

**The Reality of Distance Learning in Enhancing the Quality of University  
Education from the Perspective of University Professors  
A Field Study at the University of Continuing Education, Echahid Hamma  
Lakhdar University, El Oued**

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**ABSTRACT:**

The present study primarily aimed to investigate the reality of distance learning in enhancing the quality of university education from the perspective of university professors. A field study was conducted on faculty members at the University of Continuing Education, affiliated with Echahid Hamma Lakhdar University in El Oued. The study adopted an analytical descriptive approach, with a sample size of 109 professors selected through comprehensive sampling. Data were collected using a questionnaire comprising 98 items covering seven dimensions. To test the study's hypotheses, descriptive statistics (percentages, frequencies, and relative weights) were employed. The study yielded the following results:

Flexibility and accessibility in distance learning enhance the quality of university education by 40%, according to professors' perspectives.

Technology in distance learning enhances the quality of university education by 40%, according to professors' perspectives.

Interaction and communication in distance learning enhance the quality of university education by 34%, according to professors' perspectives.

The academic quality of digital content in distance learning enhances the quality of university education by 35%, according to professors' perspectives.

Assessment and follow-up in distance learning enhance the quality of university education by 37%, according to professors' perspectives.

Professional development of faculty members in distance learning enhances the quality of university education by 36%, according to professors' perspectives.

Management and oversight in distance learning enhance the quality of university education by 32%, according to professors' perspectives—a relatively low value compared to other dimensions.

**Keywords:** Distance Learning, Quality of University Education.

## 1. Study Problem:

University education in Algeria represents a fundamental pillar for economic and social development, as it includes a large number of academic institutions that accommodate thousands of students annually. Despite the significant expansion that higher education in Algeria has witnessed, the challenges facing this sector require the adoption of innovative solutions to overcome them. Among these challenges are the continuous increase in the number of students, limited infrastructure in some universities, and the inadequacy of traditional resources to meet the needs of the educational process. In this context, the need emerged to transition toward distance education as a strategic solution aimed at addressing these challenges and enhancing the quality of university education. This step accelerated during the COVID-19 pandemic, as distance education became a necessary option to ensure the continuity of the educational process under health restrictions. Distance education allows universities to expand the accessibility of higher education to include more students, enabling them to pursue their studies according to their personal circumstances, which supports the education of working individuals or those facing other commitments. The need to improve technological infrastructure, such as virtual learning platforms and internet networks, has driven the development of educational systems that align with the digital age. The COVID-19 pandemic also revealed the importance of having sustainable educational alternatives, prompting Algerian universities to accelerate the adoption of distance education as a solution to deal with such crises. Thus, the transition to distance education in Algeria was not just a temporary option but a strategic path to develop university education and ensure its continuity in the face of current and future challenges. This is confirmed by recent studies, including the study by McAllen et al. (2021), which affirmed that investment in digital administrative systems contributes to improving student performance and ensuring academic integrity. Similarly, the study by Jones and Smith (2020) indicated that developing faculty skills in using technology enhances the effectiveness of distance education. The study by Lindberg et al. (2019) pointed out problems of integrity in electronic exams and the weakness of control tools in preventing cheating. Studies indicate that the success of distance education does not depend solely on technology but on how effectively that technology is used, provided there is a suitable digital environment and continuous support. Distance education opens new horizons for university education but requires continuous investment in various areas such as the technological aspect, professional development, infrastructure, and understanding its contribution to academic quality. Therefore, the focus must be on enhancing the overall learning experience, which combines interaction, integrity, and technical support. University education in Algeria constitutes a strategic axis for achieving human development and contributing to building a knowledge-based society. Despite the efforts made to enhance the quality of university education, it still faces major challenges such as overcrowding in universities, lack of educational resources, and

disparities in infrastructure among institutions. In this framework, distance education was introduced as a new tool to support traditional education, aiming to overcome these challenges and enhance the flexibility of the educational system. Algerian universities have a long history of traditional education, but they face obstacles that reduce the chances of enhancing quality, such as the absence of interactivity in the educational process, the ineffective use of technology, and the scarcity of professional development opportunities for faculty members. Universities also suffer from a lack of resources and infrastructure, which can negatively impact the provision of a comprehensive educational experience for students. With the introduction of distance education, a new educational model has emerged that offers opportunities to improve access to education and develop teaching methods. Distance education allows the use of digital educational platforms, interactive tools, and student performance analysis techniques, which may contribute to improving the quality of education if implemented correctly. However, this model faces challenges in Algeria that require continuous investments in digital infrastructure, development of technological competencies among faculty members, and ensuring interaction and academic integrity to achieve maximum benefit. All of this falls within the framework of improving the quality of university education, as confirmed by studies, including the 1993 study by Harvey & Green, which presented a theoretical framework for defining the quality of higher education. This study affirmed that achieving quality in university education depends on the integration of a set of dimensions to ensure that academic programs are aligned with the needs of the market and society. The study by Altbach, Reisberg & Rumbley (2009) highlighted the challenges facing the quality of higher education in developing countries, such as funding, the growing number of students, and the lack of technical infrastructure. This study emphasized that distance education represents an effective means to improve access and quality if supported with appropriate technologies. The study by Tight (2003) confirmed that quality assessment should be comprehensive and take into account academic and administrative dimensions. The study by Ibrahim and Salim (2015) indicated that many universities in Arab countries suffer from a lack of strategic planning to achieve quality and recommended the use of digital technology to support the educational process and achieve quality standards. Studies show that achieving quality university education depends on multiple factors including technology, academic training, infrastructure, and the relevance of educational programs to labor market requirements. They also affirm that distance education represents an opportunity to enhance quality, but it requires thoughtful implementation and sustainable investment to ensure its success.

Therefore, distance education is considered one of the significant transformations witnessed by the education sector in recent years, as it enabled universities to expand the scope of education to include a wider segment of students, transcending geographical and temporal barriers. This model relies on the use of technology to deliver educational content and manage the educational process through digital platforms, providing great flexibility for students and faculty members. Despite these advantages, distance education raises ongoing debates about the extent to which it enhances the quality of university education. This is not limited to educational content only, but also includes assessment methods, interaction between students and faculty, and digital infrastructure. In this context, there is a need for a deep understanding of the opportunities and challenges that distance education presents and how it can be improved to ensure academic standards are met and the goals of university education are achieved. In light of rapid technological advancement, distance education has become an urgent necessity and not just an option in many universities around the world, especially with the emergency transformations imposed by the COVID-19 pandemic. This type of education provided new opportunities for access to knowledge in a flexible manner, as

students from various geographical locations can easily enroll in educational courses, enhancing the inclusiveness of education. However, its contribution to the quality of university education is a complex issue involving a range of interrelated positive and negative factors.

Based on the above and for the purpose of investigation and research, the present study was conducted to explore the reality of distance education in enhancing the quality of university education from the perspective of faculty members at the University of Continuing Education at Martyr Hamma Lakhdar University in El Oued, where the main research question can be posed as follows:

**Does the reality of distance education enhance the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued?**

This main question is subdivided into the following sub-questions:

- Does the reality of flexibility and accessibility in distance education enhance the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued?
- Does the reality of technology in distance education enhance the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued?
- Does the reality of interaction and communication in distance education enhance the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued?
- Does the reality of academic quality of digital content in distance education enhance the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued?
- Does the reality of assessment and monitoring in distance education enhance the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued?
- Does the reality of professional development for faculty members in distance education enhance the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued?
- Does the reality of administration and oversight in distance education enhance the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued?

## **2. Study Hypotheses:**

### **2.1 General Hypothesis:**

The reality of distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

## **2.2 First Sub-Hypothesis:**

The reality of flexibility and accessibility in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

## **2.3 Second Sub-Hypothesis:**

The reality of technology in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

## **2.4 Third Sub-Hypothesis:**

The reality of interaction and communication in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

## **2.5 Fourth Sub-Hypothesis:**

The reality of the academic quality of digital content in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

## **2.6 Fifth Sub-Hypothesis:**

The reality of assessment and monitoring in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

## **2.7 Sixth Sub-Hypothesis:**

The reality of professional development for faculty members in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

## **2.8 Seventh Sub-Hypothesis:**

The reality of administration and oversight in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

## **3. Operational Definition of Study Variables:**

### **3.1 Distance Education:**

Distance education is a non-face-to-face learning process through which knowledge and information are delivered to learners in different geographical areas without abandoning social connections (Al-Ghamdi, 2013, p. 73).

Operationally, it is defined as the responses that determine university professors' attitudes toward the reality of the distance education system as a result of the use of e-learning platforms, visual and audio communication tools, and interactive instruments for conducting lessons, lectures, and examinations through technology and digital means to deliver educational content to students instead of traditional in-person classroom attendance.

### **3.2 Quality of Education:**

The quality of education is defined as a set of characteristics and features that distinguish education and its dimensions in terms of inputs, processes, outputs, and feedback, all of which contribute to achieving various goals, including meeting students' needs and serving the community (Al-Rashdi, 2009, p. 23).

Operationally, the quality of education is defined as the responses that determine professors' attitudes toward the quality of education through indicators and standards that include students' academic achievement, satisfaction levels, extent of achieving educational objectives, and contributions to social and cultural development by improving the effectiveness of education, meeting the educational and social needs of students and the community, providing a suitable learning environment, developing appropriate curricula and educational programs, enhancing faculty efficiency, promoting scientific research, and ensuring the availability of necessary educational facilities and tools.

### **4. Importance of the Study:**

Studying the reality of the distance education system in enhancing the quality of education holds great importance due to the digital transformations occurring in the higher education sector, especially after the COVID-19 pandemic, which compelled Algerian universities to adopt this system on a wide scale.

Improving the quality of university education helps in assessing the current state of distance education through the quality of educational curricula, students' achievement levels, and the efficiency of professors in delivering educational content.

Enhancing distance education can contribute to proposing effective educational strategies, such as using modern technology, encouraging interaction between students and professors, and providing personalized educational support.

Analyzing the challenges faced by students and professors, such as lack of internet access and shortage of electronic devices, may highlight limitations in achieving equal educational opportunities.

Identifying the obstacles preventing the achievement of quality education in the distance education system such as weak direct interaction, difficulty in evaluating student performance, and poor technological skills can provide critical insights.

Distance education helps provide flexible educational alternatives that meet the diverse needs of students, such as working students or those with special needs, thereby enhancing educational opportunities for all.

Understanding the level of satisfaction among stakeholders regarding the distance education experience enables universities to improve their services and provide a more efficient educational experience in the future.

### **5. Objectives of the Study:**

This study mainly aims to:

- Identify the reality of distance education in enhancing the quality of university education.

- Identify the reality of flexibility and accessibility in distance education in enhancing the quality of university education.
- Identify the reality of technology in distance education in enhancing the quality of university education.
- Identify the reality of interaction and communication in distance education in enhancing the quality of university education.
- Identify the reality of the academic quality of digital content in distance education in enhancing the quality of university education.
- Identify the reality of assessment and monitoring in distance education in enhancing the quality of university education.
- Identify the reality of professional development for faculty members in distance education in enhancing the quality of university education.
- Identify the reality of administration and oversight in distance education in enhancing the quality of university education.
- Develop a questionnaire to measure the reality of distance education in enhancing the quality of university education.

## **6. Study Methodology:**

In the present study, the descriptive analytical method was adopted, as it is the most appropriate approach that helps in describing the phenomenon under investigation.

## **7. Description of the Measurement Tool Used:**

To measure the study variables, a questionnaire was prepared by the researcher to assess the reality of distance education in enhancing the quality of university education.

The questionnaire was constructed after reviewing various previous studies that addressed the subject of the distance education system as well as the quality of university education, and by identifying the various behavioral aspects that fall within the framework of digital education and education quality, which collectively can form and cover this phenomenon in all its dimensions. The current questionnaire consists of seven (07) main dimensions arranged as follows:

- The reality of flexibility and accessibility in distance education in enhancing the quality of university education, this dimension includes (17) positive items.
- The reality of technology in distance education in enhancing the quality of university education, this dimension includes (17) positive items.
- The reality of interaction and communication in distance education in enhancing the quality of university education, this dimension includes (11) positive items.
- The reality of the academic quality of digital content in distance education in enhancing the quality of university education, this dimension includes (13) positive items.
- The reality of assessment and monitoring in distance education in enhancing the quality of university education, this dimension includes (14) positive items.

- The reality of professional development for faculty members in distance education in enhancing the quality of university education, this dimension includes (13) positive items.
- The reality of administration and oversight in distance education in enhancing the quality of university education, this dimension includes (13) positive items.

Each item has three response options: (Disagree, Agree, Strongly Agree), with each respondent receiving a score of (0, 1, 2).

### 7- Pilot Study:

After finalizing the items of the questionnaire prepared in this study, the approved version of the questionnaire was applied to a pilot sample of faculty members at the University of El Oued. The pilot study included a sample consisting of 30 university professors from the University of Continuing Education at Martyr Hamma Lakhdar University in El Oued.

### 8. Psychometric Properties of the Study Tool:

#### 8.1 Expert Validity:

The questionnaire was presented to a panel of experts consisting of 06 university professors of various academic ranks. The majority of their opinions varied regarding the questionnaire items, and their observations were taken into consideration in finalizing the wording of the questionnaire statements. As a result, some items were modified, others were removed, and the current items were retained (Mohamed Ibrahim, 2016, p. 242).

#### 8.2 Discriminant Validity (Extreme Groups Comparison):

To measure the discriminant validity of the questionnaire, the researcher relied on the extreme groups comparison method. After processing the data of the pilot sample, the total scores were collected and arranged in descending order, then the sample was divided into two groups: a high group and a low group, with 27% in each group (Maamria, 2007, p. 62).

The Statistical Package for the Social Sciences (SPSS22) was used to calculate the T-value for two independent samples. The results were obtained as recorded in the following table:

**Table No. (01): Discriminant Validity of the Questionnaire**

T significance level	T degrees of freedom	T value	Standard deviation	Mean	Group size	
Significant at 0.01	14	8.46	12.47	129.63	08	<b>Upper</b>
			12.35	77.13	08	<b>Lower</b>

Based on Table No. (01), we find that the mean score of the high group is 129.63 with a standard deviation of 12.47, while the mean score of the low group is 77.13 with a standard deviation of 12.35. The T-value is 8.46 at a degree of freedom of 14, which is statistically significant at the 0.01 significance level. Accordingly, we can say that there are statistically significant differences between the high and low groups, and thus the questionnaire allows for discrimination between the two groups. Therefore, it can be said that the questionnaire is valid.

### 8.3 Internal Consistency Validity:

The researcher calculated the internal consistency validity of the questionnaire by computing the correlation coefficient of each of the seven dimensions of the questionnaire with the total score of the questionnaire. The Statistical Package for the Social Sciences (SPSS22) was used to calculate the r-value for each dimension, and the results were obtained as recorded in the following table:

**Table No. (02): Internal Consistency Validity of the Questionnaire**

Significance level	Correlation coefficient (r) value	Sample size	Dimension
Statistically significant at 0.01	0.496	30	First dimension
Statistically significant at 0.01	0.82	30	Second dimension
Statistically significant at 0.01	0.64	30	Third dimension
Statistically significant at 0.01	0.84	30	Fourth dimension
Statistically significant at 0.01	0.74	30	Fifth dimension
Statistically significant at 0.01	0.76	30	Sixth dimension
Statistically significant at 0.01	0.78	30	Seventh dimension

Based on Table No. (02), we find that the correlation coefficient (r) values for the eight dimensions range between 0.49 and 0.84, and are statistically significant at the 0.01 level. This confirms that the questionnaire is consistent through the correlation of all dimensions with the overall score. Therefore, it can be said that the questionnaire is valid.

### 8.4 Reliability of Internal Consistency of the Items (Cronbach's Alpha):

The researcher calculated the reliability of the questionnaire using the internal consistency method (Cronbach's Alpha), through the Statistical Package for the Social Sciences (SPSS22). The results are recorded in the following table:

**Table No. (03): Internal Consistency Reliability (Cronbach's Alpha) of the Questionnaire**

Decision	Cronbach's Alpha value	Number of items	Dimension
Reliable	0.7	17	First dimension
Reliable	0.82	17	Second dimension
Reliable	0.82	11	Third dimension
Reliable	0.85	13	Fourth dimension
Reliable	0.75	14	Fifth dimension
Reliable	0.78	13	Sixth dimension

Reliable	0.85	13	Seventh dimension
<b>Reliable</b>	<b>0.95</b>	<b>98</b>	<b>Total</b>

Based on Table No. (03), we find that the Cronbach's Alpha values for the sub-dimensions of the questionnaire range between 0.7 and 0.85, which indicates the reliability of each dimension individually.

Furthermore, the table shows that the overall Cronbach's Alpha value for the questionnaire—that is, the internal consistency of the entire questionnaire items is 0.95. Thus, it can be said that the questionnaire is reliable.

### 8.5 Reliability through Split-Half Method:

The researcher calculated the reliability coefficient using the split-half method, where the items of the scale were divided into two equal halves (upper/lower), and then the Pearson correlation coefficient between the two halves was calculated using the Statistical Package for the Social Sciences (SPSS22). The results are recorded in the following table:

**Table No. (04): Questionnaire Reliability Using the Split-Half Method**

Significance level	Degree of freedom	Calculated r value	Statistical indicators
Significant at 0.01	28	0.93	<b>Before adjustment – Pearson</b>
		0.97	<b>After adjustment – Spearman-Brown</b>

Based on Table No. (04), we observe that the calculated Pearson correlation coefficient (r) before adjustment equals 0.93. In fact, this r-value represents the correlation coefficient between the two halves of the questionnaire. It was necessary to apply the Spearman-Brown correction formula, and the adjusted r-value was found to be 0.97, which is statistically significant at the 0.01 level. Accordingly, it can be said that the questionnaire is reliable.

### 9. Study Population and Sample:

The study population consists of faculty members at the University of Continuing Education at the University of El Oued who are engaged in distance education. The total number of university professors at the University of Continuing Education is 109 for the academic year 2024/2025. To select the sample for the present study, a properly representative sample of the population was ensured by including all units of the original population through a comprehensive survey. Thus, the study sample was estimated at 109 professors.

### 10. Criterion Adopted in the Study:

To determine the criterion adopted in the study, the length of the cells in the three-point Likert scale was calculated as follows:

- Calculating the range between the scale scores ( $2 - 0 = 2$ )
- Then dividing it by the highest value in the scale to obtain the cell length, i.e., ( $2 / 2 = 1$ )

- This value was then added to the lowest value on the scale (the start of the scale, which is zero) to determine the upper limit of this cell. Accordingly, the cell lengths were set as shown in the following table:

**Table (05): Criterion Adopted in the Study**

Degree of agreement	Corresponding relative weight	Cell length
Disagree	From 0% – 33%	<b>From 0 – 1</b>
Agree	More than 33% – 67%	<b>More than 1 – 2</b>
Strongly agree	More than 67% – 100%	<b>More than 2 – 3</b>

## 11. Presentation, Analysis, Discussion, and Interpretation of Results:

### 11.1 – Presentation, Analysis, Discussion, and Interpretation of the Results of the General Hypothesis:

The reality of distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

This hypothesis was measured using percentages, frequencies, and the weighted relative weight to determine the trend, utilizing the Statistical Package for the Social Sciences (SPSS22), where we obtained the results shown in the following table:

**Table No. (06): Presentation of the Results of the General Hypothesis**

Trend	Relative weight %	Mean	Strongly agree	Agree	Disagree	Dimension
			%	%	%	
Agree	37	1.11	26.2	58.2	15.6	The reality of distance education in enhancing the quality of education

Based on Table No. (06), it is observed that the percentage of university professors who strongly agree that the reality of distance education enhances the quality of university education is 26.2%, while 58.2% agree, which indicates that the majority of professors believe that distance education contributes to improving the quality of university education. This is further confirmed by the mean score of 1.11 and the relative weight of 37%, reflecting their agreement with this enhancement. However, there are some who have reservations about these results, which nonetheless supports the validity of the general hypothesis: the reality of distance education enhances the quality of university education.

### 11.2 – Presentation of the Results of the First Sub-Hypothesis:

The reality of flexibility and accessibility in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

This hypothesis was measured using percentages, frequencies, and the weighted relative weight to determine the trend, utilizing the Statistical Package for the Social Sciences (SPSS22), where we obtained the results shown in the following table:

**Table No. (07): Presentation of the Results of the First Sub-Hypothesis**

Trend	Relative weight %	Mean	Strongly agree	Agree	Disagree	Dimension
			%	%	%	
Agree	40	1.25	36.6	51.5	11.9	The reality of flexibility and accessibility in distance education in enhancing the quality of university education

Based on Table No. (07), it is observed that the percentage of university professors who strongly agree with the reality of flexibility in distance education and its enhancement of the quality of university education is 36.6%, while 51.5% agree. This indicates that the majority of professors believe that the reality of flexibility and accessibility in distance education enhances the quality of university education. This is further confirmed by the mean score of 1.25 and the relative weight of 40%, which reflects their agreement with this enhancement. However, there are others who have reservations in this regard, which supports the validity of the first sub-hypothesis: the reality of flexibility and accessibility in the distance education system enhances the quality of university education.

**11.3 – Presentation of the Results of the Second Sub-Hypothesis:**

The reality of technology in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued. This hypothesis was measured using percentages, frequencies, and the weighted relative weight to determine the trend, utilizing the Statistical Package for the Social Sciences (SPSS22), where we obtained the results shown in the following table:

**Table No. (08): Presentation of the Results of the Second Sub-Hypothesis**

Trend	Relative weight %	Mean	Strongly agree	Agree	Disagree	Dimension
			%	%	%	
Agree	40	1.2	32.5	55	12.5	The reality of technology in distance education in enhancing the quality of university education

Based on Table No. (08), it is observed that the percentage of university professors who strongly agree with the reality of technology in distance education and its enhancement of the quality of university education is 32.5%, while 55% agree. This indicates that the majority of professors believe that the reality of technology in distance education enhances the quality of university

education. This is further confirmed by the mean score of 1.2 and the relative weight of 40%, which reflects their agreement with this enhancement. However, there are others who have reservations in this regard, which supports the validity of the second sub-hypothesis: the reality of technology in the distance education system enhances the quality of university education.

#### 11.4 – Presentation of the Results of the Third Sub-Hypothesis:

The reality of interaction and communication in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

This hypothesis was measured using percentages, frequencies, and the weighted relative weight to determine the trend, utilizing the Statistical Package for the Social Sciences (SPSS22), where we obtained the results shown in the following table:

**Table No. (09): Presentation of the Results of the Third Sub-Hypothesis**

Trend	Relative weight %	Mean	Strongly agree	Agree	Disagree	Dimension
			%	%	%	
Agree	34	1.01	21.4	58	20.6	The reality of interaction and communication in distance education and its enhancement of the quality of university education

Based on Table No. (09), it is observed that the percentage of university professors who strongly agree with the reality of interaction and communication in distance education and its enhancement of the quality of university education is 21.4%, while 58% agree. This indicates that the majority of professors believe that the reality of interaction and communication in distance education enhances the quality of university education. This is further confirmed by the mean score of 1.01 and the relative weight of 34%, which reflects their agreement with this enhancement. However, there are others who have reservations in this regard, which supports the validity of the third sub-hypothesis: the reality of interaction and communication in the distance education system enhances the quality of university education.

#### 11.5 – Presentation of the Results of the Fourth Sub-Hypothesis:

The reality of the academic quality of digital content in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

This hypothesis was measured using percentages, frequencies, and the weighted relative weight to determine the trend, utilizing the Statistical Package for the Social Sciences (SPSS22), where we obtained the results shown in the following table:

**Table No. (10): Presentation of the Results of the Fourth Sub-Hypothesis**

Trend	Relative weight %	Mean	Strongly agree	Agree	Disagree	Dimension
			%	%	%	
Agree	35	1.05	21.7	61.1	17.2	The reality of the academic quality of digital content in distance education and its enhancement of the quality of university education

Based on Table No. (10), it is observed that the percentage of university professors who strongly agree with the reality of academic quality in distance education and its enhancement of the quality of university education is 21.7%, while 61.1% agree. This indicates that the majority of professors believe that the reality of academic quality in distance education enhances the quality of university education. This is further confirmed by the mean score of 1.05 and the relative weight of 35%, which reflects their agreement with this enhancement. However, there are others who have reservations in this regard, which supports the validity of the fourth sub-hypothesis: the reality of quality in distance education enhances the quality of university education.

**11.6 – Presentation of the Results of the Fifth Sub-Hypothesis:**

The reality of assessment and monitoring in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

This hypothesis was measured using percentages, frequencies, and the weighted relative weight to determine the trend, utilizing the Statistical Package for the Social Sciences (SPSS22), where we obtained the results shown in the following table:

**Table No. (11): Presentation of the Results of the Fifth Sub-Hypothesis**

Trend	Relative weight %	Mean	Strongly agree	Agree	Disagree	Dimension
			%	%	%	
Agree	37	1.11	24.2	62.2	13.6	The reality of assessment and monitoring in distance education in enhancing the quality of university education

Based on Table No. (11), it is observed that the percentage of university professors who strongly agree with the reality of assessment and monitoring in distance education and its enhancement of the quality of university education is 24.72%, while 62.2% agree. This indicates that the majority of professors believe that the reality of assessment and monitoring in distance education enhances the quality of university education. This is further confirmed by the mean score of 1.11 and the relative weight of 37%, which reflects their agreement with this enhancement. However, there are others who have reservations in this regard, which supports the validity of the fifth sub-hypothesis: the

reality of assessment and monitoring in distance education enhances the quality of university education.

**11.7 – Presentation of the Results of the Sixth Sub-Hypothesis:**

The reality of professional development for faculty members in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

This hypothesis was measured using percentages, frequencies, and the weighted relative weight to determine the trend, utilizing the Statistical Package for the Social Sciences (SPSS22), where we obtained the results shown in the following table:

**Table No. (12): Presentation of the Results of the Sixth Sub-Hypothesis**

Trend	Relative weight %	Mean	Strongly agree	Agree	Disagree	Dimension
			%	%	%	
Agree	36	1.08	21.7	64.5	13.8	The reality of professional development for faculty members in distance education and its enhancement of the quality of university education

Based on Table No. (12), it is observed that the percentage of university professors who strongly agree with the reality of professional development for faculty members in distance education and its enhancement of the quality of university education is 21.7%, while 64.5% agree. This indicates that the majority of professors believe that the reality of professional development for faculty members in distance education enhances the quality of university education. This is further confirmed by the mean score of 1.08 and the relative weight of 36%, which reflects their agreement with this enhancement. However, there are others who have reservations in this regard, which supports the validity of the sixth sub-hypothesis: the reality of professional development for faculty members in distance education enhances the quality of university education.

**11.8 – Presentation of the Results of the Seventh Sub-Hypothesis:**

The reality of administration and oversight in distance education enhances the quality of university education from the perspective of faculty members at the University of Continuing Education in El Oued.

This hypothesis was measured using percentages, frequencies, and the weighted relative weight to determine the trend, utilizing the Statistical Package for the Social Sciences (SPSS22), where we obtained the results shown in the following table:

**Table No. (13): Presentation of the Results of the Seventh Sub-Hypothesis**

Trend	Relative weight %	Mean	Strongly agree	Agree	Disagree	Dimension
			%	%	%	

Disagree	32	0.97	19.5	58.1	22.4	The reality of administration and oversight in distance education and its enhancement of the quality of university education
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Based on Table No. (13), it is observed that the percentage of university professors who strongly agree with the reality of administration and oversight in distance education and its enhancement of the quality of university education is 19.5%, while 58.1% agree. This indicates that the majority of professors believe that the reality of administration and oversight in distance education enhances the quality of university education. This is further confirmed by the mean score of 0.97 and the relative weight of 32%, which reflects their agreement with this enhancement. However, there are others who have reservations in this regard, which supports the validity of the seventh sub-hypothesis: the reality of administration and oversight in distance education enhances the quality of university education.

## 12. Conclusion and Recommendations:

The study concluded that the majority of faculty members at the University of Continuing Education in El Oued acknowledge the role of distance education in enhancing the quality of university education. The results showed overall agreement with the general hypothesis, with an approval rate of 84.4% and a relative weight of 37%. The sub-hypotheses confirmed the importance of factors such as flexibility and accessibility (40%) and technology (40%) as the most prominent quality-enhancing factors. Meanwhile, factors such as interaction and communication (34%) and administration and oversight (32%) recorded lower percentages, indicating challenges in these areas. It is noteworthy that the seventh sub-hypothesis—administration and oversight—showed a negative trend with a relative weight of 32%, reflecting weaknesses in the management of digital systems or oversight of distance educational processes, which calls for urgent institutional intervention.

### Recommendations:

- Enhance technological infrastructure.
- Develop interactive educational platforms that support effective communication between professors and students.
- Provide intensive training for professors on modern digital education tools to improve the quality of academic content.
- Improve the management of distance education systems.
- Design smart monitoring mechanisms, such as electronic exam proctoring systems, to ensure academic integrity.
- Appoint specialized teams to manage educational platforms and provide continuous technical support.
- Strengthen interaction and communication.
- Integrate interactive educational tools such as live discussions and virtual reality to increase student engagement.
- Organize regular virtual workshops to exchange experiences among faculty members.

- Focus on professional development.
- Develop training programs focused on professors' digital skills, such as designing interactive content and managing virtual classrooms.
- Improve the quality of assessment and monitoring.
- Use diverse assessment tools (e.g., group projects, self-evaluation) instead of relying solely on traditional exams.
- Develop data analysis systems such as artificial intelligence to track student progress and provide immediate feedback.
- Address weaknesses in administration and oversight.
- Conduct diagnostic studies to understand the causes of weakness in this dimension and develop evidence-based improvement plans.
- Conduct further studies to explore hidden factors such as organizational culture or infrastructure that may affect the effectiveness of distance education in the Algerian context.

## **Bibliography**

- Al-Rashdi (2009). *The Use of Total Quality Management in Improving the Quality of Educational Service in Yemeni Universities*, University of Algiers 03.
- Al-Ghamdi, Abdullah (2015). *E-Learning and the Challenges of the Digital Age*, Dar Al-Zahraa Publishing, Saudi Arabia.
- Mohamed Ibrahim, Mohamed Mohamed (2016). *Content Validity in Educational Research: Reality and Development*, *The Egyptian Journal of Psychological Studies*, Issue 92, Volume 26, Egypt.
- Maamria, Bachir (2007). *Psychometric Measurement in Social Sciences*, Al-Hibr Publications, Algeria.