

Distance learning during COVID-19 pandemic: A study of Moroccan university students

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Article Info

Article history:

Received Dec 4, 2021

Revised Nov 10, 2022

Accepted Nov 26, 2022

Keywords:

COVID-19
Distance learning
E-readiness
Perceived barriers
Satisfaction

ABSTRACT

Because of COVID-19, distance learning was adopted by the majority of educational institutions as a strategy to ensure the continuity of education. In Morocco, forcing students to change their traditional learning methods has put them through an unprecedented learning experience. This study aims at investigating Moroccan university students of English experiences with distance learning during the pandemic in terms of readiness, satisfaction and perceived barriers. To achieve the objectives of the study, the researchers relied on an exploratory descriptive approach through a self-developed online questionnaire involving 138 respondents. The results indicate that students' readiness to engage in distance learning was found to be at a moderate level. Additionally, the participants reported a low level of satisfaction with their experience of distance learning during COVID-19 pandemic. Thus, they preferred face-to-face learning over distance learning. Lack of previous experience with distance learning, lack of needed technology and inadequate internet connection were found to be among the major barriers to distance learning during the pandemic. Furthermore, the respondents expressed concerns on issues related to motivation, interaction and lack of technical skills. The findings of this study were discussed and compared to the findings of other related studies.

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1. INTRODUCTION

Actually, COVID-19 has left billions of people around the world with no other choice but to resort to distance learning as a way of guaranteeing the continuity of the educational process. However, the technical and pedagogical preparedness to engage in distance learning, as well as the familiarity with this method of study vary from one country to another. While some countries are ready to engage in distance learning, others are still struggling in an attempt to effectively carry out the teaching and learning process during an exceptional period.

Morocco was also affected by the outbreak of the pandemic. Consequently, the government started implementing various "coronian" measures as a major strategy to face the crisis. Starting from 16 March 2020, which coincided with the beginning of the second semester of the academic year 2019/2020, all educational institutions in Morocco were closed until further notice. Consequently, distance learning was adopted as a second option that could replace face-to-face approach of delivery. According to Fogerson [1], distance learning refers to internet-based courses that teachers offer to their students wherever they are. Actually, the concept of

distance learning is not new, it can be traced back to the early 18th century and it continues its evolution and progress in parallel with the development of communications technology [2]. However, with the outbreak of COVID-19, distance learning gained more attention as a major strategy to ensure the continuity of education.

Actually, even before the pandemic hit, distance learning was gaining too much attention, this is mainly because of the undoubted advantages of this method of learning [3]. These include flexibility [4], interactivity [5], better information accessibility [6], promoting critical thinking and problem solving skills [7]. On the other hand, several studies have identified the disadvantages of distance learning. For instance, O'Lawrence [8] stated that the lack of immediate contact and the absence of classmates increase the chance of students getting distracted and losing track. This is mainly because teachers are unable to interpret students' facial expressions and therefore immediately react to their signs of inattention.

Another weakness of distance learning is the obligation of having frequent access to different information and communications technology (ICT) tools. The lack of access to ICT tools contributes to creating a new social divide. This is mainly because those students who are less advantaged may be deprived from the learning opportunities associated with distance education compared to those who are fortunate enough to gain access [7]. Regardless of the advantages and disadvantages associated with distance learning, students must be ready to engage in this learning experience if the expected outcomes are to be achieved [9]. Pertaining to this, many researchers recommended assessing students' readiness to distance learning before starting a particular course [10]. Readiness to engage in distance learning refers to the capacity to follow up the opportunities that help facilitate the use of e-resources and therefore benefit from different online experiences and actions [11].

Actually, readiness for online learning was considered from different perspectives by various research studies. Furthermore, different instruments that aim at assessing students' online learning readiness were developed. For instance, Caliskan *et al.* [12] conducted a research study to investigate university students' readiness for e-learning. The instrument used in this study included several items which are computer self-efficacy, internet self-efficacy, online communication self-efficacy and self learning. Similarly, Yu and Richardson's [10] study aimed at developing an instrument to measure students' readiness for online learning. The questionnaire used a total of 21 items related to three main competencies: social, communication and technical competencies. To be more specific, the instrument used in the current study aims at measuring students' readiness to engage in distance learning using a number of items which has to do with students' access to technology, technical skills, self-learning skills and interaction with teachers and classmates.

Throughout the literature, research studies acknowledged the fact that students' readiness to engage in distance learning is closely related to other variables. For instance, Fogerson [1] stated that when students' level of readiness to engage in distance learning is high, their satisfaction with the learning experience is high as well. Wickersham and McGee [13] defined satisfaction with distance learning as interactivity, technological and technical support, flexibility, motivation and discussion that should be provided to students during the learning experience to feel comfortable and pleased. Several research studies examined the relationship between students' readiness and their satisfaction with distance learning. For instance, Kirizmi [14] conducted a study to measure the impact of students' readiness on their satisfaction and success in distance education. The study found that all the sub-dimensions of learner readiness correlate in a significant way with satisfaction and success. Similarly, Yilmaz [15] found that all the factors that affect students' satisfaction and motivation are closely related to their readiness to engage in distance learning. The study involved 236 undergraduate students and found that computer self-efficacy, internet self-efficacy, online communication self-efficacy, self directed learning, learner control and motivation towards e-learning are major factors that affect students' satisfaction with distance learning. While the studies described above in addition to other studies tried to find the connection between students' readiness for distance learning and their satisfaction with the learning experience, others focused on the barriers and problems that learners encounter when deciding to engage in distance learning. These problems could be categorized into several distinct types: costs and motivators [16], contact with the teacher and getting feedback [17], lack of academic and technical skills and lack of previous experience with distance learning [4] and psychological problems such as alienation and isolation [18].

Regardless of the different problems or barriers that may be associated with the implementation of distance learning, it has become unavoidable in different countries. In Morocco, for instance, the importance of ICT use in education and the promotion of distance learning has begun since 1999 when the National Charter of Education and Training was launched [19]. More specifically, article 10 of the Charter focused on supporting the acquisition of different ICT facilities at educational institutions and the promotion of distance learning [19]. The Charter has accelerated the implementation of different ICT projects and initiatives. However, face-to-face

learning is still adopted by 73% of Moroccan institutions and about 18% of them rely on combining face-to-face learning with distance learning [20]. This implies that a number of obstacles are still inhibiting the development of distance learning in Morocco. Within the context of COVID-19 pandemic, Moroccan university students were obliged, even if unprepared, to change their traditional methods of learning and engage in a totally new learning experience. Therefore, it seems necessary to address issues related to students' level of acceptance, engagement and satisfaction with such an unprecedented learning experience that imposed itself overnight.

There were several questions raised through different types of media concerning the ability of distance learning to cater for students' learning needs and expectations; especially that the overall image was still hazy and indefinite. In response to this, several research studies were conducted; however, the majority of research that was conducted in this respect focused mainly on assessing the implementation of distance learning from the perspective of teachers [21], while other research focused on assessing the readiness of Moroccan institutions to adapt to distance learning during the pandemic [22]. The aim of this research paper is to investigate the experiences of Moroccan undergraduate students of English with distance learning in terms of readiness, satisfaction and perceived barriers. Therefore, the current paper addresses three main research questions: i) To what extent were Moroccan university students of English ready to engage in distance learning during COVID-19 quarantine?; ii) Are Moroccan university students of English satisfied with the experience of distance learning during COVID-19 quarantine?; iii) What are the perceptions of Moroccan university students of English concerning the barriers to distance learning during COVID-19 quarantine?. The results of this research paper will provide valuable data on the effective implementation of distance learning based on students' perspectives.

2. RESEARCH METHOD

This study was designed as a quantitative case study with the aim of investigating attitudes towards distance learning amidst the pandemic in terms of readiness, satisfaction and perceived barriers among Moroccan students of English at the university of Sidi Mohamed Ben Abdellah, Dhar-El Mehraz, Fez (USMBA). The target population of the current study is composed of undergraduate students of English at USMBA. The sample of the study was then selected from the population as a convenience sample. 138 undergraduate students were involved in this research study. Among the total sample, 44% were males and 56% were females; 38% of the respondents were first year students, 33% of them were second year students and 29% of them were third year students. The average age of the participants was 21 years old. For the purpose of this study, the researchers relied on a self-developed questionnaire based on a careful review of literature on students' experiences with distance learning [15], [23], [24]. The questionnaire used in the current study consists of four sections with a total of 21 closed-ended questions. The first section dealt with the respondents' demographics. Section two had to do with students' readiness to engage in distance learning during quarantine. Section three was meant to investigate students' satisfaction with distance learning during quarantine. The fourth section aimed at exploring students' perceived barriers to distance learning. The questionnaire included a 5-point Likert scale (strongly disagree, disagree, neutral, agree and strongly agree). The items included in the questionnaire were reviewed by three university professors with expertise in distance learning and teaching to ensure its validity. The questionnaire was reviewed for relevance, clarity and conciseness and it was revised based on the comments and suggestions provided. The reliability of the study's instrument was verified through calculating the coefficient score of Cronbach Alpha. The results indicated that the Cronbach's Alpha value exceeded 0.70. The latter indicates an acceptable and good reliability value [25], [26].

As mentioned earlier, the data was collected using a questionnaire with a Likert scale of one to five. In order to summarize the data and provide a simple interpretation of the respondents level of readiness, satisfaction and agreement concerning perceived barriers to distance learning during COVID-19 times, the researchers divided the levels into three: low, moderate, and high [26]. The intervals used to determine the level of the means associated with the respondents answers are presented in Table 1. Data gathering procedure was done through Google Forms. Thus, the link to the online questionnaire was sent to the students through two online groups. The first group is a WhatsApp group and the second one is a Facebook group, the two groups were created by two professors teaching at USMBA with the aim of keeping in touch with their students during COVID-19 lockdown. To answer the questions of this research paper, a descriptive statistical method was used. Thus, the mean value and standard deviation value were extracted from the respondents' responses to the items of the study instrument. Statistical analysis was performed using SPSS.

Table 1. The scale determining the suitability level of the mean

Scale value	Response level
1.00-2.33	Low
2.34-3.66	Moderate
3.67-5.00	High

3. RESULTS AND DISCUSSION

3.1. Students readiness to distance learning during COVID-19 pandemic

The first question in this study aimed at investigating the respondents' readiness to engage in distance learning during quarantine through a six-statement survey. The results presented in Table 2 indicate that all the items included in this part of the questionnaire are at a moderate level between the mean score of 2.39 and 3.30. The item "During quarantine, I was equipped with the necessary self-learning skills" came in the first place with an arithmetic mean of 3.30 and a standard deviation of 1.218. Second was the item "During Quarantine, I was ready to virtually interact and communicate with my teachers and classmates" with an arithmetic mean of 3.01 and a standard deviation of 1.247. The next-to-last place was for the item "During Quarantine, I was ready to use the different online learning platforms and software" with an arithmetic mean of 2.78 and a standard deviation of 1.36. Last was the item "During Quarantine, I was equipped with the necessary computing devices and internet connection" with an arithmetic mean of 2.39 and a standard deviation of 1.007. In short, the respondents reported a moderate level of readiness to engage in distance learning during COVID-19 times. This implies that a number of difficulties and challenges are still hindering students' preparedness for the adoption of distance learning.

Due to the unexpected shift to distance education that was adopted in all Moroccan universities during the pandemic, most students found themselves in a totally new learning environment which requires a number of technical and pedagogical skills. The lack of such skills was found to be a major factor that affects students' readiness to engage in distance learning [27]. In the current research paper, limited ICT accessibility and connectivity and lack of digital literacy and proficiency to use online learning tools have been identified as major issues that affect learners' readiness to engage in distance learning during COVID-19 pandemic. Thus, the respondents reported a moderate level of readiness to engage in this learning experience. This finding is in accordance with the findings of other research studies that investigated students' readiness to take part in distance learning within the context of the pandemic [23], [28]. Similarly, when other literature dealing with students' readiness to engage in distance learning during the pandemic was searched, different conclusions were drawn.

For instance, the study of Doghonadze *et al.* [29] which was conducted in six countries: Azerbaijan, Georgia, Iraq, Nigeria, UK, and Ukraine revealed that different degrees of readiness were found depending on each country's schools or universities and also depending on the respondents' cultural and personal characteristics. However, the study concluded that the described countries are far from being ready to carry out distance learning in an efficient way, except for the UK where the respondents' level of readiness was found to be high. For Rasouli *et al.* [30], familiarizing students with the concept of e-learning, its advantages and disadvantages, teaching them the internet and computer skills and studying students learning styles and adapting them to the requirements of the e-learning environment are among the approaches that lead to success in implementing this system.

Table 2. The respondents readiness to distance learning during quarantine

Statement (During quarantine, I was ...)	Mean	Std. Deviation
1 Ready to engage in distance learning.	2.89	1.30
2 Ready to use the different online learning platforms and software (e.g. Zoom and Google Meet).	2.78	1.36
3 Ready to virtually interact and communicate with my teachers and classmates	3.01	1.247
4 Ready to use different emerging technologies.	2.93	1.227
5 Equipped with the necessary self-learning skills.	3.30	1.218
6 Equipped with the necessary computing devices and internet connection.	2.39	1.007

3.2. Students satisfaction with distance learning during COVID-19 pandemic

The second question that the present study aimed at answering has to do with students' satisfaction with distance learning during COVID-19 pandemic. The results related to each item in this part of the questionnaire are shown in Table 3. There are five items at a low level between the mean score of 1.86 and 2.31.

The respondents' low level of satisfaction with distance learning during the pandemic has indirectly affected their decision to continue with this mode of learning. Thus, face-to-face learning was favored by most of the respondents and most of them reported that if given a choice they would not enroll in an online course next semester. This statement refers to items 4 and 5. Actually, the respondents' low level of satisfaction with distance learning during COVID-19 times could be attributed to a number of reasons.

First, students of English at USMBA are new to distance learning and had no prior experience with virtual learning environments. Second, distance learning was suddenly implemented without previous preparation or training in a particular period which was characterized by the outbreak of deadly coronavirus disease. Third, students experienced various technical, psychological and pedagogical obstacles during COVID-19 quarantine [31]. All these reasons, among others, contributed to negatively impacting students' satisfaction with distance learning during the pandemic. Prior research revealed that satisfaction plays a major role in affecting students' desire to go on with distance learning in the future [32]. Thus, increasing students' satisfaction is highly recommended if students are to proceed with distance learning [33].

During the pandemic, online interaction was also raised as a topic of debate since it is considered as a major determinant of students' satisfaction with the learning experience [34]. The respondents in the present research study disagreed that they could easily communicate with their teachers and classmates during distance learning. This could be justified by the urgent switch into this new teaching and learning modality where time for preparation and training was not available. Thus, developing an online communication strategy should be among the major priorities of higher education institutions in the future [35]. Additionally, Discussion boards, live chats, emails and other types of technology tools should become the new normal within educational institutions to ensure a successful implementation of distance education [36]. The lack of teacher-student interaction in the online learning environment may increase students' feelings of remoteness and isolation and consequently reduces their motivation to learn [18]. Previous research revealed that motivation plays a very important role in increasing students' satisfaction with online courses [37]. The current research study showed that a large number of the respondents did not feel motivated during distance learning. This result is in line with the results of Means and Neisler [38] and Chung *et al.* [23]. Pertaining to this, Baber [35] concluded that the issue of students' motivation should not be overlooked since it is a major determinant of students' satisfaction with online courses.

Table 3. The respondents satisfaction with distance learning during COVID-19 pandemic

Statement	Mean	Std. Deviation
1 I am satisfied with distance learning.	1.86	0.730
2 I feel motivated during distance learning.	2.29	1.041
3 I can easily communicate with my teachers and classmates during distance learning.	2.25	1.119
4 If I had the choice, I would enroll in an online course next semester.	2.31	1.158
5 I prefer to study online more than studying on campus.	2.28	1.202

3.3. Perceived barriers to distance learning during COVID-19 pandemic

The third question in this study aimed at investigating the respondents perceived barriers to distance education during the pandemic. Overall, the respondents high level of agreement with the items presented in Table 4 shows that they are facing different obstacles while engaging in distance learning. Of the 10 statements presented in Table 4, the following have been rated by the majority of the respondents as major barriers: lack of previous experience with distance learning with an arithmetic mean of 4.58 and a standard deviation of 0.919, lack of needed technology with an arithmetic mean of 4.57 and a standard deviation of 0.879, inadequate internet connection with an arithmetic mean of 4.45 and a standard deviation of 1.203 and lack of motivation with an arithmetic mean of 4.33 and a standard deviation of 1.134

The majority of Moroccan undergraduate university students of English who participated in the current research study had reservations about distance learning. Thus, issues related to interaction, motivation and lack of previous experience with distance learning were among the major challenges faced by the respondents. Actually, this is not specific to Moroccan students since different research studies that were conducted during the pandemic revealed that students in different countries were faced with more or less similar challenges [39], [24]. Another troublesome issue that arose during the pandemic as a major hindrance to distance learning is mainly related to ICT accessibility and connectivity. This finding corroborates the results of Oulmaati *et al.* [40] that there is still a digital divide regarding access to ICT tools among Moroccan university students. The implication here is that stakeholders in higher education should make more efforts to provide Moroccan under

graduate students with adequate access to ICT resources and internet connectivity. During the pandemic, students were also faced with psychological problems caused by the isolation period which had negative effects on students in different countries [41], [42]. Thus, maintaining the mental health of students during periods of health crises and pandemics through providing appropriate counseling services by the university is highly recommended [43]. Similarly, problems related to time management and difficulty to focus for long periods of time were found to be the main barriers mentioned by university students during the pandemic in another research paper [44]. This finding is very much parallel with the finding of this study. This implies that training students on time management skills is highly recommended. Finally, the current study highlighted the limited digital skills of the respondents, an issue that needs to be addressed urgently so as to improve students' digital knowledge and skills. In this respect, Adnan and Anwar [39] stated that an effective and productive online course requires training students on how to deal with fast-paced online classes and helping them develop appropriate technological skills to learn from the online lecture.

Table 4. The respondents perceived barriers to distance learning during COVID-19 pandemic

	Statement	Mean	Std. Deviation
1	Inadequate internet connection.	4.45	1.203
2	High cost of internet connection.	4.17	1.206
3	Lack of technical skills.	4.23	1.109
4	Lack of motivation.	4.33	1.134
5	Psychological problems caused by quarantine (e.g. depression).	4.10	1.062
6	Lack of interaction with teachers and classmates.	4.01	1.014
7	Lack of needed technology (computers and smartphones).	4.57	0.879
8	Interruptions at home while studying.	3.70	1.218
9	More time and efforts are needed.	4.05	1.028
10	Lack of previous experience with distance learning.	4.58	0.919

4. CONCLUSION

In line with the objectives of this study, several conclusions could be drawn. First, the respondents were moderately ready to engage in distance learning amidst the pandemic. The majority of the respondents reported that they lacked the technical and pedagogical skills as well as the necessary computing devices to effectively engage in distance learning. Second, the participants reported a low level of satisfaction with their experience of distance learning during COVID-19 pandemic. Third, a number of barriers prevented an effective implementation of distance learning during the pandemic.

The findings of the present study suggest that higher education stakeholders should establish comprehensive strategies to prepare students to effectively engage in distance learning. Examples of such strategies may include the following: i) The government should make more efforts through launching more ICT projects to make ICT resources, such as laptops and tablets, accessible to all Moroccan students; ii) Universities should hold negotiations with Moroccan telecommunications operators so as to allow students to have access to adequate internet connection facilities at advantageous prices; iii) Training students on the use of the different technology-based learning tools through hiring educational technology specialists who will assume this responsibility; iv) Introducing students to distance learning gradually and smoothly through teaching part of the educational content using online education systems; v) Developing an online communication strategy that encourages synchronous and asynchronous teacher-student and student-student interaction either through virtual platforms and emails or other types of technology tools; vi) Involving professional psychologists to assess and treat psychological disorders that distance students may suffer from, particularly during difficult times.

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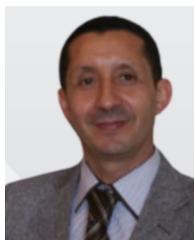
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