

Distance Learning in Moroccan Universities during Confinement Period from the Students' Viewpoint

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Abstract: This study aims to assess the reality of distance learning in Moroccan universities in exceptional circumstances imposed by the COVID-19 pandemic, which forced the Moroccan government to suspend face-to-face study and compensate for it by distance learning for preserving the students' pedagogical continuity. The inclusion of interactive platforms for the benefit of students to ensure pedagogical communication with professors and the monitoring of lessons through them is among the most important decisions in Moroccan universities. However, this teaching style has defined several obstacles and problems, which we have tried to assess through a student opinion survey questionnaire to identify their opinions on the extent to which university distance learning has achieved the objectives set by the Moroccan education system. The importance of the study lies in the fact that the student is the center of the teaching-learning process, which makes knowing his attitudes towards distance education one of the things that must be studied and analyzed. This may enable officials to monitor realistic data and restructure the education system to achieve successful educational outcomes. First, the study concluded that the students encountered material and financial difficulties related to the logistical means and Internet connection, which negatively affected the students' motivation toward distance learning. Then, the study concluded that the digital content available to students was ineffective. Finally, the researchers concluded that the distance learning option could not compensate for face-to-face teaching in Moroccan universities.

Keywords: distance learning, pedagogical continuity, motivation to learn, learning technology, Morocco.

從學生的角度來看，摩洛哥大學在坐月子期間的遠程學習

摘要：本研究旨在評估摩洛哥大學遠程大學學習的現實情況，在與新冠肺炎大流行相關的特殊情況下，迫使摩洛哥政府暫停面對面學習並通過遠程學習進行補償。為了保持學生的教學連續性。摩洛哥大學做出的最重要決定之一是納入互動平台，以使學生受益，以確保與教授進行教學交流並通過他們監控課程。然而，這種教學方式定義了一些障礙和問題，我們試圖通過學生意見調查來評估，通過對大學生樣本的問卷調查來確定他們的意見，關於大學距離的程度。學習已經實現了摩洛哥教育系統設定的目標。這項研究的重要性在於，學生是教學過程的中心，這使得了解他對遠程教育的態度成為必須研究和分析的事情之一。這可能使官員能夠監控現實數據，從而使他們能夠重組教育系統以取得成功的教育成果。該研究得出的結論是，學生遇到了與后勤手段和互聯網連接相關的物質和經濟困難，這對學生進行遠程學習的動機產生了負面影響。然後，該研究得出結論，學生可以使用的數字內容無效。最後，研究得出結論，遠程學習選項無法彌補摩洛哥大學的面對面教學。

关键词：遠程學習，教學連續性，學習動機，學習技術，摩洛哥。

1. Introduction

Moroccan society, like the rest of the world, has not been spared by the Corona pandemic, and the ensuing confusion in public policies, due to its penetration of most social, economic policies, and others. Thus, the fragility of the level of institutional performance in the era of globalization has become evident [1], and even developed countries have not been able to contain the crisis. Due to the delay in the emergence of the vaccine against this virus, politicians unanimously agreed to follow a set of preventive measures, requiring the respect of social distancing and confinement and suspension of all scientific activities, sports, and training.

The suspension of the study in all its phases was among the most important decisions taken in most countries, and Morocco took this decision on March 16, 2020, which forced the Moroccan government to resort to the adoption of the distance education via the Internet in order to preserve learning continuity for students [2]. The decision raised several questions about the success of this experiment in anticipation of the many obstacles it could face.

During this period, universities have tended to adopt distance learning programs through various technological media and electronic platforms to remedy lost courses and ensure the continuity of the educational process as one of the most important pillars of human development [3]. Furthermore, while this mechanism exists in a planned manner in several universities in developed countries, Morocco is still only in the early stages of digital transformation and the adoption of technology in teaching. Therefore, this study will try to determine to what extent students have reacted to the distance learning mechanism adopted in Moroccan universities, in the various university courses and levels, and in all scientific disciplines to remedy and compensate for school attendance after the decision to stop it. Accordingly, we aim in this study to answer the question: Does distance learning contribute to ensuring the continuity of the pedagogical process at the Moroccan University amid Corona pandemic restrictions?

To answer this central question, we decided to ask the following sub-questions, which we seek to answer through research:

1. To what extent did the lack of necessary means, including acceptable Internet speed and the possession of technological devices, motivate students to engage in the distance learning process, and therefore the success of this model during the confinement period?

2. Has distance learning contributed to the effectiveness of the education system? Is it possible to say that distance learning can replace face-to-face learning in Morocco?

2. Methodology

The analytical method, a form of organized scientific analysis and interpretation of a particular phenomenon or problem, has been relied upon to describe it quantitatively by collecting data to subject it to a deep study.

Thus, the electronic questionnaire was used and directed to the study sample represented by a group of university students. It was distributed from the end of September to the end of December 2021. It was designed along four axes. First, the axis of personal data included five questions, it was followed by the axis of means and tools and their impact on student motivation (9 questions), the evaluation of the effectiveness of electronic content used in education (5 questions), and finally, the axis of the degree of acceptance of distance education by students (5 questions).

The questionnaire was distributed on social networking sites and by e-mail to a group of Moroccan students. It was answered by 246 students, and 14 questionnaires were excluded because they did not meet the required conditions, so 232 forms were invested. Therefore, we have adopted the SPSS program to invest the forms and calculate the statistical indicators.

The study included students from five universities (out of 12 Moroccan universities) who accurately understood the reality of distance university education in exceptional circumstances. The results of the survey were as follows:

Table 1 Characteristics of the investigated sample

Gender	Female	47%
	Male	53%
Living environment	Urban	48%
	Semi-urban	21%
	Villager	31%
University	<i>Sidi Mohamed Ben Abdallah</i> in Fez	38%
	<i>Mohamed I</i> in Oujda	24%
	<i>Mohammed V</i> in Rabat	18%
	<i>Ibn Tofail</i> in Kenitra	7%
	<i>Hassan II</i> in Casablanca	13%
Cycle	License	65%
	Master	35%
Specialization	Economics and Management	13%
	Law and political science	21%
	Languages and social sciences	48%
	Life, universe, Physics, chemistry, mathematics, and computer sciences	18%

The study sample of 232 students was divided into 47% of females against 53% of males. The sample was commensurate with the reality of the Moroccan University, in which the proportion of female students represents 49% [4], and in harmony with the general census of the Moroccan population, where the percentage of women in Morocco represents 50.3% [5]. In terms of place of residence, the proportion of urban residents was close to half of the sample (48%), which is normal because this category is the most interactive

with technological means, compared to 21% of those who come from semi-urban areas and 31% from rural areas.

The proportion of students at *Sidi Mohamed Ben Abdellah* University in Fez dominated the sample surveyed by more than a third (38%), followed by *Mohamed I* University in Oujda with a percentage of almost a quarter. (24%), then the *Mohamed V* University in Rabat by almost a fifth of the sample (18%), then the *Hassan II* University for about an eighth of the sample surveyed (13%), and finally the *Ibn Tofail* University with 7%. License students represented 65%, a significant percentage consistent with the reality of university education in Morocco. This cycle represents (91%) of the total of higher education students (system: license masters - doctorate). In terms of specialization, students in law and political science dominate (48%), then students in letters, languages, and social sciences (21%), then students in applied sciences (18%), and finally students in economics and management (13%). These percentages are consistent with the statistics of the reality of university education in Morocco, in which the proportion of students in the streams of legal and economic sciences represents 57%, while the streams of arts, languages, and social sciences represent 29%, and the proportion of science and technology students is 14%.

3. Results and Discussion

In harmony with the problematic and the research questions, we try to discuss the data of this study through three fundamental axes. The first axis focuses on the students' financial and material capacities to keep pace with distance learning in times of pandemic and the impact of these capacities on their motivation to learn. The second axis concerns the effectiveness of digital content and resources and how they achieve the desired objectives to ensure pedagogical continuity. The third axis concerns the extent to which distance education is accepted by students as a new educational culture of learning.

3.1. Possibilities and Technological Means and Their Impact on Student Motivation for Distance Learning

Motivation relates to the student's desire to learn and acquire the abilities and skills envisioned by the educational system, and it is one of the most important determinants of the success or failure of the learning. It takes on a more complex relational dimension in the learning environment; It is linked, on the one hand, to one's own skills, to the methods adopted by the teacher, to the school subject and the class group, and on the other hand, to the means and equipment used for learning [6].

We will confine ourselves here to the second dimension of possibilities and means.

Table 2 Estimates of the surveyed sample about possibilities for distance learning

	Surveyed sample estimates		
	Rarely	Sometimes	Often
Motivational distance learning.	62%	17%	21%
Financial capacity to cover distance learning costs.	35%	52%	52%
Possess sufficient means for distance learning (<i>computer or phone</i>).	10%	18%	18%
Internet availability.	47%	35%	35%
The speed of the Internet is suitable for tracking lectures and downloading documents.	47%	28%	28%
Easy access to digital content of school subjects.	51%	28%	28%
Easy use of distance learning platforms.	29%	41%	41%
Email only to communicate with professors.	11%	15%	15%
Social media applications (<i>WhatsApp, Telegram, Facebook</i>) only to communicate with professors and department groups.	3%	11%	11%

It seems that most students lack the motivation to engage in this type of learning. Therefore, only about a fifth (21%) have the desire, while the majority (62%) lack it most of the time. This result can be explained by the means harnessed in this context.

The data analysis revealed low financial capacities to cover the expenses of this new model for more than a third of the sample (35%) – this mainly concerned spending on Internet subscriptions and the ownership of devices. Therefore, the majority of the sample (almost three-quarters, 72%) confirmed that they did not encounter any problem with having sufficient computers or telephones to use in distance learning. However, most students find it difficult to access the Internet. The percentage of those with sufficient access to this service did not exceed one-fifth of the sample surveyed (18%).

The situation is compounded regarding the appropriate internet speed required for distance learning; about half of the study sample (47%) encountered difficulties in Internet speed, and 28% of them sometimes encountered this difficulty in following their studies with this type of learning.

On the other hand, a quarter of the surveyed sample declared they have a comfortable possibility of obtaining this service. These indicators reveal that possessing technological means and access to the Internet constitutes an obstacle for students to receive distance learning.

When accessing digital content, most students surveyed encounter obstacles in this regard, which is an inevitable result because most students suffer from

difficulties connecting to the Internet. Thus more than half of students surveyed (51%) find it difficult to access digital learning studies and content related to their studies, while around a third (28%) do not encounter any difficulties in this regard.

The results also showed that almost a third of the sample (30%) did not have access to the digital platforms set up by universities for this mode of learning, and almost a third (29%) sometimes encountered these difficulties. This led to the adoption of other mechanisms to communicate with teachers. The results showed that three-quarters of the students surveyed (74%) often communicated continuously with

their professors via email or social media. Moreover, most students (86%) adopted these applications, mainly relying on WhatsApp, Facebook, and Telegram applications, as these are the most important applications used in Moroccan social communication [7]. This finding reveals the low degree of distance education that Morocco has adopted at the university during the pandemic period.

These objective obstacles affect the student's motivation to pursue distance learning. The following results were obtained through the study of correlation and determination coefficients.

Table 3 Correlation and determination coefficients between students' motivation and the possibilities for distance learning

	Motivational distance learning	
	Correlation coefficient R	Determination coefficient R ²
Financial capacity to cover distance learning costs.	0.63	0.4
Possess sufficient means for distance learning (<i>computer or phone</i>).	0.31	0.1
Internet Availability.	0.78	0.61
The speed of the Internet is suitable for tracking lectures and downloading documents.	0.59	0.35
Easy access to digital content of school subjects.	0.35	0.12
Easy use of distance learning platforms.	0.31	0.1
Email only to communicate with professors.	0.28	0.08
Social media applications (<i>WhatsApp, Telegram, Facebook</i>) only to communicate with professors and department groups.	0.28	0.08

We noted a close correlation between the students' desires and motivation for distance learning and their access to the Internet ($r = 78$). This access strongly affected students' motivation for distance learning as 61% (determination coefficient) of the surveyed sample were not motivated for distance learning due to low internet access. Furthermore, students' low financial capacity to cover their learning expenses is significantly related to their desire to pursue this type of learning ($r = 0.63$), meaning that financial capacity negatively affects 40% of the students surveyed to follow the rhythm of their distance studies. Internet speed also affects this motivation in an average way with a percentage of 35%. Other variables (device possession, use of digital platforms, electronic communication) had a weak impact on students' desire and motivation to follow their study activities through distance teaching. This finding reveals the low degree of distance education Morocco has adopted at the university.

Through this analysis, it seems that the lack of advance planning and experience with digitalization and e-learning in Morocco were among the reasons that confused it during the Covid 19 pandemic. This is added to the lack of experience of students and teachers in mastering technological means and integrating them into educational activities. This finding confirms the hypothesis that the success of distance education is associated with the available acceptable Internet speed, the possession of technological devices and the mastery of soft skills, and training in the use of technology in the field of education. Then we can point out that the

weakness of the Internet and the use of computer devices in Morocco have effectively prevented distance learning from replacing traditional face-to-face teaching in universities.

The UN insisted on the redefinition of the right to education in its report on education in the face of Covid-19, including the right to communication, to ensure the continuity of learning, where a great place has been given to educational technologies and digital solutions for learning. The COVID-19 pandemic should be an opportunity to promote equal access to and benefit from technology, facilitate free access to digital educational platforms, and break down communication barriers [8].

Thus, the most important problems encountered during distance learning in Moroccan universities include the absence of a culture of this type of training for students and teachers, the slowness of the Internet, and the disparity in the level of possession of technologies by the students. A significant part of them cannot engage in this educational experience because they do not have the necessary means for distance education, especially the Internet. Limited financial resources or students' residence in geographical areas where it is not easy to obtain a decent speed for learning also hamper distant learning.

3.2. Effectiveness of Content and Digital Resources Used for Distance Learning

We know that the term learning effectiveness refers to the level that shows to what extent the objectives of the education system have been successfully achieved

and if the results achieved the planned objectives. In this context, the distance learning system defines multidimensional objectives, which are difficult to measure with limited means and tools. However, we will try to identify some indicators to measure the opinion of students through which it is possible to assess the effectiveness of the methods and resources that have been mobilized to ensure pedagogical continuity at the Moroccan University during the confinement period.

Table 4 Estimates of the surveyed sample about the effectiveness of content and digital resources used in distance learning

	Surveyed sample estimates		
	Rarely	Sometimes	Often
The digital resources and content made available are sufficient and complete.	85%	10%	5%
The content used for distance learning equals the content obtained in face-to-face learning.	85%	11%	4%
The resources used for distance learning help understand the content of study subjects.	78%	14%	8%
The methods and programs used for distance education help well in understanding the content.	76%	22%	5%
Distance education helps to acquire new skills.	40%	38%	22%

By analyzing the results of the effectiveness of scientific content presented electronically, the results showed, in general, the weakness of this effectiveness and that distance teaching could not compensate for face-to-face learning in universities from the point of view of sample members. Thus, the majority (85%) admitted that the content and resources made available to them, whether through platforms, applications or emails, were not exhaustive of the prescribed subjects and were insufficient to achieve the desired goals. Also, most of these students (85%) believe that the content used in distance learning is not equal to the content obtained face-to-face.

Furthermore, 78% oppose the idea that the content used for distance learning helps understand the content of the subjects well. This result can be attributed to the methods and pedagogies used by the teaching staff. At the same time, 76% expressed that methods and pedagogies used in this type of teaching did not help to understand the lessons and study activities simply and clearly. However, it was noted that almost a third of these students (22%) felt that this teaching style helped them learn additional skills, which explains why the students made special efforts, particularly in the use of communication technologies, to obtain the scientific subject.

Thus, the resources and content made available to students through the distance learning system could not replace the face-to-face learning content at Moroccan

University. Moreover, the teaching methods adopted during this period did not contribute effectively to the assimilation and comprehension of the courses by the students.

3.3. The Extent to which the Distance Learning Process is Acceptable to Students

We measured a set of indicators to assess how well students accepted the remote learning process. It is linked to the extent to which questions can be asked and answered, the student-professor coordination concerning academic content, the possibility of adopting distance examinations to assess academic learning or to conduct them face-to-face with the cancellation of courses that were taken remotely, and assessing the issue of distance teaching accreditation even after the pandemic.

Table 5 Estimates of the surveyed sample on their acceptance of distance learning

	Surveyed sample estimates		
	Rarely	Sometimes	Often
The possibility of asking questions and easily answering by the teachers.	38%	40%	22%
Full coordination between the student and the professors regarding the academic contents.	60%	24%	16%
Distance exams are a way to assess learning.	67%	30%	3%
Support the idea of canceling the lessons covered by distance learning in the exam.	3%	4%	93%
Support the idea of distance learning even after the pandemic.	89%	9%	2%

The results show that the sample does not prefer this experience and tends toward face-to-face teaching. More than a third of them (38%) expressed the absence or weak interaction between students and their teachers regarding questions and answers. Thus, they could not ask academic questions and receive answers easily, while 40% believed this process was done only occasionally. In addition, 60% also confirmed the lack or weakness of student-teacher coordination regarding the content of the subjects under study, and almost a quarter (24%) believed that teachers only sometimes coordinated with their students on the educational content of the subject.

In this context, two-thirds of the sample (67%) prefer that the exams take place face-to-face, and they do not favor taking them remotely so that the same problems and difficulties do not recur during the exam session. Most students surveyed (93%) also confirm the cancellation of approved courses during the distance learning period; This confirms the lack of understanding of its content due to the difficulties and obstacles encountered.

This idea agrees with the opinion of the majority of

students surveyed (89%), who do not support the idea of adopting distance learning even after the Corona pandemic. Nevertheless, this can be explained by other factors, including psychological factors related to the effects of the pandemic, the difficulty of accepting change, and the continuation of the study face-to-face to which they are accustomed, and that distance learning has not achieved pedagogical continuity for them.

4. Conclusion and Recommendations

This study attempted to determine the extent of the success of distance learning applied in the necessity of adapting to the restrictions of the Corona pandemic, as this pandemic revealed the inevitability of digital transformation of universities and the need to support the use of technology in the teaching process.

The level of progress in academic courses declined, and some core learning activities, such as practical work and field training, were disrupted). However, despite these negative effects caused by the pandemic on university education, it was an opportunity to advance the development of Moroccan universities, shift towards the use of distance learning technology in storing knowledge and exchange between professors and students, and adopt new methods and pedagogies adapted to the nature of this type of teaching. It also allowed Moroccan universities to reveal the gaps and deficiencies that always make it at the bottom of the international rankings list.

Thus, distance learning is among the most important mechanisms that enable the development and reform of higher education in Morocco through integrating information and communication technology and developing an e-learning strategy to link people with knowledge and technology.

It was found through this study that distance teaching, as applied by Moroccan universities during the period of confinement due to the Corona pandemic, was not able to achieve the desired pedagogical continuity for university learning. Moreover, its contribution was weak in compensating for attendance education. This finding reveals the imbalances in the application of the distance learning policy, especially since it was imposed by the emergency conditions of Covid-19 and was not a sufficiently planned policy in a manner that ensures the integration of all parties, teachers, administration, students, and the telecommunications sector in this process.

Through this study, the following results were obtained:

- ✓ The distance teaching system represents an important way to achieve the continuity of learning in universities during emergencies and crises such as the Corona pandemic through its ability to provide a safe environment for learning.
- ✓ The study revealed the digital divide and inequality between students in access to technology,

especially the Internet. Therefore, work must be done to eliminate barriers by investing in network connectivity for all students, reducing their fees, facilitating free access to university digital platforms, and removing communication barriers.

✓ The process of engaging in distance education requires changing the general culture of students and teachers, who believe that face-to-face education is the successful option. This requires a high degree of digital transformation to create the requirements of the distance education environment.

✓ Directing professors' training in the teaching field using communication technology and developing curricula and teaching methods in line with the requirements of distance learning.

To benefit from successful experiences in distance learning amid the Corona pandemic crisis, it is necessary to think about some future plans and strategies within a proactive vision that is compatible with the successive developments in the technological fields, the availability of ways and means of communication, the introduction of artificial intelligence in educational systems, and the expansion of distance learning even in normal circumstances, and innovating new solutions to enable all age groups to learn by providing global learning platforms open in all languages and for all educational phases, and developing educational content in accordance with continuous developments and transformations.

Through the results, the research recommends the following:

- Consolidating a culture of change within the Moroccan University to keep pace with the technological developments that the world is experiencing.
- Providing information and Internet devices to all students.
- Organizing training courses and pedagogical workshops for students on the use of distance learning.
- Training university professors in the use of distance learning programs and platforms.
- Developing plans in advance by the university administration to follow them when implementing distance learning.
- Providing the technical tools and resources necessary to implement distance education in universities.
- Conducting more studies on different areas of distance education.

5. Limitations of the Study

The study had the following limitations:

✓ *Human limitations:* Students' opinions were surveyed only without other actors in the field of distance education (teachers, parents, civil and political society, communication companies).

Spatial boundaries: five universities out of 12

Moroccan universities as an option imposed by the Moroccan universities.

- ✓ *Timeframe*: The academic year 2021/2022.
- ✓ *Objective limits*: The reality of distance learning was represented from the students' point of view in the following areas: the area of means and technologies and their relation to students' motivation, the effectiveness of the electronic content provided to students, and the extent to which students accept this type of learning, considering that there are other aspects that can be measured.

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