, and even university professors have been used that this cultural heterogeneity has caused problems and obstacles in the proper use of users. As a result, despite the importance and positive consequences that information and communication technology has provided for students in learning university courses; However, there are obstacles and problems for students in developing countries such as Iran in how to use these technologies in learning, which should be considered and identified to solve the problem with the aim of students using new

methods of learning with The use of technological and electronic devices shows the importance and necessity of the present research. For the optimal and balanced development of E-learning at the university level, the development of the application of E-learning, first of all, requires the creation of a culture for the faculty members as well as for the university administrators. Also, requiring the establishment of E-learning units in each university and clarifying the organizational position, as well as communicating the description of its specific tasks, will consolidate and develop the function of E-learning units in universities. Creating incentive regulations and educational requirements to provide some learning content and educational interactions through cyberspace and university E-learning systems can greatly reduce the resistance to the use of E-learning and increase the desire [14] As a result, to achieve the development of E-learning of university students, especially Payame Noor students - which is the main goal of these universities; Distance learning and mainly use; is one of the information and communication technologies - the question that comes to the researcher's mind is what are the main obstacles to E-learning for Payame Noor University students in Tabriz?

Theoretical Background

The term E-learning was first coined by Cross and refers to the types of training that use the Internet and intranet technology for learning. [16] see E-learning as a way to facilitate the learning and transfer of knowledge and information to learners, as well as a way to communicate between teacher and learner for educational organizations, teachers, and learners. E-learning into six categories

E-learning with a physical presence and without face-to-face electronic communication; to the face E-learning without the presence and electronic communication of self-learning type E-learning without the presence and with the electronic communication of the asynchronous type E-learning with virtual presence and simultaneous electronic communication Asynchronous E-learning with occasional presence and with combined / dual electronic communication, of asynchronous type E-learning is classified as simultaneous with presence and with combined / dual electronic communication. The purpose of e-learning; It is not the replacement of E-learning with traditional learning, but specialized training with modern methods and the use of information and communication technology [17]. Indeed; The purpose of E-learning is to provide equal, free and searchable access to courses and to create a uniform educational environment for different groups in each place, and to optimize the methods of presenting course materials for deeper and better learning. In such an educational environment, unlike traditional education, people benefit from the subjects as much as they can [18]. One of the main goals of using E-learning is to reduce the budget, increase access to information and improve the quality of learning resources [19]. [20] identifies five goals for e-learning: overcoming constraints: geographical, cultural, economic, individual, and common educational systems [21]. Benefits and features of e-learning, cost reduction, the flexibility of learning time and place, electronic access to multimedia and multimedia resources, strong and interactive multimedia learning content, inclusive focus on learning with more active participation In the learning process, easier data management, and ease of updating information, the ability to link and integrate content with other learning resources, integrated assessment for testing and the possibility of using a variety of measurement methods to measure the overall progress and success in learning As a successful method of teaching and learning in the 21st century [12]. [22] in the book New and Traditional Methods in Education; the benefits of E-learning include the following: 1- Strengthening and improving the text of the lesson using examples, animation, and other multimedia features. 2-Ability to simulate the real environment using simulators. 3- Providing various research facilities - 4 Strength and

coherence of the presented materials due to the possibility of repeated content review. 5- Standardizing content by integrating data and knowledge in one Definite format. a 6- No need for different technology to access due to the use of the web platform. 7- Encouraging students to self-study, study, and research. 8- Supporting long-term learning and increasing the depth of understanding of the contents of the lesson, by providing. 8-Review and re-read the lesson by the student. 9- Providing the possibility and management of courses and students in a simple way. 10- Easy access of learners to research resources through the Internet. 11- Face-to-face training with the teacher, using video conferencing facilities. 12 -It is learner-centered and the role of teacher and teacher as a guide and facilitator. 13- Participatory learning, is fast, lively and dynamic. E-learning motivates learners. Barriers and challenges of E-learning include 1- Inequality in access to required technologies. 2- Inequality of computer literacy among learners 3- Decreased efficiency due to limited-speed and low-speed Internet access. 4- low Experience in providing lessons through e-learning. 5- Elimination of learners' social connections. 6- Lack of development of E-learning standards is due to the novelty of this method [22]. Researchers have categorized E-learning challenges into five categories: 1. Infrastructural-technical, socio-cultural, educational, legal, financial, and organizational management challenges. List these challenges with the components of each challenge can be seen in the table below [23].

Table 1. E-learning Challenges (ibid)

Technical Infrastructure Challenge	Low access to high speed internet Lack of specialized manpower in universities, Low access to hardware; Software and databases Lack of support Technical
Cultural Social Challenge	Lack of social interaction Resistance to the new educational system Fear of technology; And lack of search and research spirit, lack of a clear definition of the nature of learning Electronic
Educational Challenge	Lack of familiarity with English Low Quality E-learning content Poor. Access to learners and teachers Lack of sufficient cooperation between the country's universities. Poor implementation of training courses Little attention to the evaluation process of training courses virtual. Low level of information literacy
Financial- Legal Challenge	Cost problems. Lack of instructions and rules. being below Teachers' salaries. Poor and inappropriate investment. Apply access restrictions Information by developed countries
Organizational-Managerial Challenge	Unmotivated employees. Lack of sufficient policy for e-learning. Worry About workload. Insufficient support for managers to apply learning Electronic. Cultural weakness in the use of e-learning

The biggest challenge of E-learning in Iran is the attitude towards E-learning. The attitude of some people in society towards E-learning is a passive view and this type of learning is considered insignificant and it is an opportunity. They look at it as an opportunity to pay for tuition to fund the university [24]. According to the structure, content, and methods of providing e-learning, the challenges in this area fall into six categories:

-Lack of a unified national policy regarding the use of information technology in education.

-Lack of proper investment.
-Disagreement about the concept of e-learning.
-Low information literacy.
-Weakness of the support system.
-The existence of a traditional educational system [25].

Literature Review

Considering that E-learning is the most important way for students to learn; Therefore, attention to the challenges and obstacles facing students in such learning has been studied and considered by many researchers. Domestic and foreign researchers in various studies in recent years in their research have divided the barriers and challenges of E-learning into different classes. In this regard; [26] found that in our country, Iran, the E-learning industry has not found the right position and so far the country's managers have not presented a basic plan to launch its native cycle. Therefore, it is necessary to develop ICT skills for the general public, promote educational research, quantitative and qualitative expansion of educational software production, equipping schools and universities with computers and access to the World Wide Web, development of ICT training centers, Strengthening the Internet network infrastructure in the country, expanding the level of public access to computers and the World Wide Web, and developing a culture of using information technology in everyday affairs should be given more attention and use. In the 2017 study by [27], the results showed that Algerian universities face a lack of infrastructure, training, technical skills, and motivation for staff in applying E-learning. [28] Identified barriers to E-learning include: inadequate IT and E-learning infrastructure, financial constraints, and lack of affordable Internet bandwidth. Appropriate cost-effectiveness, lack of E-learning policies and methods, lack of technical skills of training staff in the development of E-learning and e-content Lack of interest and commitment of training staff to use e-learning, amount of time need to develop E-learning content. In this regard; [29] concluded that educational barriers and challenges, technological challenges, communication challenges, challenges related to university and college, challenges related to professors, challenges related to students, challenges related to the comprehensive education system E-learning and finally the challenges related to the E-learning classroom environment have a significant impact on the quality of educational services. The results of [30] research in 2019 indicate that the existing barriers to e-learning, including motivational, executive, credit and financial barriers, infrastructure, Technical, and humanities have had a negative impact on the development of E-learning at Payame Noor University in Zanjan. The results of a study conducted by Jokiahoo, [31] showed that barriers to E-learning include the unavailability of E-learning tools, the need for technical and educational support by organizations, insufficient time to learn and use E-learning tools. In educational practice, instructors have low self-efficacy in the knowledge and skills of technical education as well as incorrect knowledge of the number of efforts of instructors. But the lack of sufficient knowledge, skills, and motivation in students is another obstacle that has been more important than the other mentioned issues. The results of a study conducted by [32]; Activation factors and existing barriers included indicators of learning facilitation, learning by practice, systematic approach to learning, integration of E-learning with the curriculum, poor motivation, and expectations, compact resources that were not suitable for all disciplines and subjects. And lack of communication technology skills. [33] The most important obstacles to the development of E-learning in the higher education system is the low speed of electronic and online communications in universities, the failure and wear of electronic university systems in terms of usability, low level of English language proficiency, Recognized the lack of support from higher education administrators to institutionalize E-learning and the inadequacy of the

university's hardware and software infrastructure. Also, a study by [34] showed that from the point of view of students and professors, severe fluctuations and low internet speed, severe filtering, and excessive internet disconnection and connection, low real bandwidth, limited download of scientific materials, lack of University membership in databases and science, high cost of using the Internet at home, lack of proper telecommunications infrastructure, lack of familiarity and sufficient knowledge in all areas of the Internet, obsolescence, and inefficiency of computer systems and equipment and lack of sufficient security In the Internet lines, all of them are among the obstacles to the development of E-learning in Bu Ali Sina faculty. Also, the results of cultural, [35] indicated that most learning problems are related to communication and management of educational interactions and cooperation and collaboration, which indicates the establishment of student-student interaction and student-student. On the other hand, [23] have named seven main challenges as existing obstacles in the way of E-learning, which are: lack of instructions and weakness in preparing rules and regulations, lack of clear algorithms and methods, weakness in network communication, Lack of proper information about E-learning capacities, insufficient content, improper implementation of E-learning and lack of motivation of employees. The results of the study by [36] showed that beliefs related to the teaching-learning process, belief in professional support, technological self-efficacy beliefs, family opposition, evaluation, and self-efficacy educational beliefs. The title of internal barriers; Decreased visibility, lack of money, lack of education, infrastructure, content, and time have been identified as effective external barriers to the integration of technology in the E-learning process. In this regard, [37] include barriers to E-learning Internal, including lack of English language proficiency, lack of incentives to use e-learning, lack of a clear pattern and plan, concerns about the quality of e-learning, fear of technology, and in the area of external barriers to such things as

Poor access to the Internet and network, lack of proper training in e-learning, lack of technical support, insufficient access to hardware and software, lack of policies and organizational policies for e-learning, lack of support for E-learning training design, concerns about workload, lack of time to expand e-learning, concerns about the lack of access to learners and instructors. The results of the [38] research show that inadequate bandwidth and the lack of computer labs on campus are among the factors that make it difficult for professors who do not have a laptop or the Internet to teach e-learning. Also, designing and teaching online courses, because it is not in person and face-to-face with students, reduces the motivation of professors and consequently makes them less likely to attend online courses. Budget allocation in this area by some teachers is not enough, which leads to a decrease in their online interaction with students. [39] showed that the most important challenges facing E-learning are related to communication issues and then technology. As a result, continuous and effective communication has been necessary to eliminate these problems and promote e-learning. A study by [40] showed that the four major barriers to E-learning are related to technological, personal, educational, and activation factors, respectively. [24] found: Lack of supervision over the courses and content provided, lack of response to students, irregularity, and lack of coordination in holding classes and extra classes, lack of orientation and skill courses for professors and students, policies, Teaching method, lack of access to the teacher, not taking the course and students seriously, justification and skill, documentarism, lack of mastery of the system, Internet problems, learning management system, graphic design and user interface, and finally the shortcomings and weaknesses of the class is electronic. As a result, according to the results of domestic and foreign research on barriers and challenges of E-learning in students of different universities; And after studying the theories and theories related to the subject; In the present study, various indicators of E-learning barriers derived from these theories and backgrounds were identified.

Research Method

The present research is applied in terms of purpose and analytical in terms of nature and method of data collection. The statistical population includes 8500 professors and students in undergraduate and graduate courses of Payame Noor Center in Tabriz in the academic year of 2018-19, of whom 384 were selected using Cochran's formula and stratified random sampling method. The researcher-made measurement tool was designed based on the standard E-learning questionnaire of [41]. This questionnaire contains 36 items. The 5-point Likert scale was used to identify barriers to e-learning. It is noteworthy that according to research on learning barriers; As a result, scoring was done in reverse: very low = 5, low = 4, medium = 3, high = 2 and very high = 1, and higher scores indicated stronger barriers. The validity of the questionnaire questions was done through the method of determining the content validity and with the guidance and opinions of experienced professors. Then the reliability of the questionnaire was calculated using Cronbach's alpha coefficient. First, the questionnaires were randomly distributed among 30 people in the statistical sample, then the collected information was tested and Cronbach's alpha values above 0.7 were obtained. As a result, the questionnaire has acceptable validity and reliability. To analyze the data from the survey method and with

The SPSS statistical software version 24 was used. Exploratory factor analysis was used to identify barriers to E-learning and then the pattern of identified barriers to learning was drawn. Finally, to rank learning barriers Friedman ranking test was used electronically.

Results

The first question of the research: What are the barriers to E-learning for students of Payame Noor University of Tabriz and what model can be drawn? In order to determine the indicators of barriers to E-learning and provide a model; Exploratory factor analysis was used. By exploratory factor analysis performed correctly the items related to each of the indicators required for E-learning barriers of students with. Attention to the theoretical framework used; Factorization and approval and throwing items 4 - 8 - 9 - 21 - 25 were removed from the work and finally the barriers to E-learning were identified and the desired pattern was designed. Nevertheless; The results of exploratory factor analysis were obtained in order to separate and categorize the 36 items of E-learning barriers indicators in the form of six indicators based on principal component analysis, which is considered according to the information in Table 2. The value of KMO = 0.89 was obtained and because this value is greater than 0.5, it is concluded that the number of samples is very suitable for performing factor analysis. Because the KMO value is between zero and 1, and the closer it is to one, the higher the sample validity. According to the table above, the value of Bartlett's Test of Sphericity is 5838.19 with a significance level of p = 0.000, and because this value is significant; The result is that the separation of factors is done correctly. And the items in each factor have a high Congeneric with each other.

Table 2. Kaiser Meyer and Split Bartlett Test for Identified E-learning Barriers

Kasiser-Meyer-Olkin Measure of Sampling Adequacy	0.89		
Approx. Chi-Square	.19	5838	
Bartlett s Test of Sphericity		DF	630
Sig. 0000	0.		

Based on the information in Table 3, it is observed that the highest specific values are related to the first, second, third, fourth, fifth, and sixth factors, respectively, and with the first factor about 28.41% and with the second factor 6.99% and with The third factor is 6.60% and with the fourth factor 5.89 and with the fifth factor 4.87 and with the sixth factor 4% of the total variance of the factorizations can be explained and in total up to about 56.79% of the total variance of the factorization and The reduction of 36 items was done with six main factors, which is a good criterion. Because in factor analysis, at least 50% of the variance needs to be explained.

Table 3. Identifies the Variances and Factors Associated with E-learning Barriers

Factors	of the factor variance	of the total variance
1	28.4	28.4
2	6.99	35.4
3	6.60	422
4	5.89	47.89
5	4.87	52.76
6	4	56.76

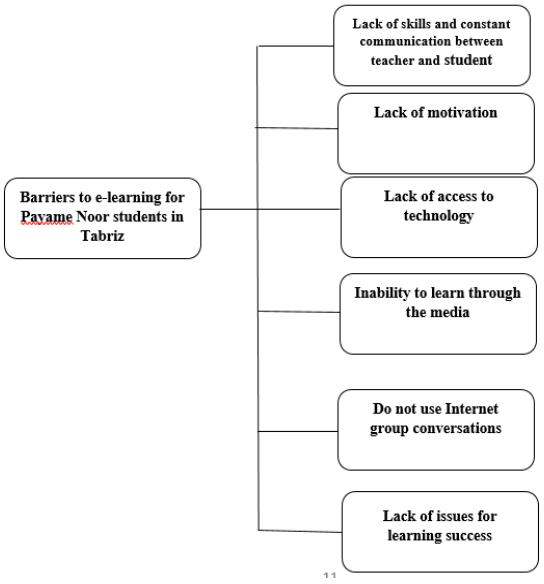
According to the information in Table 4 and based on the factor loads rotated by the Varimax method, 36 items related to the six indicators are identified, which are listed in the table along with their factor load coefficients. It is noteworthy that items 4 - 8 - 9 - 21 - 25 were discarded due to having a value below 0.5 in the identified factors and finally 31 items remained in the six indicators.

Table 4. Separation of Factors Related to Identified E-learning Barriers

Items	F. 1	F. 2	F.3	F.4	F.5	F.6
I have access to a computer connected to the Internet	0.4					
I am equipped with a computer with suitable hardware features	0.4					
I have access to the required software	0.7					
I have technology peripherals	0.4					
I have access to advanced and up-to-date technologies	0.2					
I constantly maintain my motivation when the teacher is not present		0.4				
I am equipped with the ability to get things done even with network disruptions		0.9				
I am equipped the ability to complete tasks even in the presence of disruptive factors in the home		0.1				
I have motivations to achieve scientific goals through E-Learning		0.8				
I do not need anyone to use e-learning		0.6				

It makes me study and try, but I am interested in it						
I have enough motivation to use E-learning		0.1				
I am in regular contact with the instructor in E-learning			0.			
I am quickly supported technically and managerially in E-learning			0.4			
I am constantly equipped with previous experiences related to technology in E-learning			0.7			
I am constantly participating in E-learning in participation courses			0.4			
In e-learning, I exchange information with other members of the group			0.			
I am equipped with basic computer skills				0.7		
I am equipped with basic Internet search and information access skills				0.6		
I am equipped with the ability to send emails with other files				0.2		
I am equipped with the ability to communicate with others through continuous technologies				0.		
I am equipped with the ability to use online tools				0.1		
I am equipped with the ability to ask questions and comment in writing.				0.2		
I am equipped with the ability to communicate with others via the Internet using tools such as messengers					0.8	
I am equipped with the ability to spend more time preparing the answer to a question					0.7	
I am equipped with the ability to have a continuous conversation while typing					0.2	
I am equipped with the ability to chat with several people in Internet groups					0.5	
I have ability to create groups for group dialogue and management					0.1	
I am equipped with the ability to communicate the content of video clips, online information and books						0.5

I have the ability to take notes while watching a computer video						0.
I am equipped with the ability to understand the content of the lesson that is broadcast via video						0.2
The ability to learn through the media has been enriched my knowledge						0.



Model 1: Identified barriers to E-learning of Payame Noor students in Tabriz (taken from the results)

The second research question: Which of the barriers to E-learning has the greatest impact on the
lack of learning of Payame Noor students in Tabriz?
The results of Friedman test performed to rank and prioritize the most impact of E-learning barriers on learning of Payame Noor University of Tabriz students according to Table 5; Respectively, the factor of lack of skills and continuous communication between teacher and student with the value of 5.92 has the most role, the factor of lack of motivation with the value of 3.99 in the second step, the factor of lack of access to technology with the value of 3.80 in the third step Through the media with a value of 2.82 in the fourth step, the factor of not taking advantage of
Internet group conversations with a value of 2.76 in the fifth step and the lack of problems for success in learning with a value of 1.72 in the sixth step has the least role and according to Table 6 (this ranking is valid as a result of not having skills and communication between teacher and student is the most important obstacle in students' learning to use electronic methods of teaching and learning.

Table 5. Ranking of E-learning barriers in student learning

Rank	Rank Average
Lack of skills and constant communication between teacher and student	5.92
Lack of motivation	3.99
Lack of access to technology	3.80
Inability to learn through the media	2.82
Do not use Internet group conversations	2.76
Lack of issues for learning success	1.72

Table 6. Friedman test to rank the effect of E-learning barriers

Number	384
Chi-squared	1175.19
Degrees of freedom	5
p-value	0.000

Discussion and Conclusion

This study aimed to investigate and identify the barriers to E-learning for students of Payame Noor University in the center of Tabriz in the academic year 2018-19. The results of the research obtained from the exploratory factor analysis technique showed; Six barriers include lack of skills and continuous communication between teacher and student, lack of motivation between teachers and students, lack of access to technology, inability to learn through the media, lack of use of Internet group conversations and lack of success issues. Student learning was identified as the main barrier to E-learning by the professors and students under study, and the lack of skills and continuous communication between teacher and student was identified as the strongest barriers. The results of the present study are in line with the results of the research of domestic and foreign researchers mentioned in this article. From the point of view of theorists as well as the results of the research that has been done; One of the most important obstacles among Iranian universities, apart from infrastructural and basic factors such as lack of planning in the structure of universities and lack of familiarity of administrators and students with such new methods; The most important obstacles are the students themselves. Because despite the constant use of information and communication networks by professors and students; Unfortunately, learning methods combined with technology and the Internet are still secondary to teaching by professors and students. Some professors due to old age and some due to lack of familiarity with new teaching methods and students also due to lack of continuous access to the Internet and also the inability to use such methods are generally more interested in traditional learning. But the main obstacle in E-learning is the inability and skill of the teacher with students in establishing online interaction in teaching and learning courses, which along with the lack of sufficient motivation between teachers and students, this obstacle has become more prominent. Some barriers, such as lack of access to technology and advanced systems appropriate to such a learning method, have also had a double effect on the failure of e-learning. Another obstacle to mismanagement in schools, universities, and society; Lack of attention to educating students about how to use Internet equipment and information and communication networks. Also, students do not know each other in Payame Noor universities, which is mostly without attending classes and remotely; In a way, it affects their inability to learn in groups. Also the different goals of the students of Payame Noor universities, which are mainly for obtaining a degree for career advancement in the organizations in which they operate; Another obstacle is trying to learn virtual group. As a result, in addition to infrastructural barriers such as the lack of educational

planning by universities and also the lack of funds required to equip classrooms with information and communication technologies and the lack of expertise of managers and professors in these technologies; Lack of exchange between teacher and student and their lack of motivation to learn with the new educational method are the main obstacles. As a result, it is suggested to remove the existing obstacles; Hold seminars and conferences to inform managers and stakeholders about the importance of E-learning and how to conduct these courses. Also in providing facilities, technical tools, and the following necessary construction and technologies The necessary financial resources should be provided to the administrators of universities and administrators of educational institutions. Also, the necessary support should be provided to provide up-to-date content and the possibility of accessing the contents at any time by administrators and stakeholders. Considering that acquiring skills in using hardware and software in the use of E-learning is essential; Therefore, it is suggested that training workshops be set up to acquire such skills before entering E-learning courses. To increase the motivation of learners, it is recommended that assessments be done continuously so that learners can see their academic progress. Also, use experienced teachers to increase the effectiveness of e-learning. Students are also encouraged to learn how to use new communication and information technologies and by participating in training classes or self-taught training on the Internet, expand their scientific abilities in using educational spaces.

The aim of this study was to investigate and identify the barriers to E-learning for students of Payame Noor University in the center of Tabriz in the academic year 2018-19. The results of the research obtained from the exploratory factor analysis technique showed; Six barriers include lack of skills and continuous communication between teacher and student, lack of motivation between teachers and students, lack of access to technology, inability to learn through the media, lack of use of Internet group conversations and lack of success issues. Student learning was identified as the main barrier to E-learning by the professors and students under study, and the lack of skills and continuous communication between teacher and student was identified as the strongest barriers. The results of the present study are in line with the results of the research of domestic and foreign researchers mentioned in this article. From the point of view of theorists as well as the results of the research that has been done; One of the most important obstacles among Iranian universities, apart from infrastructural and basic factors such as lack of planning in the structure of universities and lack of familiarity of administrators and students with such new methods; The most important obstacles are the students themselves. Because despite the constant use of information and communication networks by professors and students; Unfortunately, learning methods combined with technology and the Internet are still secondary to teaching by professors and students. Some professors due to old age and some due to lack of familiarity with new teaching methods and students also due to lack of continuous access to the Internet and also the inability to use such methods are generally more interested in traditional learning. But the main obstacle in E-learning is the inability and skill of the teacher with students in establishing online interaction in teaching and learning courses, which along with the lack of sufficient motivation between teachers and students, this obstacle has become more prominent. Some barriers, such as lack of access to technology and advanced systems appropriate to such a learning method, have also had a double effect on the failure of e-learning. Another obstacle to mismanagement in schools, universities, and society; Lack of attention to educating students about how to use Internet equipment and information and communication networks. Also, students do not know each other in Payame Noor universities, which is mostly without attending classes and remotely; In a way, it affects their inability to learn in groups. Also the different goals of the students of Payame Noor universities, which are mainly for obtaining a degree for career

advancement in the organizations in which they operate; Another obstacle is trying to learn virtual group. As a result, in addition to infrastructural barriers such as the lack of educational planning by universities and also the lack of funds required to equip classrooms with information and communication technologies and the lack of expertise of managers and professors in these technologies; Lack of exchange between teacher and student and their lack of motivation to learn with the new educational method are the main obstacles. As a result, it is suggested to remove the existing obstacles; Hold seminars and conferences to inform managers and stakeholders about the importance of E-learning and how to conduct these courses. Also in providing facilities, technical tools, and the following necessary construction and technologies The necessary financial resources should be provided to the administrators of universities and administrators of educational institutions. Also, the necessary support should be provided to provide up-to-date content and the possibility of accessing the contents at any time by administrators and stakeholders. Considering that acquiring skills in using hardware and software in the use of E-learning is essential; Therefore, it is suggested that training workshops be set up to acquire such skills before entering E-learning courses. To increase the motivation of learners, it is recommended that assessments be done continuously so that learners can see their academic progress. Also, use experienced teachers to increase the effectiveness of e-learning. Students are also encouraged to learn how to use new communication and information technologies and by participating in training classes or self-taught training on the Internet, expand their scientific abilities in using educational spaces.

References

[1] Hosseini, A. (2014). Analyzing the Behavior of Young People in Virtual Social Networks and Role of Media in Guiding and supporting them, Social sciences, youth studies / media, Issue 13: 87-112.

[2] Mohseni, Manouchehr, (1993), Fundamentals of Sociology of Science, Tehran: Tahoori Publication.

[3] Yazdchi, Safoora (2006), "The new role of teachers in education due to the development of education in Yazd", Information and Communication Technology, Proceedings of the First Conference of the Education Organization.

[4] Eghbal, Mohammad Reza; Ya'ghoobi, Akram al-Sadat; Hosseini Tabaghdehi, Seyyedeh Leila, (2015), Factors affecting the success of e-learning in universities, Quarterly Journal of Information and Communication Technology in Educational Sciences, 6th year, Issue. 1. pp. 71-85.

[5] Afzalniya, Mohammad Reza. (2008), Design and familiarity with learning centers, materials and resources, Tehran: SAMT Publication.

[6] Sa'edi, Narghes & Sa'dipour, Esmail, (2017), "The effect of e-learning on students' communication skills", Quarterly Journal of Information and Communication Technology in Educational Sciences, 7th year, No. 4, pp.111-129.

[7] Ja'farpour, Mahmood. (2012), "A model for accepting e-learning in Iranian universities", Quarterly Journal of Information Technology Management Studies, 1th year, No. 1, pp.91-121.

[8] Bagheri Majd, Rouh al-allah. (2000), Investigating the barriers to the development of e-learning with emphasis on the importance of teaching and learning in the educational

system of Shahid Chamran University of Ahvazv, Master Thesis, Shahid Chamran University.

[9] Hosseinikhah, Ali, (2008), "Investigating the theory of dissemination of innovation in the field of education", Quarterly Journal of Educational Innovations, No. 26, pp. 156-170.

[10] Babayie, Mahmood. (2000), Introduction to E-learning, Iran Institute of Information Science and Technology (Chapar).

[11] Najafi, Hossein, (2017), "Relationship between dimensions and indicators of combined education and quality of learning in Payame Noor University", Quarterly Journal of Information and Communication Technology in Educational Sciences, 7th year, No.4, pp.59-80.

[12] Mousavi, Mina; Mohammadzadeh Nasabadi, Mahnaz; Pezeshki rad, Gholamreza, (2011), "Identification and analysis of barriers and factors hindering the application and development of e-learning in Payame Noor University", Quarterly Journal of Research and Planning in Higher Education, No.59, pp.137-154.

[13] Rezai, Bijan; Naderi, Nader; Tarin, Hamd al-allah & Ja'fari, Habib, (2017), "Mixed research on e-learning opportunities and threats", Journal of Educational Sciences, Shahid Chamran University of Ahvaz, Issue 6, 24th year, No. 2, pp.151-174.

[14] Zare' Bidaki, Majid, (2013), "Challenges of e-learning development in Iranian universities of medical sciences", Journal of the Center for the Study and Development of Medical Education, Issue 10, No. 4, pp 500-503.

[15] Cross, Jay. 2004. Aninformal history of Learning. On the Horizon (12)3: pp. 103-110.

[16] Peter, S. & Deimann, M. (2013). On the Role of Openness in Education: A Historical Reconstruction, Open Praxis, 5: 7-14.

[17] Kiya, Aliasghar, (2009), "A Glance at E-learning", Social Science (Month Book), No.24.

[18] Mahmoodi, Mahdi & Ne'mati, Kobra, (2018), "Review of different e-learning design models", 11th International Conference on Psychology and Social Sciences.

[19] Mahdiyoun, Rouh allah; Ghahramani, Mohammad; Farasatkhah, Maghsood & Abolghasemi, Mahmood, (2010), "Quality of learning in university e-learning centers; A qualitative study", Journal of University Library and Astronomy Research, 45th year, No.58, pp.77-100.

[20] Pawlowsky, T. (2009); Information Technology and Education; Leeds cork.

[21] Zare', Hossein & Saeed, Nasim, (2016), "E-learning and cognitive psychology ... opportunities and challenges", Journal of Research in School and Virtual Learning, 5th year, pp 95-107.

[22] Akbari, Mortaza; Balaris, Ali & Binayie, Hamed. (2016), New and traditional methods in education, University Research.

[23] Tari, Farzaneh, Shams, Gholamreza, Rezaeizadeh, Morteza (2017), "Identification and modeling of the most important challenges of using e-learning with interpretive structural modeling (ISM) approach in the National Iranian Gas Company", Quarterly Journal of Human Resources Training and Development Fourth, No. 14, pp. 27-1.

[24] Ghorbankhani, Mahdi &Salehi, Keyvan, (2016), "Representing the Challenges of Virtual

Education in the Iranian Higher Education System: A Study by phenomenological method", Quarterly Journal of Information and Communication Technology in Educational Sciences, 7th year, No. 2, pp.123-148.

[25] Atashak, Mohammad. (2007), "Theoretical and practical foundations of E-learning", Quarterly Journal of Research and Planning in Higher Education, No. 43.

[26] Ghatooei, Farshad; Moradi, Ali; Kheiri, Reza; Ghiyas Soonaki, Ali, (2018), "E-learning; History, infrastructure, methods, barriers and benefits", The 3rd International Conference on New Research in the Field of Educational Sciences and Psychology and Social Studies in Iran, Soroush Hekmat Mortazavi Islamic Studies and Research Center, 1-8.

[27] Idris, F.E. & Osman, Y. (2017). Implementation of E-learning in the university of Gezira Barriers and opportunities. Educational Science and Research, 1(1).

[28] Tarus, J.K., Gichoya, D. & Muumbo, A. (2015). Challenges of Implementing E-learning in Kenya: A Case of Kenyan Ruhic Universities. International Review of Research in open and distributed learning, 16(1).

[29] Zare'i, Ali & Dehghani, Marziyeh, (2018), "Challenges of e-learning: A study with a phenomenological approach", Quarterly Journal of Information and Communication Technology in Educational Sciences, 9th year, No. 1, pp. 59-81.

[30] Karami, Rouya & Asadi, Zahra, (2019), "Investigating barriers to the development of e-learning from the perspective of students at Payame Noor University", Proceedings of the First National Conference on Combined Education in Iran, 20-21 November, 18.

[31] Jokiaho, A., May, B., Specht, M. & Stoyanov, S. (2018). Barriers to using E-learning in an advanced way. International Journal of Advanced Corporate Learning (IJAC), 11(1): 17-22.

[32] Regmi, K. & Jones, L. (2020). A systematic review of the factors – enablers and barriers-affecting E-learning in health sciences education. BMC Medical Education, 20(91): 1-18.

[33] Mahmoodi, Mahdi & Mostashiri, Seyyedeh Elnaz, (2017), "Analysis of barriers to the development of e-learning in the higher education system; Study: Semnan State University", Higher Education Quarterly, 10th, No. 37, pp. 111-129.

[34] Mirzaie, Khalil; Sa'di, Heshmat-Allah & Sepah panah, Marjan, (2019), "Investigating barriers to the development of e-learning in the Faculty of Agriculture, Bu Ali Sina University" (Comparison of the opinions of faculty members and graduate students of the Faculty of Agriculture, Bu Ali Sina University), Journal of Educational Technology, 3 (13), pp.615-23.

[35] Farhanghi, Aliakbar; Yazdani, Hamidreza; Haghshenas, Maryam, (2018), "Identify functional areas and LMS problems; Case study: University of Tehran E-learning center", Information Technology Management Faculty of Management, University of Tehran, 10 (2), pp.331-354.

[36] Hamutoglu, N.B. & Basarmak, U. (2020). External and Internal Barriers in Technology Integration: A Structural Regression Analysis. Journal of Information Technology Education, 19: 17-40.

[37] AL- Gamdi, A.M, & Samarji, A. (2016). Perceived barriers towards E-learning by faculty

members at a recently established university in Saudi Arabia. International Journal of Information and Education Technology, 6(1): 23-28.

[38] Makhaya, B.K., & Ogange, B.O. (2019). "The Effects of Institutional Support Factors on Lecturer Adoption of eLearning at a Conventional University". Journal of Learning for Development, 6(1): 64-75.

[39] Barbour, M. & Siko, J. (2019). Size Only Matters if You Have Vision: An Exploration of an Urban E-learning Cluster. Journal of Open, Flexible and Distance Learning, 23(2): 5-24.

[40] Ali, S., Uppal, M.A. & Gulliver, S.R. (2018). A conceptual framework highlighting E-learning implementation barriers. Information Technology and People, 31(1): 156-180.

[41] -Watkins R., Leigh D. and Triner D., (2004). Assessing Readiness for E-learning, Performance Improvement Quaterly, Vol.4, 2004: 66-79.