Educational Administration: Theory and Practice
2024, 30(6), 1479-1493
ISSN: 2148-2403
https://kuey.net/

Research Article

The reality of the use of e-learning at the University of Biskra (Algeria) and its most important difficulties In light of the coronavirus pandemic -An exploratory study of the opinions of a sample of faculty members at the College of Economic, Commercial and Management Sciences-

Dr. Meghazi Larafi Radia[1*], Pr. Mohamed Grichi[2]

[1*]Department of Commercial Sciences at the University of Biskra (Algeria), E-mail: radia.meghazi@univ-biskra.dz
[2]Department of Management Sciences at the University of Biskra (Algeria), E-mail: mohamed.grichi@univ-biskra.dz

Citation: Dr. Meghazi Larafi Radia (2024). The reality of the use of e-learning at the University of Biskra (Algeria) and its most important difficulties In light of the coronavirus pandemic -An exploratory study of the opinions of a sample of faculty members at the College of Economic, Commercial and Management Sciences-, *Educational Administration: Theory and Practice*. *30*(6) 1479-1493, Doi: 10.53555/kuey.v30i6.5525

ARTICLEINO

ABSTRACT

This study aimed to identify the reality of the use of e-learning at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra and identify its most important difficulties and this is from the point of view of faculty members, to achieve this we used the questionnaire and it was distributed to a random sample of faculty members in the faculty under study, numbering (101) professors. In statistical analysis of data, several statistical methods are used. The study reached several results, the most important of which are: The college under study does not adequately provide the various human, organizational, material and technical requirements necessary in the educational environment to use e-learning, and the faculty members of the college under study are not well aware or control the various types of e-learning, and They face great difficulties while using e-learning, which are related in particular to the curriculum, university administration, and the experience of faculty members in the field of e-learning.

The study concluded with a number of recommendations, most notably: The college must provide the necessary all human, organizational, material and technical requirements necessary to use e-learning, and faculty members must understand and control well the various types of e-learning with its changing tools, and faculty members must be supported and motivated to use "audio conferences" Video conferencing and the virtual whiteboard "This is as a mechanism for e-learning, in addition to overcoming the various difficulties facing the process of using e-learning in the college under study.

Keywords: e-learning, e-learning requirements, e-learning tools, e-learning difficulties.

Introduction:

Our time is witnessing great technological changes and developments, especially in the field of information and communication technology. The latter contributed to the abundance of information in all disciplines, and the fading of the distance between information and the learner, and this also led to the emergence of the need for modern skills, methods and techniques that have become an integral part of the life of modern societies, which made us urgently need to develop teaching and learning methods and skills to reach the learner to acquire information himself and program it electronically, as the goal of education in our time is no longer the acquisition of knowledge In itself, it has become the acquisition of self-learning skills and the ability to employ information and advanced technologies in solving life's problems.

Countries have recently tended to develop information plans and make the computer and the information revolution in education curricula and teaching based on the integration of technology and education a reality to overcome the problems of traditional education, including the large influx of students in universities, the rapid progress in the fields of knowledge, the impact of information and communication technologies in the field of education, the high costs, the increase in the desire of many people to return to learning again, the inadequacy of the results achieved for the labor market, and the rigidity of the current educational system.
Thus, there have been major transformations in some teaching and learning methods, as the e-learning method is one of the modern methods in the current century, which contributes to increasing the effectiveness and efficiency of learners, and enables the learner to take greater responsibility as he becomes more able to discover, analyze, synthesize and acquire high-level learning skills (Housamo and Al-Abdullah, 2011: 245).
What should be noted is that the success of e-learning depends on the readiness of the university and its readiness to benefit from its services, through the readiness of professors and the extent to which they possess the competencies and skills necessary to use the e-learning system; the higher their level of skills and their readiness is higher, the more this contributes to the success of this type of education (Mahria, 2021: 455).
In this research, we will shed light on the reality of using e-learning at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra and identify its most important difficulties from the point of view of faculty members, as follows.

First of all. General framework and procedures of research

1-1. The problem of research:

Higher education faces many transformations and challenges as a result of social, economic, scientific and technological changes and developments that have occurred at the international level in general and at the Arab level in particular, which makes it need to keep pace with these transformations, respond to them and confront them. Countries have recently tended to develop plans for informatics and to make the computer and the information revolution in education curricula and teaching based on the integration of technology and education a reality and a tangible reality to overcome the problems of traditional education.
Thus, there have been transformations in some teaching and learning methods, and the e-learning method is one of the modern methods in our time, which contributes to increasing the effectiveness of learners, and enables them to take greater responsibility as they learner and become more able to discover, analyze and acquire high-level learning skills. Despite the efforts made by the Algerian Ministry of Higher Education to develop e-learning, educational practices in this system have not developed as required, hence the problem of our research, which can be formulated as follows:

What is the reality of using e-learning at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra in light of the Corona pandemic and what are its most important difficulties from the point of view of faculty members?

The following sub-questions fall within this problem:
1- What is the use of e-learning at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra from the point of view of faculty members?
2- What are the most important difficulties in using e-learning at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra from the point of view of faculty members?

1-2. Research objectives:

Through this research, we seek to evaluate the reality of the use of e-learning at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra from the point of view of faculty members in light of the coronavirus pandemic, by identifying:
1- The requirements that must be met in the educational environment to use e-learning in the college under study.
2- The requirements that must be met by faculty members to use e-learning.
3- The degree of familiarity of the faculty members of the college under study with the various tools of e-learning, both synchronous and asynchronous.
4- Difficulties facing faculty members in the college understudy while using e-learning.

1-3 Research hypotheses:

This research is based on the following hypotheses:
1- The Faculty of Economic, Commercial and Management Sciences at the University of Biskra does not provide the requirements of the educational environment of all kinds (material, technical, human, and) for the use of e-learning.
2- The faculty members of the college under study do not provide the necessary requirements to use e-learning.
3- The faculty members of the college under study are not very good at using e-learning tools of both synchronous and asynchronous types.

4- Faculty members of the college under study do not face difficulties or obstacles while using e-learning.

1-4. Research population and sample

The target community in this research consists of all faculty members of the Faculty of Economic, Commercial and Management Sciences at the University of Biskra, numbering (201) professors, and due to the health conditions during the (Covid 19) period.And the absence of some professors due to sick holidays or referral to the deposit, we took a simple random sample from this community of (140) professors and the questionnaires were distributed to all of them through several field visits, and (101) questionnaires valid for statistical analysis were retrieved.

1-5.The search tool, its truthfulness and consistency

1.5.1.Research Tool:

In order to achieve the objectives of the research and test its hypotheses, and to know the level of use of e-learning by faculty members in the college under study, we have prepared a questionnaire as the main tool for collecting the required data and information, and this is based on: the study of "Al-Shahrani, 2008/2009**",** and the study of "Al-Awawdeh, 2012". The questionnaire consisted of two sections; the first included the personal and functional data of faculty members at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra, namely: "gender, age, scientific rank, and number of years of experience".

The second section was devoted to the axes of the questionnaire and included four axes:

- **Requirements that must be met in the educational environment to use e-learning**: Includes (18) phrases distributed in two dimensions.
- **Requirements that a faculty member must meet to use e-learning**: Includes (23) phrases distributed in two dimensions.
- **E-learning tools:** includes (17) phrases distributed in two dimensions.
- **Difficulties of employing e-learning:** It included (29) phrases distributed over five dimensions.

1.5.2. Authenticity of the research tool:

The truthfulness of the tool means the ability of the questionnaire to measure the variables it is designed to measure. To verify this, we relied on: "the honesty of the arbitrators" in order to measure the sincerity of the content of the tool, where we presented it to a group of experts at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra to find out their opinion about the dimensions and their measurement statements, as we took all their observations and suggestions and made the required adjustments, on the one hand.

On the other hand, we relied on the veracity of the test, where the coefficient of this honesty was calculated by taking the square root of the stability coefficient "Cronbach's alpha", as shown in Table (1), as we find that the total honesty coefficient of the research tool reached (0.964) It is a very high coefficient and is suitable for the objectives of this research, and we also note that the coefficient of truthfulness of the research variables is very large, and thus we can say that all the statements of the research tool are true to what was developed to measure.

1.5.3. Tool stability:

The stability of the search tool means the extent to which the same or similar results are obtained if the search is repeated in similar conditions using the same tool. In this research, the stability of the search tool was measured using the Coefficient Alpha Cronbach's, which determines the level of acceptance of the measurement tool at the level of (0.60) or more, where the results were as follows:

Table (1): Results of the coefficient of stability and honesty

Axis	Number of ferries	Coefficient of stability "Alpha Cronbach"	Honesty coefficient
Requirements for the educational environment	18	0.895	0.946
Requirements for faculty members	23	0.940	0.969
E-Learning Tools	17	0.775	0.880
Difficulties of employing e-learning	29	0.932	0.965
The resolution as a whole	**87**	**0.930**	**0.964**

Source: Prepared by the authors based on the outputs of the SPSS program. V 17

It is clear from this table that the total stability coefficient of the research tool reached (0.930), which is a very high coefficient and suitable for research purposes, and the stability coefficient of the research variables

is also high and suitable for the purposes of this research, and thus we have made sure of the stability of the research tool, which makes us fully confident in its validity and validity to analyze the results.

Secondly. Theoretical framework of research

2-1. The concept of e-learning

The concept of e-learning has many definitions due to the multiplicity of opinions and orientations of many writers and researchers; it was defined (Al-Awawdeh, 2012: 12) as "an educational system to provide educational or teaching programs to learners or trainees at any time and anywhere using interactive information and communication technology such as: Internet, intranet, radio, local or satellite channels for television, magnetic disks, telephone, e-mail, computers, teleconferencing... etc., and this is to provide an interactive multi-source learning and learning environment in a synchronous or asynchronous way remotely without committing to a specific place depending on self-learning and interaction between teacher and learner."

In the opinion of (Houssamo and Abdullah, 2011: 253-254) e-learning is considered "one of the forms of distance learning that depends on the capabilities and tools of the international information network, the Internet and computers in the study of specific educational content through continuous interaction with the teacher, the learner and the content." and defined it (Samrani, 2021: 353) It is "an interactive system based on an integrated electronic environment, and aims to build courses in a way that is easy to connect them through electronic networks, relying on programs and applications that provide an ideal environment for integrating text with image and sound, and providing the possibility of enriching information through links to information sources in different locations, as well as the possibility of guidance, organizing tests, managing and evaluating sources and processes."

Based on the above definitions, researchers believe that e-learning is that type of education that depends on the use of information technology in all its components and various electronic communication networks in providing educational content to learners, and achieves interaction between the teacher and the learner at any time and anywhere, and all this in order to deliver useful information to the learner in a timely manner and with the least possible effort.

2-2. Technologies used in e-learning

The technologies used in e-learning can be classified into three sections (Al-Awawdeh, 2012: 32-33):

1- Production techniques (Create):

They are programs for authoring and integrating the contents of the electronic course, and are classified into:

-Course authoring programs: programs for authoring content and navigation environment, such as authorware programs (Dazzlermax programs).

- Website authoring programs: Create HTML pages and link them with the site, such as Microsoft Frontpage (and Dreamweaver).

- Testing and Assessment Program: It is concerned with creating and conducting an assessment for learners such as (Perception) program, (Test Generator) program and (Hot Potatoes) program.

- Media Editors: Its goal is to create, edit and prepare graphics, animations, audio and video clips, such as , Flash, Photoshop , 3D-Max(, and (Movie Maker).

2- Delivery techniques (Offer): They are programs to deliver learning materials efficiently, effectively and manage these materials on the network, and to control learners' access and monitor their performance, and are classified into:

-Wed Server: Its task is to deliver the electronic course through browsers.

- Learning Management Systems (LMS): Its task is to manage courses and learners, such as (the Web CT system, Blackboard, Moodle and Angel system (ANGEL).

- (Collaboration Tools): Its mission is to facilitate effective communication between learners in different places and is divided into:

* Synchronous communication tools: such as chat programs, interactive whiteboard, application sharing, and audio and video conferencing.
* Asynchronous communication tools: such as e-mail programs and discussion forums.
* Virtual classroom systems: to connect teachers and learners through the network, such as (Mambo system).

3- Access techniques: These are programs that enable learners to view navigating the contents of the electronic course, namely:

- (We Browsers): such as Internet (Explorer and Netscape).
- (Media Players): such as Real Player and (Acrobat Reader).

2-3. Types of e-learning

There are many types of e-learning, including (Jassim and Salman, 2021: 287):

2.3.1. Synchronous E-Learning: It is direct e-learning that needs the need for the presence of learners (students) and the teacher (professor) at the same time, so that the process of direct interaction between them is available, and the use of the Internet to exchange lessons and research topics through conversation or receive lessons through virtual classrooms, and one of the advantages of this type of learning is that the student can get from the lecturer On direct feedback at the same time. One of its disadvantages is that the

student cannot meet the attendance at the same time as the professor to ensure the availability of conditions for the interaction process and to achieve feedback.

2.3.2. Asynchronous E-Learning: It is indirect e-learning, and does not require the presence of the professor and students at the same time of learning; the student can interact with the educational content, and the interaction is through e-mail, such as sending a message to the professor inquiring about Something and then answered by the professor later, and one of its advantages is that the student learns according to the time and place convenient for him, and can re-study the material and refer to it when needed. One of the disadvantages is that the student cannot get immediate feedback from the professor, and it can lead to introversion because it is done in isolation.

2.3.3. Blended Learning: It is education in which means of communication connected together are used to learn a particular subject, and these means may include a combination of direct delivery in the lecture hall, online communication and self-learning. Thus, it is a complementary education to traditional education based on attendance at the place of education, It uses the Internet with the programs and offers it needs, and some e-learning tools are partially employed to support, facilitate and raise the efficiency of traditional in-person education.

2-4. E-learning tools

E-learning tools can be classified into two types: synchronous e-learning tools and asynchronous e-learning tools (Al-Awawdeh, 2012: 35-37) and the following is a list of each:

2.4.1. Synchronous e-learning tools:

It means those tools that allow the user to communicate directly (In Real Time) with other users on the network, and the most important of these tools we find: (Chat, **audio** (conferences), **video** conferencing Video Conferences, (White Board, and (Satellite Programs).

2.4.2. Asynchronous e-learning tools:

It means tools that allow the user to communicate with other users indirectly, that is, they do not require the user and other users to be present on the network together during communication, and the most important of these tools we find: (E-mail), **tissue network** (World Wide Web), **mailing lists** (Lists, Discussion Groups), File Exchange, Interactive Video, CD.

Thirdly. Analytical framework of research: analysis of research axes and testing of its hypotheses

3-1. Analysis of research axes

In this element, we will analyze the research axes in order to answer his questions, where the descriptive statistics measures were used to extract the arithmetic mean and standard deviation (on the Licart scale "1-5") for the answers of the members of the search sample for the questionnaire phrases in various axes, and it was decided that the arithmetic average of the respondents' answers for each phrase and for each dimension is as follows: From (1-2.33) signals at a "low" level of acceptance or availability, and from (2.34-3.67) at the "medium" level, and from (3.68-5) indices at the "high" level.

The following tables show these results as follows:

1- Analysis of the statements of the first axis to answer the following question:
What is the level of availability of the necessary requirements in the educational environment to use e-learning in the college under study?

To answer this question, the results shown in the following table must be studied and analyzed.

Table (3) The general trend of the answers of the members of the research sample for the axis of "the necessary requirements in the educational environment"

number	Necessary requirements in the educational environment and measurement phrases	Arithmetic mean	standard deviation	Relative importance	Availability level
Firstly. Physical and technical requirements		**2.19**	**0.713**	**2**	**low**
1	The college provides classrooms that contain the necessary devices to use e-learning.	1.95	1.033	9	low
2	The college provides training halls that meet the needs of training in using e-learning.	2.15	1.081	6	low

3	The college provides modern and advanced computers.	2.18	1.024	5	low
4	The college provides various computer accessories (printers, scanners, display devices...).	2.38	1.165	2	middle
5	The college has an internal communication network (Intranet).	2.42	1.202	1	middle
6	The college has a high-flow internet network..	2.00	0.894	8	low
7	The college has the necessary service software to operate the devices.	2.33	1.021	3	low
8	The college has the necessary software for the e-learning process.	2.25	1.033	4	low
9	The college has an electronic library rich in electronic books that serve economic, commercial, and management sciences.	2.14	1.087	7	low
secondly. Human and organizational requirements		**2.78**	**0.654**	**1**	**middle**
10	The college has a technical support team (engineers in automated media...).	2.99	1.005	4	middle
11	The college has professors capable of planning e-learning. The college has.	3.03	1.053	2	middle
12	highly qualified educational technology specialists.	2.83	0.917	5	middle
13	The college provides technicians in the field of designing various electronic presentations..	2.48	0.807	7	middle
14	The college provides distinguished trainers in computer applications..	2.44	0.932	8	middle
15	The college provides financial allocations to support e-learning.	2.29	0.864	9	low
16	The college supports and encourages research and studies in the field of e-learning..	2.72	1.050	6	middle
17	The college and university as a whole recognize this type of education.	3.34	1.013	1	middle
18	The college sets rules and regulations for e-learning.	3.00	1.030	3	middle
Requirements of the educational environment in general		**2.49**	**0.608**	/	**middle**

Source: Prepared by the authors based on the outputs of the SPSS program. V 17

Table (3) shows that:

1- "human and organizational requirements" dimension: came in the first place in terms of relative importance with an arithmetic mean of (2.78), which indicates an average acceptance rate. The expressions of this dimension constitute acceptance ranging from low to medium. This result is explained by the fact that the college under study **does not adequately provide** the various human and organizational requirements necessary in the educational environment to use e-learning**, in terms of**: providing engineers and technicians in the field of designing electronic presentations of all kinds, providing distinguished trainers in computer applications, providing financial allocations to support e-learning, supporting and encouraging research and studies in the field of e-learning.

2- "material and technical requirements" dimension: came in second place in terms of relative importance with an arithmetic mean of (2.19) which indicates **a low** acceptance rate. The statements of this dimension also constitute low acceptance, **which explains this result** that the level of the college under

study providing the material and technical requirements necessary in the educational environment to use e-learning was low, in terms of: the low number of classrooms that contain the necessary equipment to use e-learning, the lack of training halls on the use of e-learning, the lack of software necessary for the e-learning process, the weakness of the Internet, and the lack of an electronic library. The faculty serves economic, commercial and management sciences.

Based on the above, it is clear that the level of availability of various requirements necessary in the educational environment to use e-learning at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra was average in general, as the average respondents' answers to the statements of this axis as a group (2.49) with a standard deviation of (0.608).

2- Analysis of the statements of the second axis to answer the following question:
What is the level of availability of the necessary requirements in faculty members to use e-learning in the college under study?

To answer this question, the results shown in the following table must be studied and analyzed.

Table (4) The general trend of respondents' answers to the axis of "necessary requirements in faculty members"

figure	Necessary requirements in faculty and measurement phrases	Arithmetic mean	Standard deviation	Materiality	Availability
First of all. General requirements in computers and networks for the use of e-learning for faculty members		**3.73**	**0.611**	**1**	**High**
1	Fluent in operating and using computers and accessories.	3.77	0.870	8	High
2	Deals well with computer operating systems.	3.69	0.880	9	High
3	Fluent in dealing with Microsoft Office programs.	3.80	0.837	6	High
4	Fluent in dealing with electronic networks.	3.78	0.795	7	High
5	Fluent in dealing with e-mail.	4.05	0.698	1	High
6	Manage electronic files.	3.94	0.719	3	High
7	The Internet is used to search for information.	3.99	0.806	2	High
8	Designs and publishes web pages.	3.09	1.087	12	medium
9	Fluent in dealing with electronic chat programs.	3.64	0.890	10	medium
10	Identify minor computer technical problems.	3.38	1.018	11	medium
11	Appreciates the importance of computers in serving the educational process.	3.85	0.963	4	High
12	Takes into account the ethics of using computers.	3.81	0.891	5	High
Secondly. Requirements for the use of e-learning for faculty members		**3.43**	**0.748**	**2**	**medium**
13	He knows the concept of e-learning well.	3.64	0.934	1	medium
14	Identifies the types of e-learning.	3.40	0.981	8	medium

15	Ensure that the necessary needs are available to use e-learning in teaching its courses.	3.56	0.953	4	medium
16	Determines the objectives of the electronic curriculum in accordance with scientific standards.	3.42	1.013	7	medium
17	Selects the appropriate electronic content to achieve the objectives of the curriculum.	3.60	0.906	3	medium
18	The faculty member diversifies in the multimedia (audio, image, video) used in providing electronic content to the learner.	3.60	0.873	2	medium
19	It takes into account the ease of the mechanism of interaction between the learner and the electronic curriculum.	3.51	0.923	5	medium
20	Communicates with learners electronically well.	3.50	0.955	6	medium
21	The educational level of electronic learners is continuously.	3.08	1.102	11	medium
22	Follows the new in e-learning.	3.22	1.006	10	medium
23	Develops learners' positive attitudes towards e-learning.	3.25	0.984	9	medium
Necessary requirements in faculty members in general		**3.59**	**0.604**	/	**medium**

Source: Prepared by the authors based on the outputs of the SPSS program. V 17

Table **(4)** shows that:

1- "General Requirements in Computer and Networks" dimension: It came in the first place in terms of relative importance with an arithmetic mean of (3.73) which indicates **a high** acceptance rate. The expressions of this dimension constitute acceptance ranging from medium to high, explaining this **result** that the faculty members of the college under study control well in various computers and electronic networks**,** and are good at dealing withe-mail and managing various electronic files, and good control of Microsoft Office programs, and appreciate the importance of computers in serving the educational process.

2- "special requirements for the use of e-learning for a faculty member" dimension: came in second place in terms of relative importance with an arithmetic mean of (3.43), which indicates an **average** acceptance rate. The statements of this dimension also constitute an average acceptance, **explaining this result** that the faculty members of the college under study are not well aware of the various types of e-learning, and do not diversify much in the use of multimedia to provide electronic content to students, and determine relatively averagely the objectives of the electronic curriculum according to scientific standards, and communicate with students electronically on average as well, and this is due to several considerations, and few of them evaluate the educational level of students electronically on an ongoing basis, and follow up on the new in the field of E-learning.

Based on the foregoing, it is clear that the level of availability of the necessary requirements in faculty members to use e-learning at the Faculty of Economic, Commercial and Management Sciences at the University of Biskra was average in general, as the average respondents' answers to the statements of this axis as a group (3.59).

3- Analysis of the statements of the third axis to answer the following question:

What is the degree of familiarity of the faculty members of the college under study with the various e-learning tools, both synchronous and asynchronous?

To answer this question, the results shown in the following table must be studied and analyzed.

Table (5) The general trend of the answers of the members of the search sample for the axis of "e-learning tools"

figure	E-learning tools and measurement phrases	Arithmetic mean	Standard deviation	Materiality	Usage Level
First of all. Simultaneous e-learning tools		**3.03**	**0.624**	**1**	**medium**
1	Using Chat in web-based e-learning between faculty members and students.	3.29	1.003	3	medium
2	Faculty members use audio conferences as an e-learning mechanism to reach students in different places.	3.20	1.086	4	medium
3	(Faculty members use **video** conferences as an effective mechanism for e-learning through which audio video conferences (audio and video) are transmitted).	3.32	1.058	2	medium
4	Faculty members use the virtual white board to provide various explanations and drawings to students..	2.64	1.110	5	medium
5	The college provides satellite programs associated with computer systems, which facilitates the possibility of benefiting from audiovisual channels in the teaching and education processes and makes them more interactive and lively..	2.22	1.171	6	low
6	The faculty members of the college have good control over Google Meet technology as an effective mechanism in e-learning..	3.55	1.063	1	medium
Secondly. Asynchronous e-learning tools		**3.00**	**0.508**	**2**	**medium**
7	Faculty members use **e-mail** in the educational process.	4.01	0.818	1	High
8	The college provides **a** web network (World Wide Web) through which different information is displayed on interconnected pages that include all courses, where users are allowed to access various Internet services.	3.10	1.136	4	medium
9	Discussion groups are relied on in the educational process in the college, because through them they participate in writing on a specific topic or inquiry between students and faculty members without the need to be present at the same time. .	2.66	1.003	7	medium
10	The college uses interactive video technology in the educational process in order to make it more interactive, and this technology includes (video tape technology, video disc technology).).	2.61	1.104	8	medium
11	The college prepares curricula and educational materials, puts them in compact discs (CDs), uploads them to students' devices and refers to them when needed, for example: an educational video film accompanied by audio or to display a number of thousands of pages from a book or reference. Etcetera.	2.24	1.06	11	low
12	Faculty members in each semester use the **course** program (Moodle) in the educational process, in order to provide a set of books and references related to the course.	3.72	0.801	3	High

13	Faculty members in each semester use the Moodle program in the educational process to provide exercises and assignments..	3.75	0.865	2	High
14	Faculty members in each semester use the Moodle program in the educational process to conduct student surveys in each part of the courses..	2.99	1.109	5	medium
15	Faculty members use Moodle to share opinions through dialogue arenas..	2.86	1.030	6	medium
16	The college provides the Webct program and uses it in the educational process, this program enables the faculty member to organize the contents of publications, books, tests and notes, and to form spaces for discussion and dialogue with his students..	2.51	1.163	10	medium
17	Faculty members use the Centera program to inform students of the lecture time before they are held through its e-mail..	2.54	1.269	9	medium
E-learning tools in general		**3.01**	**0.493**	**/**	**medium**

Source: Prepared by the authors based on the outputs of the SPSS program. V 17

Table (5) shows that:
1- "synchronous e-learning tools" dimension: came in the first place in terms of importance with an arithmetic mean of (3.03) which indicates an average acceptance rate. The statements of this dimension also constitute an average acceptance, and this result explains that the degree of faculty members' use of the college under study with various synchronous e-learning tools was average in terms of the use of audio conferences, video conferences., (White Board), and .(Google Meet)
2- "asynchronous e-learning tools" dimension: came in second place in terms of relative importance with an arithmetic mean of (3.00), which indicates an average acceptance rate. We note from the statements of this dimension that it constitutes an acceptance ranging from low to high, this result explains that the degree of familiarity of faculty members with various asynchronous e-learning tools ranged between medium and high, in terms of relying on discussion groups, interactive video technology and Moodle. In the educational process, this is in addition to relying a lot on e-mail.
Based on the foregoing, it is clear that the degree of familiarity of faculty members of the Faculty of Economics with various e-learning tools as a group was average, as the average respondents' answers to the statements of this axis as a whole (3.01) .

4- Analysis of the statements of the fourth axis to answer the following question:
What is the level of availability of difficulties in using e-learning facing faculty members in the college under study?
To answer this question, the results shown in the following table must be studied and analyzed.
Table (6) The general trend of the answers of the members of the search sample for the axis of "difficulties in using e-learning"

figure	Difficulties with using e-learning and measurement phrases	Arithmetic mean	Standard deviation	Materiality	Availability
First of all. Difficulties related to university administration		**3.76**	**0.699**	**4**	**High**
1	Lack of cooperation between colleges in exchanging experiences to develop e-learning.	3.38	1.190	6	High
2	Lack of financial resources to finance e-learning requirements.	3.70	1.035	4	High
3	Not providing incentives to those who master e-learning.	4.00	0.860	2	High
4	Lack of halls available for e-learning operations.	4.04	0.948	1	High

5	Failure to equip halls and laboratories with the necessary modern tools and equipment.	3.89	1.019	3	High
6	High costs of setting up good software for e-learning style.	3.60	1.059	5	medium
Secondly. Difficulties related to experience in the field of e-learning		**3.42**	**0.688**	**5**	**medium**
7	My experience is weak in using computers and the Internet.	2.68	1.157	5	medium
8	The difficulty of renewal and change in the teaching style from traditional to electronic.	2.87	1.238	2	medium
9	Suffering in following up the large numbers of students through e-learning tools	3.75	1.203	4	High
10	Lack of internet service for some at home.	3.83	1.123	3	High
11	Insufficient lecture time to display all lesson content.	3.47	1.188	6	medium
12	E-learning is an additional burden.	3.97	1.100	1	High
Thirdly. Difficulties related to infrastructure and technical support in lecture halls		**4.03**	**0.739**	**2**	**High**
13	Lack of devices in proportion to the number of students.	4.06	1.018	2	High
14	Weak Internet within the university.	3.99	0.922	4	High
15	The problem of power outages while using e-learning technology.	4.05	0.899	3	High
16	Lack of regular maintenance of the Internet.	3.89	0.999	5	High
17	The difficulty of implementing lectures via video conference between professors and students.	4.17	0.837	1	High
Fourthly. Difficulties related to students		**4.18**	**0.726**	**1**	**High**
18	Poor students' awareness of the importance of e-learning.	4.17	0.895	5	High
19	Lack of appropriate training for students on e-learning.	4.23	0.937	2	High
20	Students' weakness in possessing basic computer skills.	4.34	0.816	1	High
21	Weak or unavailability of the Internet for some students at home.	4.19	0.891	3	High
22	Students do not accept the idea of e-learning.	4.17	0.873	4	High
23	Students are busy in sites that have nothing to do with e-learning.	4.01	0.889	6	High
Fifthly. Difficulties related to the study program		**3.97**	**0.799**	**3**	**High**
24	The objectives of the study program do not focus on e-learning with its various tools.	3.71	1.160	6	High

25	The large size of the study program makes the faculty member tend to traditional education.	3.89	1.095	5	High
26	The nature of metrics, especially quantitative (statistics, accounting, microeconomics, mathematics, operations research, etc.)) is not compatible with modern technologies.	4.01	1.015	3	High
27	The difficulty of implementing evaluation activities through e-learning.	3.98	0.980	4	High
28	The difficulty of applying courses as electronic software.	4.08	0.945	2	High
29	Lack of educational activities supporting the employment of e-learning.	4.15	0.817	1	High
Difficulties of using e-learning in general		**3.87**	**0.588**	/	**High**

Source: Prepared by the authors based on the outputs of the SPSS program. V 17

It is clear from Table (6) that dimension:

1- "Difficulties related to students": came in the first place in terms of relative importance with an arithmetic mean of (4.08), which indicates a high acceptance rate. The language of this dimension is also highly accepted. This result explains that there are great difficulties related to students that professors face while using e-learning in the college under study, in terms of the weakness recorded among students in possessing basic computer skills, the lack of appropriate training for students on e-learning, the weakness or lack of Internet availability for many students at home, in addition to the weak awareness of students of the importance of e-learning and their lack of acceptance of it.

2- "Difficulties related to infrastructure and technical support in lecture halls": came in second place in terms of relative importance with an arithmetic mean of (4.03), which indicates a high acceptance rate. The expressions of this dimension also constitute a high acceptance, explaining this result that there are great difficulties related to infrastructure and technical support in the lecture halls of the faculty, which professors face while using e-learning, and this is in terms of; the difficulty of implementing lectures via video conference between professors and students, the small number of devices in proportion to the number of students, and the weakness of the Internet within the university and its lack of maintenance periodically.

3- "Difficulties related to the study program": came in third place in terms of relative importance with an arithmetic mean of (3.97), which indicates a high acceptance rate. The phrases of this dimension are also highly accepted. This result explains that there are great difficulties facing faculty members while using e-learning, and they are especially related to the program or curriculum, and this is in terms of; The nature of the scales, especially quantitative (statistics, accounting, microeconomics, mathematics, operations research,,,) is not compatible with modern technologies, also the large size of the study program makes the faculty member tend to traditional education, and the objectives of the study program are not focused on e-learning with its various tools, in addition to the difficulty of implementing evaluation activities through e-learning.

4- "Difficulties related to university administration": came in fourth place in terms of relative importance with an arithmetic mean of (3.76), which indicates a high acceptance rate. The thing that is also noticeable is that the phrases of this dimension constitute a high acceptance, this result explains that there are great difficulties related to the university administration about the employment of e-learning in the college under study, which is related in particular to the small number of halls available for e-learning operations, the lack of incentives for those who master e-learning, as well as the lack of financial capabilities to finance e-learning requirements, we also find a lack of cooperation between the various colleges in exchanging experiences to develop e-learning as a whole.

5- "Difficulties related to experience in the field of e-learning": came in fifth place in terms of relative importance with an arithmetic mean of (3.42), which indicates an average acceptance rate. While the expressions of this dimension constitute acceptance ranging from medium to high, this result explains that there are moderate difficulties, the ratios of teaching from traditional to electronic, the weak experience of some faculty members in using computers and the Internet, the lack of Internet service for some at home, the struggle to follow up the large numbers of students through e-learning tools, as well as the insufficient lecture time to display all the contents of the lesson.

3-3. Hypothesis testing

To test hypotheses, we used the One Sample T-test.".

3.3.1. Testing the first hypothesis:

"The Faculty of Economic, Commercial and Management Sciences at the University of Biskra does not provide the requirements of the educational environment of all kinds (physical, technical, human) for the use of e-learning."The following table shows the test results.

Table (7) Test Results (T) for the First Hypothesis

Calculated (T) value	Tabular (t)	Arithmetic mean	Approved moral level	Calculated morale level
8.353	1.984	2.49	0.05	0.000

Source: Prepared by the authors based on the outputs of the SPSS program. V 17

It is clear from this table that the calculated (T) (8.353) is greater than the tabular (t) (1.984), with a calculated significance level (0.000) less than the approved significance level (0.05).Thus, we reject the first null hypothesis and accept its alternative, that is, the Faculty of Economic, Commercial and Management Sciences at the University of Biskra provides the requirements of the educational environment of all kinds (material, technical, human) for the use of e-learning, but not sufficiently, and this is at the level of morale (0.05).

3.3.2. Testing the second hypothesis:

"The faculty members of the college under study do not meet the requirements for the use of e-learning."

The following table shows the test results.

Table (8): Test Results (T) for the Second Hypothesis

Calculated (T) value	Tabular (t)	Arithmetic mean	Approved moral level	Calculated morale level
9.821	1.984	3.59	0.05	0.000

Source: Prepared by the authors based on the outputs of the SPSS program. V 17

It is clear from this table that the calculated (T) (9.821) is greater than the tabular (t) (1.984), with a calculated significance level (0.000) less than the approved significance level (0.05), and thus we reject the second null hypothesis and accept its alternative; Faculty members provide the necessary requirements for the use of e-learning in the college under study, but relatively averagely, and this is at the level of morale (0.05).

3.3.3. Testing the third hypothesis:

"The faculty members of the college under study are not very good at using both synchronous and asynchronous e-learning tools."

The following table shows the results of this test.

Table (9) Test Results (T) for the Third Hypothesis

Calculated (T) value	Tabular (t)	Arithmetic mean	Approved moral level	Calculated morale level
0.273	1.984	3.01	0.05	0.786

Source: Prepared by the authors based on the outputs of the SPSS program. V 17

It is clear from this table that the calculated (T) (0.273) is less than the tabular (t) (1.984), with a calculated significance level (0.786) greater than the approved significance level (0.05), and therefore we accept the third null hypothesis and reject its alternative; The faculty members of the college under study are not very good at using e-learning tools of both synchronous and asynchronous types, and this is at the level of morale (0.05).

3.3.4. Testing the fourth hypothesis:

"Faculty members of the college under study do not face difficulties or obstacles while using e-learning."

The following table shows the results of this test.

Table (10) Results of the(T) Test for the Fourth Hypothesis

Calculated (T) value	Tabular (t)	Arithmetic mean	Approved moral level	Calculated morale level
14.866	1.984	3.87	0.05	0.000

Source: Prepared by the authors based on the outputs of the SPSS program. V 17

It is clear from this table that the calculated (T) (14.866) is greater than the tabular (t) (1.984),

with a calculated significance level (0.000) less than the approved significance level (0.05). Thus, we reject the fourth null hypothesis and accept its alternative, that is, faculty members face many difficulties or obstacles while using e-learning in the college under study, and this is at the level of morale (0.05).

Fourthly. Research findings and recommendations

4.1. Results:

In the light of the analysis of the preliminary data of the field study, the following results were reached:

1- The college under study does not adequately provide the various human and organizational requirements necessary for the use of e-learning; the number of engineers and technicians in the field of designing electronic presentations of all kinds is insufficient, and the lack of distinguished trainers in computer applications, as well as the lack of financial support directed to e-learning, and the lack of support and encouragement of research and studies in the field of e-learning.

2- The college under study does not provide much of the material and technical requirements necessary to use e-learning, as we find that there is a decrease in the number of classrooms that contain the necessary devices to use e-learning, the lack of training halls on the use of e-learning, as well as the lack of software necessary for the e-learning process.

3- Faculty members control computers well, are good at dealing with e-mail, managing various electronic files, and good control of Microsoft Office programs, in addition to that, they appreciate the importance of computers in serving the educational process.

4- Faculty members are not well aware of the various types of e-learning, and do not vary much in the use of multimedia to provide electronic content to students, and communicate with students electronically relatively averagely.

5- The degree of faculty members' use of synchronous e-learning tools was average, especially in terms of their use of Google Meet technology, audio conferencing technologies, video conferencing and virtual whiteboard.

6- The degree of familiarity of faculty members with various asynchronous e-learning tools ranged from medium to high, especially in terms of relying on e-mail, discussion groups, interactive video technology, and the Moodle program in the educational process.

7- The existence of great difficulties related to students during the employment of e-learning in the college under study, and this is in terms of; the weakness recorded among students in possessing basic computer skills, the failure to provide the necessary training for students on e-learning, the weakness or lack of availability of the Internet for many students at home, in addition to the weak awareness of students of the importance of e-learning and their lack of acceptance of it.

8- The difficulty of implementing lectures via video conference between professors and students, and the small number of devices commensurate with the number of students, as well as the weakness of the Internet within the college and its lack of maintenance periodically.

9- The faculty members of the college under study face great difficulties during their use of e-learning, which is especially related to the curriculum, and this is in terms of; The nature of some measures, especially quantitative (statistics, accounting, microeconomics, mathematics, operations research) is not compatible with modern technologies, also the large size of the study program makes the faculty member tend to traditional education, in addition to the lack of focus on the objectives of the study program on e-learning with its tools different.

10- The existence of great difficulties related to the college administration about the employment of e-learning, especially in terms of: insufficient halls designated for e-learning operations, failure to equip halls and laboratories with the necessary modern tools and devices, and failure to provide the necessary incentives for those who master e-learning.

11- The existence of difficulties related to the experience of faculty members in the field of e-learning, ranging from medium to high in terms of the difficulty of changing the teaching pattern from traditional to electronic, the weak experience of some faculty members in the use of communication networks and the automated computer in its various components.

4.2. Recommendations

In light of these findings, we recommend the college understudy to:

1- Providing a sufficient number of classrooms necessary to use e-learning.

2- Providing the necessary training halls to meet the various training needs on using e-learning.

3- Providing an internal network (Intranet), and improving the strength of the Internet network flow.

4- Providing the service software necessary for the work of the devices, and providing the necessary software for the e-learning process.

5- Providing an electronic library in the college that is rich in various electronic books that serve economic, commercial and management sciences.

6- Providing a technical support team of engineers and technicians in the computer.

7- Providing professors who have the willingness and ability to plan e-learning in the college.

8- Providing sufficient financial allocations to support e-learning in the college.

9- Supporting and encouraging research and studies in the field of e-learning.

10- Supporting and motivating faculty members to use audio conferences, video conferences, and the virtual white board as an e-learning mechanism.
11- Providing satellite programs associated with computer systems in order to facilitate the possibility of benefiting from audiovisual channels in teaching and education processes and make them more interactive and dynamic.
12- Overcoming the various difficulties facing the process of using e-learning in the college under study, in particular:
*Difficulties related to university administration.
* Difficulties related to the experience of faculty members in the field of e-learning.
* Difficulties related to infrastructure and technical support in the lecture halls.
* Difficulties related to the curriculum or program of study.
* Difficulties related to students.

Bibliography:

1. Jassim, Roaa Ahmed, and Salman, Bushra Ibrahim. (2021).. "The Impact of Digital Education on Student Educational Achievement: A Comparative Analytical Study for Students of the Fourth Stage of the Department of Banking and Financial Sciences at Al-Rashid University College", Journal of Al-Kout University College for Humanities, Iraq, special issue.
2. Houssamo, Suha Ali, and Abdullah, Fawaz Ibrahim.(2011) "The Reality of E-Learning at Tishreen University from the Point of View of Both Faculty Members and Students", Damascus University Journal, Syria, Volume27.
3. Youssef, Bassam Abdel Rahman, and Hussein, Muhammad Mustafa. (2010). "The possibility of harmonizing educational foundations and technical requirements for e-learning: an exploratory study of the opinions of a sample of teachers and students at the University of Mosul" - College of Administration and Economics - Department of Management Information Systems, Journal of Mesopotamian Development, College of Administration and Economics, University of Mosul, Iraq, p.100, vol.32.
4. Mahria, Khalida.(2021). "E-learning at the Algerian University: Need or Necessity Generated by the Corona Crisis", Journal of Al-Kout University College for Humanities, Iraq, special issue.
5. Samrani, Abdul Hakim. (2021). "Obstacles to the Application of E-Learning in the Moroccan School", Journal of Al-Kout University College for Humanities, Iraq, special issue.
6. Al-Awawdeh, Tariq Hussein Farhan. (2012). Difficulties of employing e-learning in Palestinian universities in Gaza as seen by professors and students, unpublished master's thesis in the foundations of education, Al-Azhar University, Gaza, Palestine.
7. Al-Shahrani, Nasser bin Abdullah Nasser. (2009/2008) Demands for the use of e-learning in teaching natural sciences in higher education from the point of view of specialists, PhD thesis in curricula and teaching methods (science) unpublished, College of Education, um Al-Qura University, Saudi Arabia.