
**DIAGNOSTIC STUDY ON THE REALITY OF DIGITAL
EDUCATION IN HIGHER EDUCATION FROM THE
PERSPECTIVE OF UNIVERSITY PROFESSORS. (A FIELD
STUDY AT THE FACULTY OF HUMANITIES AND
SOCIAL SCIENCES, MOHAMMED LAMINE DEBAGHINE
UNIVERSITY, SETIF 2)**

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Abstract:

This research paper aims to diagnose the reality of digital education in the higher education sector from the perspective of university professors at the College of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2. The descriptive method was adopted and for data collection, a questionnaire was administered to a sample of 75 university professors, selected randomly and proportionally. The central research question was:

What is the reality of digital education in the higher education sector from the perspective of university professors at the College of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2?

The sub-questions were:

-What are the modern techniques used in digital education in the higher education sector from the perspective of university professors at the College of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2?

-What are the challenges faced in the implementation of digital education in the higher education sector from the perspective of university professors at the College of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2?

Keywords: Digital education, higher education, modern techniques, challenges of implementing digital education.

Introduction:

In view of the circumstances created by the COVID-19 pandemic in the world and in particular in Algeria, which has affected all sectors of life, especially the education sector, considered one of the sectors most affected by this pandemic, most countries in the world have been forced to suspend classes and close schools and universities in order to limit the spread of the coronavirus. This has disrupted the functioning of the education sector, threatening development and progress. To cope with these conditions and to try to ensure

the continuity of education and the completion of students' academic pathways, the importance of adopting a modern educational strategy aimed at activating the educational process has emerged. One of the most prominent strategies is digital education, as an alternative to traditional education, which has not been able to cope with these changes and the demands of this century. Hence the importance of digital education as a necessity imposed by this pandemic to this day, with characteristics that make it the most suitable alternative to reduce the effects of COVID-19 on the educational process.

It is a tool that supports the educational process, transforming it from a traditional format to one of creativity, interaction and skills development. However, like other modern strategies adopted in the educational process, it faces many difficulties that hinder the achievement of its objectives, especially in improving the quality of the educational process in higher education by producing graduates who meet the requirements of the labour market on the one hand, and keeping up with technological advances on the other. Therefore, this research aims to shed light on the significant change that has affected various aspects of life, especially in the field of education, namely digital education. The central research question is as follows:

What is the reality of digital education in the higher education sector from the perspective of university professors at the College of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2?

The sub-questions are:

- What are the modern techniques used in digital education in the higher education sector from the perspective of university professors at the College of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2?
- What are the challenges faced in the implementation of digital education in the higher education sector from the perspective of university professors at the College of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2?

1- The objectives of the study are:

- To diagnose the reality of higher education from the perspective of university professors at the Faculty of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2.
- To identify the modern techniques used in digital education in the higher education sector from the perspective of university professors at the College of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2.
- To identify the challenges faced in the implementation of digital education in the higher education sector from the perspective of university professors at the College of Humanities and Social Sciences, Mohammed Lamine Debaghine University, Setif 2.

2-Operational definitions:

-Education: The process, procedures, steps or mechanisms carried out by university professors to bring about mental, emotional and performance changes in university students at Mohammed Lamine Debaghine University, Setif 2.

-Digital education: In this study, it refers to a method of remote learning between the two parties involved in the educational process, regardless of location or time. It can be synchronous or asynchronous, where the content of the scientific material is delivered through different technological media with interaction.

-University Professor: A member of the faculty in charge of transmitting knowledge and supervising the pedagogical process at Mohammed Lamine Debaghine University, Setif 2. They perform various tasks such as teaching, academic guidance of students, conducting scientific research and its supervision.

3- Previous studies:

1. Ben Wadah Al-Hashimi's (2019) study, entitled "The role of digital (electronic) education in improving the quality of educational services in Algerian universities", aimed to identify the role of digital education in improving the quality of educational services in Algerian universities. To achieve the objectives of the study, the researchers designed a questionnaire that was distributed to a sample of 400 teachers at Biskra University. The analysis was carried out using the SPSS statistical programme. The study found that:

-There is an impact of digital education on the improvement of the quality of educational services from the perspective of teachers at the researched university.

-The use of digital education in the university helps students to develop their skills, knowledge and experience.

-It contributes to updating the electronically delivered educational materials and providing them with the latest developments.

The study also recommended the implementation of digital education plans based on the resources available in the university. (Ben Wadah Al-Hashimi, 2019, p. 51)

2. Unique study: Flak (2021) - Digital education in Algerian universities: Reality and perspectives from the point of view of professors.

This study aims to shed light on the reality of digital education in Algerian universities and to identify the main challenges hindering its implementation, especially in light of the use of digital education systems adopted by various international universities, as well as to explore its future and prospects. To achieve the study's objective, a questionnaire was used and distributed to a sample of 40 university professors of different ranks.

Some of the main findings of the study are as follows:

-The requirements of digital education in Algerian universities mainly consist of having a dedicated university website to communicate with students. The university is also working on organising and developing digital teaching and raising awareness of the importance of e-learning among professors, students and the administration.

-Digital education plays an important role in higher education as it helps to renew educational goals in line with the knowledge age. It aims to make technology an integral part of the educational system and serves as an entry point for educational quality, in addition to being an innovative form of education.

-The difficulties in implementing e-learning in Algerian universities include a lack of training in this area, technical problems, a lack of support resources and material means for e-learning, inadequate infrastructure, a low level of responsiveness and willingness to

engage in this type of learning among learners and trainees, and a lack of conviction among some people in it as an alternative to traditional education.

-Professors' opinions on the future and prospects of digital education in Algerian universities vary, with some seeing successful future prospects and positive signs of development, while others deny or doubt it. (Flak, 2021, p. 412)

The theoretical aspect:

1- The concept of digital education:

There are several concepts associated with digital education, depending on the orientations and perspectives of researchers. Sometimes it is associated with different concepts such as e-learning, distance learning and virtual learning.

According to the European Commission (2001), the aim of digital education is "to use modern technology and multimedia to improve the quality of education by facilitating access to resources and services, and by supporting remote exchange and collaboration". It is open or distance education that can be relied on in blended learning, both face-to-face and remote" (Hinri et plante, 2018, p.4).

The Arab Administrative Development Organisation defines digital education as "a method of teaching and learning that uses technological media in the process of transferring and delivering information between the teacher and the learner, such as computers, networks, and media such as sound, images, electronic libraries, and the Internet. This use can be as simple as using these electronic media to present and discuss information in the classroom, or it can go beyond this to what are known as virtual classrooms, where the educational process takes place through network technologies, video and other means" (Baji Abdelkader et al., 2022, p.3).

Jabroui sees it as "instant electronic communication between the teacher and the student through communication networks via the Internet, turning the college into a networked institution" (Jabroui Ismail et al., 2022, p 8).

Al-Ajras defines it as "a method of education that uses modern communication mechanisms such as computers, networks, and various media such as sound, images, graphics, search mechanisms, and electronic libraries, as well as electronic portals, whether at a distance or in the classroom, using various technologies to deliver information to the learner in the shortest time, with the least effort, and with the greatest benefit" (Al-Ajras Haider Hatem Faleh, 2017, p.21).

2- Characteristics of digital education:

Among the important characteristics of digital education, distance learning relies on skills and higher order thinking, encourages active learning, and promotes participation through interaction and communication among learners. It provides connectivity and a transition from the knowledge model to the guided learning model (Jabroui Ismail et al., 2022, p.11).

Zayek and Baji (2022) identify the following characteristics of digital education:

-**Accessibility:** Digital educational resources can be easily disseminated and accessed online, allowing for flexible use and benefits in different educational contexts.

-Utilisation and reusability: Digital educational content can be modified and reused with minimal adjustments, making it adaptable to different educational settings.

-Customisation: Certain features of digital education, such as colour, font size and style, can be modified to suit specific educational contexts.

-Individualisation: In some cases, digital educational materials can be accessed and used directly without the need for additional software or applications, while in others, modern technologies such as smart applications are used.

-Interactivity: Interactivity is a crucial aspect of digital education, allowing learners to engage with learning materials through actions such as dragging and dropping, placing frames around images or adding comments. Learners are active and involved, allowing them to communicate with teachers or leave comments on topics of particular interest (Zayek, Baji Abdelkader, et al., 2022, p.4).

Other features highlighted by Khassaf include:

-Enhancing individual education and facilitating mutual communication and interaction.

-Moving from the knowledge transfer model to the guided learning model.

-Encouraging dynamic and lively learner participation.

- Focusing on skills, especially higher order thinking skills.

-Provide multiple levels of interaction and encourage active learning.

- Emphasising problem-based learning and addressing real-life issues for learners (Khassaf Hameed, Zainab, 2020, p.373).

The aforementioned characteristics of digital education highlight its existence as an inevitable alternative to formal education, providing high quality content to ensure the effectiveness of the educational process.

3- The importance of digital education:

Digital education has become an integral part of the education system and has significantly changed the way we perceive education in today's world. It offers many benefits and advantages that countries, communities and students can benefit from in the future (Khassaf Hameed Zainab, 2020, p.382).

The importance of digital education can be understood through the following points mentioned by Al-Qarni:

-Increased connectivity among students: Digital education contributes to increased interaction and communication among students, both among themselves and with educational institutions, thus motivating students to participate in the topics discussed.

-Facilitating diverse perspectives among students: This is achieved through instant forums such as discussion boards and chat rooms, which provide opportunities to exchange different viewpoints on the issues at hand.

-Foster a sense of equality: Digital communication tools allow every student to express their opinions without hesitation, unlike traditional classrooms where factors such as seating arrangements, poor voice projection or shyness can inhibit participation.

-Easy access to teachers: Digital education allows students to easily contact their teachers through means such as email, providing a convenient and timely way to seek

clarification. This feature is also beneficial for teachers as they are not tied to their offices and can respond to student queries at any time.

-Flexibility in teaching methods: Digital education allows content to be delivered in a variety of formats to suit individual students. Students can choose visual, auditory or textual methods according to their preferences, and digital platforms offer the flexibility to use learning resources in different ways.

-Suitable for different learning styles:

Digital education allows learners to focus on important ideas while writing and organising lectures, making it suitable for students who have difficulty concentrating. It is visually appealing, well organised and clearly identifies important elements.

Availability of the curriculum throughout the day and every day of the week:

This benefits individuals who prefer to study at certain times and those with personal responsibilities and commitments, allowing them to study at their convenience.

4- Continuous access to the curriculum:

Students can access the information they need at any time.

Elimination of dependence on physical presence:

Modern technology has provided means of communication without the need for specific places or times.

In light of these factors, digital education ensures high quality performance and creates a new atmosphere of creativity, innovation, excellence and competition. It enhances the ability to plan effectively and encourages students to be prepared for online learning.

-Aims of digital education:

Digital education aims to deliver educational content to learners using different technological media to achieve a range of objectives, including:

-Creating an interactive learning environment through new electronic technologies and diversifying sources of information and experience.

-To improve the relationship between parents and schools and between schools and the outside world.

-Encouraging interaction between pupils, teachers and assistants through the exchange of educational experiences, opinions, discussions and targeted dialogues using different communication channels such as e-mail, chat and virtual classrooms.

-To equip teachers with the technical skills to use modern educational technologies.

- To equip students with the necessary communication and information technology skills.

-To model and present education in a standardised format.

- Developing the role of the learner in the educational process to keep pace with continuous scientific and technological developments.

-Expanding students' communication networks through global and local communication networks, and not relying solely on teachers as a source of knowledge, by linking educational websites with other educational websites to expand students' knowledge.

- Creating educational networks to organise and manage the work of educational institutions.

-To provide education appropriate for different age groups, taking into account individual differences between learners.

By examining these objectives, it is clear that digital education aims to ensure the quality of competences related to the educational process, as a higher goal that leads to innovation in the field.(Alla mokhtar.2020.p:653)

5-Advantages of digital education:

Digital education has several advantages that help institutions to use it effectively according to their needs. Some of the important advantages are

5-1 Flexibility: It gives learners the opportunity to learn regardless of their commitment to receive it under certain conditions.

5-2 Impact and effectiveness: Research on digital education systems has shown that they are as effective or more effective than traditional education systems when these technologies are used efficiently.

5-3 Cost-effectiveness: Many forms of digital education do not require a significant amount of money.

5-4 Overcoming barriers: Digital education is not bound by time or place. (Baji Abdelkader et al., 2022, p. 5)

Applied aspect:

-Field of study:

*Spatial field: The study was conducted at Mohammed Lamine Debaghine University, Setif 2.

*Temporal field: The study was conducted from 1 November to 10 November 2023.

-Methodology of the study:

Considering that the subject of the study belongs to the descriptive studies, a descriptive methodology was adopted in accordance with the nature of the topic entitled "The reality of digital education in improving the educational process in the higher education sector from the perspective of professors."

-Study sample:

The study population consists of professors at the Faculty of Humanities and Social Sciences at Lamine Debaghine University, Setif 2, with a total estimated number of 210 professors from different academic ranks.

The sample was selected using a relative stratified random method with a sample size of 75 professors.

Table No. (1): Represents the distribution of individuals in the study population.

Departement	Frequency	Percentage (%)
Department of Psychology	82	39.04
Department of Sociology	77	36.66
Department of History	51	24.28
Total	210	100

-Professors in the Department of Psychology: 82 (sample size) 100%.

n 39.04% (percentage of professors)

n = 33

-Sociology professors: 77 (sample size) 100% n

n 36.66% (percentage of professors)

n = 29

-Professors from the Department of History: 51 (sample size) 100% n

n 24.28% (percentage of professors)

n = 13

Therefore, the sample size for this study was estimated to be 75 professors, representing 35.71% of the original population.

-Data collection instruments:

In this study, a questionnaire was used as a data collection tool, which consisted of two axes:

Axis 1: Digital teaching techniques, including 9 items: 1-2-3-4-5-6-7-8-9.

Axis 2: Difficulties in implementing digital education, including 11 items: 10-11-12-13-14-15-16-17-18-19-20.

Each axis contains several statements, designed according to the three-point Likert scale, where each item has three response levels: Agree, Neutral, Disagree. We used the following scoring scale: Disagree (1), Neutral (2), Agree (3). As shown in the table:

Response	Agree	Neutral	Disagree
Encoding	3	2	1
Field	2.33_3	-1.66 2.33	1_1.66
Level	High	Medium	Low

Source: (prepared by the researcher, 2023, SPSS outputs)

Psychometric properties:

-Calculation of the validity of the questionnaire:

The content validity was relied on, where in this phase the questionnaire was presented in its initial form to a group of experts from the faculty members of the Faculty of Humanities and Social Sciences - Mohammed Lamine Debaghine University, Setif. The number of experts was estimated at 6 professors. After presenting the questionnaire to the experts, the validity of the questionnaire was calculated using the following equation:

-Lawshe's equation for questionnaire validity: $CV = PB / N$. Validity of the experts: $9.64/11 = 0.87$.

Based on this, it can be concluded that the validity coefficient of the questionnaire is high at 0.87, which indicates that the questionnaire is valid for measuring the intended purpose.

-Calculation of the reliability of the questionnaire:

Cronbach's alpha equation was used on a sample estimated to be 30 people.

Table No. (4): Shows the value of Cronbach's alpha for the questionnaire.

Questionnaire	Cronbach's Alpha Value
Digital Education	0.92

Source: (prepared by the researcher, 2023, SPSS outputs)

Based on the previous results shown in the table above, it is evident that the value of Cronbach's alpha coefficient for the questionnaire is high, which indicates the internal consistency of the questionnaire items. This makes the questionnaire reliable for administration.

5- Methods of statistical analysis:

The following descriptive and inferential statistical measures were used to analyse the study data: frequencies, percentages and means.

-Presentation, analysis and discussion of results:

-Presentation, analysis and discussion of the first question regarding the techniques used in digital education in higher education at Mohammed Lamine Debaghine University.

Table No. (2): Shows the responses of the sample participants regarding the techniques used in digital education in higher education at Mohammed Lamine Debaghine University.

State ment	Agree		Disagree		Sometimes		Mea n (Ave rage)	Lev el
	Freq uency	%	Freq uency	%	Freq uency	%		
01	5	6.97	56	74.41	14	18.61	1.88	Me diu m
02	13	16.27	38	51.66	24	23.55	1.85	Me diu m
03	49	65.11	9	11.62	17	23.26	2.42	Hig h
04	25	32.55	12	16.27	38	51.17	1.82	Me diu m
05	45	60.46	7	9.30	23	30.23	2.29	Me diu m
06	41	55.81	13	16.77	21	27.41	2.26	Me diu m
07	7	9.30	55	72.90	13	16.80	1.92	Me diu m

08	42	55 .8 1	12	16 .2 7	21	27 .9 1	2.28	Me diu m
09	49	65 .1 1	10	13 .9 5	16	20 .9 3	2.44	Hig h
Overall Mean (Average)							2.12	Me diu m

According to the table above, the responses of the study sample regarding the importance of different technologies used in digital education among professors at Mohammed Lamine Debaghine University were moderate, as indicated by the estimated mean of 2.12. The results are as follows:

%74.41 -of the sample participants believe that the university does not provide dedicated classrooms for digital education for faculty members, with a mean of 1.88, indicating a moderate level.

%51.16 -of sample respondents indicated that professors do not use digital blogs to deliver lectures, with a mean score of 1.85, indicating a moderate level.

%65.11 -of sample participants indicated that professors use email to send and receive academic files, with a mean score of 2.42, indicating a high level.

%32.55 -of sample respondents indicated that professors use electronic media such as CDs, projectors, and fibre optics, with a mean score of 1.82, indicating a moderate level.

%60.46 -of sample respondents believe that professors use e-books instead of printed books, with a mean score of 2.29, indicating a high level.

%55.81 -of the sample confirmed that professors share electronic lectures through social media platforms, with a mean score of 2.26, indicating a high level.

%72.09 -of the sample stated that professors do not use interactive video conferencing to deliver educational programmes, with a mean score of 1.92, indicating a medium level.

%55.81 -of sample respondents indicated that the university provides an electronic portal for faculty members to publish guidelines and university related instructions, with a mean score of 2.28, indicating a high level.

%65.11 -of sample respondents indicated that professors use the Moodle platform for teaching, with a mean score of 2.44, indicating a high level.

Based on the above, it can be concluded that the infrastructure at the Algerian university mainly consists of providing a dedicated university website for student communication and working on the organisation and development of digital teaching. There is also an awareness of the importance of digital education among professors, students and the administration.

One of the most commonly used tools in digital education is email, as it is an effective means of encouraging the practice of digital learning by facilitating communication with different academic institutions in the field of specialisation. In addition, it allows

communication with students and colleagues at any time through the Internet by sending and receiving different types of messages, whether visual, printed or audio files.

Another commonly used platform is Moodle, which provides a pedagogical space for practising digital learning and transferring knowledge to students. CD-ROMs, fibre optics and projectors are also occasionally used as engaging tools in the educational process, as they help students to break out of routine and increase the speed at which they absorb knowledge. However, interactive videoconferencing is not widely used by professors, even though it is a synchronous communication method that allows interactive connections between the parties involved in the educational process. This may be due to the lack of training and development of professors' skills in the use of these modern technological tools, indicating the shortcomings of the university in providing training programmes that contribute to the activation of the educational process. This was confirmed by a study carried out by Farida Flak.(2021)

Presentation, analysis and discussion of the second question: What are the challenges facing the implementation of digital education in the higher education sector at Mohammed Lamine Debaghine University?

Table 3: Illustrates the responses of the sample participants regarding the challenges facing the implementation of digital education in the higher education sector at Mohammed Lamine Debaghine University.

State ment	Agree		Disagree		Sometimes		Mea n (Ave rage)	Lev el
	Freq uency	%	Freq uency	%	Freq uency	%		
01	54	72 .0 9	7	9. 30	14	18 .6 0	2.53	Hig h
02	64	85 .4 5	4	5. 33	7	9. 33	2.76	Hig h
03	45	65 .1 1	10	13 .6 5	16	20 .9 3	1.83	Me diu m
04	58	77 .2 7	9	12	8	10 .6 6	2.66	Hig h
05	47	61 .8 1	12	16	16	21 .3 3	2.41	Hig h
06	59	78 .1 8	10	13 .3 3	6	8	2.70	Hig h

07	62	82 .7 2	6	8	7	9. 33	2.73	Hig h
08	54	72 .0 9	15	20	6	8	2.64	Hig h
09	7	9. 30	54	72 .0 9	14	18 .6 0	1.90	Me diu m
10	7	6. 39	449	65 .1 1	19	25 .8 5	1.84	Me diu m
11	25	32 .5 5	12	16 .2 7	38	51 .1 7	1.82	Me diu m
Overall Mean (Average)								Hig h

According to the table above, the responses of the study sample indicate a high level of difficulty in implementing digital education in the higher education sector at Mohammed Lamine Debaghine University, as evidenced by the estimated mean of 2.34.

The results were as follows:

%72.09 -of the sample participants believe that the university does not provide dedicated study rooms for e-learning for faculty members, with a mean of 2.53, indicating a high level of difficulty.

-In particular, 85.45% of the participants' responses confirm the existence of a lack of digital training for teaching staff in the area of digital education, with an average score of 2.76, indicating a high level of difficulty.

-In addition, 65.11% of the sample participants indicated a lack of computer equipment in lecture halls and classrooms, with an average score of 2.66, indicating a high level of difficulty.

%77.27 -of the respondents indicated that the university provides an electronic management system to monitor and provide all necessary information, with an average score of 1.83, indicating a medium level of difficulty.

%61.81 -of sample respondents believe that the university provides an electronic library for faculty members to access electronic resources, with an average score of 2.41, indicating a high level of difficulty.

-Notably, 82.72% of the participants' responses confirm that teachers do not receive training to develop their digital technology skills in the working environment, with an average score of 2.73, indicating a high level of difficulty.

%72.09 -of the participants' responses indicate that the university does not provide the necessary resources for the use of modern electronic tools in the digital educational environment, with an average score of 2.64, indicating a high level of difficulty.

-In addition, 72.09% of the participants' responses indicate that the administration does not encourage the use of e-learning culture in the virtual university environment, with an average score of 1.84, indicating a moderate level of difficulty.

65.11% of the participants' responses indicate that there is a lack of sufficient training courses for university professors on how to develop electronic curricula, with an average score of 1.84, indicating a moderate level of difficulty.

-Furthermore, 32.55% of the participants' responses indicate that the university does not provide incentives for excellence in digital education, with an average score of 1.82, indicating a moderate level of difficulty.

From the point of view of university professors, the difficulties encountered in the application of digital education in Algerian universities can be attributed to the lack of training courses in this field, as well as to technical problems, limited resources and material support for digital education, the lack of infrastructure, the low level of acceptance and willingness to engage in this type of education on the part of teachers or students, and the lack of conviction on the part of some individuals in this alternative to traditional education. These findings were confirmed by a unique study conducted by Farida Flak.

Moreover, it is not well understood by both professors and students, and all these factors hinder the successful transition from traditional face-to-face education to digital education, which is an obstacle in the educational process. It is therefore necessary to consider the training and development of both professors and students from various perspectives, as well as the provision of the appropriate digital infrastructure, before considering the transition to digital education. As highlighted by Ben Eloued Hachemi in his study (2019), digital education contributes to the quality of university services by developing students' skills, knowledge, and experience in line with the demands of the job market.

The overall conclusion of the study is as follows:

The results of the study indicate that:

-University professors at Setif 2 University use a number of modern technological tools to support digital education, including electronic platforms with a percentage of 32.55%, sharing lectures through social media sites with a percentage of 55.81%, as well as using email as a means of sending and receiving scientific files with a percentage of 65.11%, and using the Moodle platform with a percentage of 65.11%. However, according to the responses of the sample participants, they do not use digital blogs to present lectures, with a percentage of 51.16%.

-The limited resources and means have led university professors to use certain technological tools over others in the educational process. This, in turn, has become one of the main obstacles to achieving educational goals in the context of digital education. These obstacles are mainly related to material and technical limitations. The largest number of professors surveyed, 74.41%, believe that the university does not provide dedicated classrooms for digital education. In addition, there is a lack of infrastructure

such as Internet access and computer equipment, with a percentage of 65.11%, which are crucial requirements for the success of digital education in the university. As far as human barriers are concerned, these include the lack of professors' knowledge of digital technologies in the teaching process, coupled with a lack of training courses, especially in the construction of electronic curricula.

Conclusion:

Digital education, whether in K-12 or higher education, remains an important and timely issue. It represents an advanced form of education that relies on electronic media and the Internet to deliver educational content. It differs from traditional education in its speed, efficiency and the ability of the learner to access education anytime, anywhere, without the need for constant physical presence. However, like any new initiative, digital education faces various challenges at different levels.

Therefore, it is necessary to provide appropriate infrastructure that contributes to the enhancement of higher education through digital education. It has become a reality that needs to be addressed in the Algerian educational landscape in general and in the Algerian university in particular.

Based on these conclusions, several proposals can be made:

- Emphasise the dissemination of the culture of digital education and increase the awareness of the teaching staff of the importance of digital education in university teaching.

- Provide training courses for teaching staff on the essential skills required for the effective use of modern digital technologies in higher education.

- Establishing digital curriculum development teams to help professors create their own course materials for each subject they teach.

- Providing financial incentives for those who use modern electronic teaching methods, such as online lectures.

- Providing dedicated classrooms for digital teaching, improving internet services and organising workshops to improve electronic digital teaching skills.

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