

“Distance learning in Moroccan higher Education during COVID19: Sidi Mohammed Ben Abdellah’s University as a Case Study”

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Abstract:

The outbreak of the Covid-19 pandemic marked by the widespread lockdown and social distancing measures has disrupted various aspects of most people’s daily life; one of the areas significantly impacted is education.

This study focuses on Sidi Mohammed ben Abdellah Students' perspective on distance learning during covid-19 pandemic. Moroccan Higher Education and the manner in which Moroccan University students responded to distance learning during the COVID-19 crisis. This study is an exploratory investigation designed to identify both the advantages and disadvantages of distance learning. It also highlights the challenges and difficulties facing students that hamper the progress of the learning process. This research is crucial for understanding the impact on distance learning in Morocco to improve its practices and finally, ensuring checking whether it is efficiency and aligned to the needs of learners.

This paper addresses numerous issues surrounding distance learning and offers insights on post-pandemic Higher Education. It also examines the validity of whether distance learning imposes obstacles related to information access, and highlights the shortcomings of the Moroccan educational system and lack of technical preparedness. This study deploys a quantitative, statistical approach and uses several statistical tools and methods using a survey that aims at identifying and evaluating students’ outlook on distance learning in this unprecedented experience through answering a series of multiple choice questions and open-ended questions.

Finally, the findings show that despite the contribution of distance learning in the continuity of education, aspects of communication are almost non-existent between the majority of the instructors and their students. Therefore, most of students prefer Blended classes, as it is a homogeneous way of learning composed of both in person and virtual classes.

Keywords :Distance learning, Higher education, Moroccan University Students, COVID-19, Technological challenges.

ملخص البحث باللغة العربية

تأثرت حياة معظم الأشخاص يوميًا بانتشار جائحة كوفيد-19 والإجراءات الاحترازية المتبعة مثل الإغلاق الشامل والتباعد الاجتماعي. وقد أثرت هذه الإجراءات بشكل كبير على مختلف جوانب الحياة، بما في ذلك المجال التعليمي. تركز الدراسة التي أجريت في جامعة سيدي محمد بن عبد الله على تجربة الطلاب في التعلم عن بُعد خلال جائحة كوفيد-19، وتناولت استجابة الطلاب الجامعيين في المغرب لهذه التجربة. الغرض من هذه الدراسة هو استكشاف مزايا وعيوب التعلم عن بُعد وتسلط الضوء على التحديات والصعوبات التي تواجه الطلاب وتعوق عملية التعلم، وذلك بهدف تحسين ممارسات التعلم عن بُعد في المغرب وضمان فعاليتها ومواءمتها مع احتياجات المتعلمين.

تتناول الورقة العديد من القضايا المتعلقة بالتعلم عن بُعد وتقدم رؤى حول التعليم العالي بعد الجائحة، وتدرس مدى صحة التعلم عن بُعد كوسيلة للوصول إلى المعلومات، مع التركيز على نقائص النظام التعليمي المغربي ونقص الاستعداد التقني. تعتمد الدراسة منهجًا كمياً إحصائياً وتستخدم أدوات وطرق إحصائية متعددة لتقييم توجهات الطلاب نحو التعلم عن بُعد، وذلك من خلال استطلاع يهدف إلى تحديد وتقييم هذه التجربة الفريدة من نوعها.

تظهر النتائج أن التعلم عن بُعد مساهم في استمرارية التعليم، ولكن جوانب التواصل تظل هامشية بين معظم المحاضرين وطلابهم، مما يجعل الطلاب يفضلون الفصول المدمجة كطريقة متجانسة.

الكلمات المفتاحية: التعلم عن بُعد، التعليم العالي، طلاب الجامعات المغربية، كوفيد-19، التحديات التكنولوجية.

Introduction

Education and technology have become integral components shaping the contemporary standard of living. There is a growing global emphasis on their advancement, highlighting the significant impact of technological innovations on education and pedagogy. That is to say the methods through which information, knowledge, and culture are conveyed (Tawalbeh, 2001).

Moreover, the development that the field of education is undergoing in the age of knowledge, information and technology requires massive improvements in teaching methods and approaches, and techniques to match with the speed through which the flow of information is transferring. On the one hand, this development opened up new horizons for the field of education in terms of available means, capabilities and new technologies used. As well as in advanced and modern educational contents. However, is it only through the correct exploitation of these methods, continuous efforts and a wide range of - not their random use - that such quality of technology based education can be guaranteed. Thus, this outcome involves a combination of factors, strategies, as well as continuous efforts.

In light of these prominent trends in the educational sector, distance learning is one of the manifestations of innovation and educational development since it relies on the optimal use of means of communication and information in transferring knowledge and achieving goals. In addition to being a

system that offers a great deal of freedom of choice for the learner who can control where, when and how the learning process can take place, distance learning is characterized by flexibility and the ability to cope with the requirements, needs and skills that are developed constantly. The thing that prompted many educational institutions in many countries, including universities to promote innovations and to make fundamental amendments to their system by adopting distance learning, especially with the increasing number of enrollees that sometimes exceeds the institution's capacities. Nevertheless, the incorporation of distance learning for so many countries can be described as 'unprecedented' and 'unexpected'.

I. The statement of the Problem:

Educational attainment serves as a cornerstone for societal advancement and individual development. It is a powerful agent of change; one that reflects on a country's development and readiness to deal with the continual changes and demands of the global world. Education stands as a potent catalyst for change, serving as a barometer for a nation's development and its preparedness to navigate the ongoing shifts and challenges of the global arena. Nevertheless, numerous recent global crises have adversely affected the efficacy and standards of educational institutions, impeding them from fulfilling their duties and attaining their objectives.

The aftermath of the coronavirus pandemic have exacerbated the situation, causing various negative effects on learners. This crisis has laid bare the inadequacies, disparities, and inconveniences embedded within our education system. Despite universities implementing alternative measures such as distance learning or emergency remote learning, they continue to grapple with significant challenges and obstacles. Hence, this study endeavors to explore the attitudes and perceptions of students at Sidi Mohammed Ben Abdellah University in Fez concerning their experience with distance learning. Additionally, it seeks to analyze the challenges and opportunities encountered by these students amidst the unprecedented learning circumstances.

1. The Importance of the Study:

- i. This study sheds light on the responses of Moroccan students to the measures implemented by authorities to ensure the continuity of studies during the Covid-19 period.
- ii. It critically assesses the perspectives of Moroccan university students on online learning, providing valuable insights into the efficacy of this mode of education.
- iii. Furthermore, the study contributes significantly to the scholarly discourse by emphasizing the centrality of its topic. Its findings serve as a guide for scholars and researchers, directing attention to the critical aspects of science education and distance learning.
- iv. Finally, the study holds practical significance by offering insights that may assist universities in managing future educational crises, emphasizing the importance of enhancing science education and expanding the literature on distance learning

2. The Objectives of the Study:

- i. Establish a comprehensive theoretical framework delineating the essence and principles of distance learning.
- ii. Shed light on and assess the perspectives of Moroccan university students regarding their experiences with distance learning during the quarantine period.
- iii. Identify and analyze the obstacles impeding the realization of desired goals in distance learning amid the lockdown.

3. Study Limitations:

Objective Limitations: The study is confined to examining the challenges and opportunities associated with distance learning.

Spatial Limitations: The geographical scope of the study is limited to Sidi Mohammed Ben Abdellah University."

Time Limitations: The study was conducted within a specific timeframe, from April 25th to September 20th, 2020."

Human Limitations: The study involves a participant pool of 318 male and female students from Sidi Mohammed Ben Abdellah University.

II. Review of the Literature

1. Definitions of Concept:

With the rise of information and communication technology, the concept of distance learning is constantly changing and thus, the meaning is not universal. As Phipps & Merisotis (1999, p. 11) stated, "It is important to understand what is meant by 'distance learning.' Because the technology is evolving, the definition of what distance learning is continues to change" From this, we deduce that with each rising knowledge, definitions of concepts change. Therefore, meaning is dynamically constructed and constantly changing.

According to Holmberg, the term 'distance education' covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless, benefit from the planning, guidance and tuition of a tutorial organization (Holmberg, 1977). Furthermore, Abu Qasim, (2021) determines distance learning as other than educational and electronic media such as satellites, videotapes, audiotapes, computers, multimedia technology, or any other means accessible to transmit information.

Taking into account the multiple perspectives and synthesizing the aforementioned points, this study looks at distance learning as a field of study that uses technology as a mediator between the teacher and the learner facilitating the learning process by freeing them from the constraints of time and space. Since definitions of the concept of distance learning are numerous and overlap with each other, most of them are based on the ground of (i) The prevailing separation between the educator and the student, and (ii) the diversity of methodologies employed in the instructional process. In addition to this, distance learning offers a great number of benefits, which includes not only the ability to overcome the temporal

and spatial restrictions of traditional educational setting, but also minimizes the cost of learning (Bates, 2005).

The literature review shows the significance of distance learning as a new mode of teaching that can not only facilitate the learning process but also manages to boost the learner's skills and intellect. Distance learning is an "innovative approach to education delivery via electronic forms of information that enhance the learner's knowledge, skills, or other performance" (Siritongthaworn et al., 2006, p. 137).

2.2 Distance learning principles and characteristics:

Every educational system is structured by a set of philosophical determinants and principles that influence its components. In this context, the philosophy underlying distance learning is rooted in the entitlement to learning and teaching in accordance with societal values and principles. It also aligns with a humanistic and civilized identity, taking into consideration the individualistic variances among learners by ensuring the provision of essential learning materials to every institutional facility and catering to the unique needs of each individual. Consequently, distance learning is founded on the individualization of education and the promotion of independence in utilizing and harnessing various intelligences, which are primarily grounded in the following principles and characteristics:

Technology integration: Distance learning relies heavily upon an array of online platforms, learning management systems (LMS), and communication tools, which collectively facilitate the seamless delivery of educational content, assignments, and assessments.

Self-Directed Learning: The initial aspect centers on responsibility, wherein learners are frequently tasked with managing their own time, establishing goals, and sustaining motivation. The second element is grounded in autonomy, signifying that distance learning promotes self-directed learning. Here, students assume an active role in their educational pursuits and decision-making processes.

Flexibility: Students can access educational materials and engage in activities at their individualized pace and convenience. This adaptability accommodates a spectrum of schedules and learning styles, fostering an inclusive approach to learning that recognizes and respects the diverse needs and circumstances of the learner population. Additionally, the concept of spacial flexibility in distance learning diminishes geographical barriers, presenting an opportunity for learners residing in remote areas to partake in educational activities and pursuits without being constrained by location-based limitations.

III. Covid-19 and Distance Learning in Morocco: a Case Study of Sidi Mohammed Ben Abdellah University

1. Methodology:

This paper employs an online survey questionnaire as a methodological tool to determine the requirements, obstacles, contributions, and prospects associated with distance learning within the context of Sidi Mohammed Ben Abdellah University, serving as a case study of investigation. This study presents an exploratory investigation designed to highlight the dynamics of distance learning during Covid-19. It endeavors to put scrutinize and shed light on how distance learning is used by Moroccan

university students as an alternative approach in response to the challenges posed by the COVID-19 pandemic. Furthermore, It inspects the nexus between student-teacher, student-student interaction along with an examination of the commitment levels exhibited by both parties in the learning process.

With a total of 300 responses, the pretest sample in the study is characterized as a convenience sample or a non-probability sample, as the inclusion of participants was primarily based on their convenient availability for participation. The use of Cronbach's Coefficient Alpha in this research serves the purpose of evaluating the internal consistency and reliability of the questionnaire items incorporated in the study. The outcomes of the reliability analysis revealed a coefficient of 0.69, indicating a commendable level of stability in the questionnaire's questions. This substantiates the reliability of the research instrument, affirming its suitability for the intended objectives of this study.

The data has been collected, and uploaded into an Excel file, organized and systematically analyzed in the statistical program (SPSS). Subsequently, descriptive statistics were employed to determine the arithmetic means and standard deviations, contributing to the finalization of the study data. In accordance with our use of a Likert scale questionnaire, in adherence to the utilization of a Likert scale questionnaire, the delineation of the grading period duration will be indicated in the subsequent manner: Category Length, denoted as 2/3, equates to a numerical value of 0.64. Consequently, the interpretation of responses will be directed in the following manner: we will express the duration of the grading period as follows:

Weak: 1.66 - 1

Moderate: 1.67 - 2.33

Strong: 2.34 - 3.

In relation to the references employed in this study, a diverse array of Arabic and English resources, including books, scholarly articles, and conference materials, were utilized. Additionally, in addressing the research problem, the empirical phase involved an analysis of a survey directed towards anonymous students affiliated to Sidi Mohammed Ben Abdullah University. The survey sought to discern and assess students' perspectives on distance learning, as well as their responses to this unprecedented mode of learning through answering a series of different questions using Likert scale and open-ended questions.

The purpose of the current quantitative study is to understand student attitudes about distance education in a specific context, namely that of covid-19. This online survey is divided into four main sections, which are divided as follows: personal information, Academic information and finally, university students' experience with distance learning under quarantine.

The primary objective of the present quantitative study is to gain insights into student attitudes towards distance education within the specific context of the COVID-19 pandemic. The online survey employed for this study comprises four principal sections, structured as follows: personal information, academic information, a dedicated section aimed at delving into the experiences of university students with distance learning during the stay-at-home period. Additionally, a distinct section is allocated in the survey to systematically investigate the opportunities and challenges encountered by university students in the realm of distance learning. This sections aims to elicit responses that shed light on the positive

aspects and potential advantages, as well as the hurdles and difficulties faced by students navigating the educational landscape under the constraints of Covid-19 protective measures. By systematically exploring both opportunities and challenges, the study endeavors to provide a comprehensive understanding of the multifaceted dynamics in the transition from the traditional way of learning to the remote one during the specified period.

2. Discussion:

a. Profile of the sample

Gender	Male	46%
	Female	54%
Age	18 – 22	31%
	22 – 25	32%
	25 – 30	29%
	More Than 30	8%
Area Of Residence	Urban	80%
	Rural	20%
Degree Level	Bachelor	64%
	Master	20%
	Doctoral	16%

The study encompasses of 300 students affiliated to Sidi Mohammed ben Abdellah University in Fez, with a demographic composition comprising 54% females and 46% males. Notably, male participation lags by approximately 4%, scanty compared to that of females.

In relation to age, it is pertinent to assert that a substantial majority, exceeding 90% of our surveyed student participants, fall within the scope of youth as per the classification set forth by the United Nations. This classification aligns with the age distribution observed, where 32% of respondents are aged between 22 and 25 years, 31% fall within the bracket of 18 to 22 years, and an additional 29% represent the age group spanning 25 to 30 years. Notably, a smaller segment of 8% comprises students aged 30 years and above. The United Nations, in accordance with its international standards, defines youth as individuals between the ages of 15 and 24. Therefore, the aforementioned age distribution underscores the predominance of youth within our respondent population, aligning closely with the United Nations' delineation of this demographic category.

The majority of these students 80% belong to urban areas, while only 20% come from rural areas. The student's area of residency might strongly affects student's experiences. It can also unveil multiple inequalities that puts urban students in a position of advantage compares to rural students.

The predominant segment, constituting 80% of these students belong to urban areas, in contrast to the 20% residing in rural areas. The geographic dimension of students' residences emerges as a pivotal factor that significantly influences their learning experiences. This influence extends to unearthing various disparities, potentially creating a scenario where urban students enjoy certain advantages over their rural counterparts. Particularly amidst the challenges posed by COVID-19 pandemic, these geographic disparities may play a role in shaping the accessibility to learning resources, further

accentuating inequalities between urban and rural students. Consequently, a comprehensive exploration of the interrelation between geography, educational equity, and the impact of the pandemic becomes essential for informed educational policies and future interventions.

Concerning the educational level of respondents in the context of distance learning amidst the pandemic, the data presented in the table above underscores that the majority of participants from Sidi Mohamed Ben Abdellah University are pursuing undergraduate studies. Specifically, 64% of respondents are enrolled in Bachelor's degree programs, indicating a prevalent use of distance learning at this academic level. In contrast, the remaining respondents are distributed across higher levels of education, with 20% pursuing master's degrees and 16% enrolled in PhD programs.

This distribution prompts an analysis of the accessibility and utilization of distance learning across different educational tiers. The predominance of undergraduate students may suggest a widespread adoption of distance learning at this foundational level, and possibly reflecting its role in expanding educational access. However, attention should also be given to the representation of graduate students in master's and PhD programs, as it raises questions about the adaptability and inclusivity of distance learning in catering to the diverse needs of higher education.

b. Distance learning: Students' experiences

Amid the global outbreak of the COVID-19 pandemic, students globally found themselves compelled to adapt to the sudden closure of schools, forcing a shift from traditional face-to-face learning to distance learning. Many students had already been exposed to technology-mediated education. This abrupt change raised concerns about the readiness of students to navigate the challenges associated with distance learning, particularly in a context like Morocco. Therefore, a central question arises: To what extent are Moroccan students prepared for the transition to distance learning?

The Students' prior experience with technology-mediated learning implies a potential familiarity with digital tools and online educational resources. This prior exposure could be advantageous in facilitating a smoother transition to distance learning, as students may possess a foundational understanding of digital platforms.

Before lockdown, have you ever attended any remote classes organized by your university?		During lockdown, have you ever attended any remote classes organized by your university?	
no	yes	no	yes
83%	17%	26,3%	73,7%

The statistics provided shed light on the varied backgrounds of students regarding their familiarity with distance learning. The overwhelming majority, comprising 83%, had no exposure to remote education prior to the pandemic, suggesting that the sudden transition imposed by the global health crisis was a novel experience for them. This lack of prior engagement might have posed initial challenges for these students as they grappled with the demands and nuances of distance learning

Conversely, the 17% of students who had encountered remote learning before the pandemic likely had a head start in adapting to the shift. Their prior experience might have equipped them with a level of comfort and literacy in navigating online educational platforms, potentially mitigating some of the challenges faced by their peers with no prior exposure.

In this respect, the following questions target how student view distance learning and their prior experiences with it. First, 83% never had any experience with remote learning before the pandemic. Whereas only a small percentage of students have experienced such mode of learning making only 17%. Moreover, when asked whether they had followed/still following remote classes organized by the university, 73% said yes, while 26% said no and thus, have no experience.

The subsequent query regarding participation in university remote classes provides insights into the current state of student engagement. The majority, accounting for 73%, reported active involvement in virtual classes, indicating a considerable adaptation to the new mode of learning. On the contrary, the 26% who have not participated highlight a segment of the student population still lacking direct experience with remote education.

These findings underscore the heterogeneous nature of students' readiness for distance learning, with a significant portion having to acclimate to this novel educational approach. As educational institutions continue to navigate the complexities of distance learning, understanding and addressing the diverse experiences and needs of students become vital for fostering an inclusive and effective virtual learning environment.

How prepared did you feel to shift to an online learning environment?			
Unprepared		Somewhat prepared	
26%		63%	
		Prepared	
		11%	
How long did it take you to adapt to distance learning?			
Not yet		Less than a week	
23,7%		47,3%	
		3 to 4 weeks	
		8,0%	
		1 to 2 weeks	
		21,0%	

The table reports students' answers in relation to their preparedness for the shift from traditional classes into an online learning environment. 63% of this survey's participants were somewhat prepared. The second category with 26% of participants who are not at all prepared. While the last one consists of 11% of respondents who said they were very prepared to indulge in this switch and new remodeling in the learning process under covid-19 pandemic.

The distribution of responses in the table above reflects a diverse range of preparedness levels among students as they navigate the challenges posed by the transition to online learning. The largest segment, encompassing 63% of participants, suggests a moderate level of readiness. This group may have had some familiarity with digital tools or experienced a degree of preparedness through institutional support, contributing to their ability to adapt to the new online learning paradigm

The 26% of students expressing a lack of preparedness underscores a significant challenge faced by a considerable portion of the student population. Factors contributing to this lack of readiness could

include limited access to technology, inadequate training in digital skills or insufficient support systems in place to facilitate the transition

Conversely, the 11% of respondents who reported feeling very prepared signify a smaller but notable subgroup of students who may have had prior exposure to distance learning, possessed a strong technological aptitude, or benefited from effective institutional guidance. Their preparedness suggests that some students were not only able to adapt but may have thrived in this virtual learning environment.

The observed variation in students' preparedness for the shift to online learning can be attributed to a deficiency in essential training and methodology, rendering the experience inherently challenging. As highlighted in the (Warner et al., 1998) study on readiness, the findings reveal that students exhibited a lack of readiness and acceptance towards online learning. Specifically, the study identified that students possessed low skills in sophisticated computer and internet-related tasks, displayed a preference for traditional face-to-face course delivery methods, and were generally ill-prepared for online learning.

In the same line, concerning students' adoptability, a significant portion of students, experiencing distance learning for the first time, quickly adapted to the techniques and skills required, with the majority taking less than a week to become accustomed. Specifically, 21% reported an adjustment period ranging from 1 to 2 weeks, while 8% needed between 3 to 4 weeks. However, 23% of respondents expressed difficulty in acclimating to distance learning, highlighting certain challenges.

Despite being considered the most tech-savvy generation, young people still encountered barriers and inflexibilities in transitioning to distance learning, demonstrating that familiarity with technology does not necessarily equate to seamless adaptation to new modes of learning. The unfamiliarity with what to expect in the distance-learning environment suggests a need for clearer communication and orientation regarding the expectations and dynamics of virtual, technology-based education.

In summary, the process of adapting to distance learning is a significant challenge, with a majority of students lacking the essential IT skills necessary for effectively managing a coherent and consistent online education experience. Despite being unprepared for this new venture, students had to quickly embrace and adapt to this novel mode of learning to ensure the continuity of their education. However, achieving higher levels of autonomy and successfully implementing resource-management strategies proves to be a complex task for many students. A systematic review conducted by (Rasheed et al., 2020) highlighted that students who participate in online education struggle to use these strategies adequately; they experience self-regulation, motivational control, help seeking, and their technological competencies as main challenges. In other words, these pervasive challenges imply that many students find it challenging to manage their own learning processes and maintain the discipline required for successful online education. Motivational control issues suggest that sustaining the necessary drive and enthusiasm for remote learning can be a significant hurdle for students.

how many hours a day do you spent studying online ?		
Less than 1 hour	hours 3-1	More than 3
56%	14%	30%
how often are you connecting with your instructions during you distance learning experience ?		
few times a week	less than once a week	not at all
33%	29%	14%

In parallel, the traditional university day typically spans from 4 to 6 hours, but the landscape has significantly shifted with the incorporation of distance learning. The study shows that the time spent studying online varies: 56% of students dedicate between 1 and 3 hours per day, 30% allocate less than an hour daily, and 14% invest more than 3 hours daily in attending online classes and fulfilling their academic responsibilities. It is evident that the temporal dynamics of distance learning differ widely, and the study suggests that the amount of time spent is an individual choice that varies among students. Thus, the absence of a consensus on the appropriated time for distance learning underlines the personalized nature of this educational approach. Individual student preferences, learning styles, and the demands of specific courses play a crucial role in determining the amount of time students choose to invest in their online studies.

Suffice to say, time is an important variable in distance learning, however, there is no consensus about how much time is allocated. Instead, it is distinctly an individual choice, intimately tied to the preferences and circumstances of each student. The autonomy that distance learning is offering can be an empowering factor to students. Nevertheless, it also accentuates the potential challenges associated with self-regulation and time management in distance learning. Without a standardized framework, students may need to develop robust self-discipline and organizational skills to effectively balance their academic responsibilities with other aspects of their lives.

Moreover, interaction and communication stand out as equally crucial variables in determining the success of any learning process. The reported frequencies of connectivity indicate varying levels of engagement between students and their university professors. The 33% of students reporting a few times a week suggests a moderate level of interaction, allowing for periodic communication that could support the learning process. On the other hand, the 29% with less than once a week communication may experience fewer opportunities for direct engagement, potentially affecting their ability to seek clarification or additional support. The 7% who reported frequent daily contact highlight a subgroup of students who have established regular and consistent communication with their professors, likely benefiting from enhanced support and guidance. This level of interaction can contribute to a more dynamic and engaged learning experience. However, the significant 31% of respondents indicating "not at all" signals a concerning gap in communication between students and teachers. This lack of contact may hinder students' access to essential resources, clarification on course content, or personalized guidance, potentially impacting their academic progress and overall learning experience.

This entails that interaction plays an important role in distance learning as it fosters usability as well as quality. Interaction, particularly with teachers, yields a substantial impact, contributing significantly to the student's comprehension of course content. (Ossiannilssons, 2012) research illustrates that presence of the academics is crucial for learners' motivation and willingness to stay in the course as well as to keep on track. His findings show that interaction and connectivity are highly important factors for an effective distance learning experience. By way of explanation, the positive impact on motivation and retention suggests that the human element in education plays a crucial role in the online learning environment. Additionally, within their E-excellence Associates label, The European Association of Distance Teaching Universities (EADTU) accentuates four success factors regarding e-learning quality, namely, accessibility, interactivity, flexibility and personalization (Ubachs, 2009). Which in fact, collectively contribute to a more student-centric and adaptable learning environment.

Commitment

Degree	Standard Deviation	Arithmetic Mean	
Moderate	0,696	2,00	In your opinion, how committed are your professors in delivering remote classes?
Moderate	0,684	1,90	How committed are you to the remote lessons provided by your institution

Commitment from both students and teachers is an eminent quality that should be present for the success of this new mode of learning. Students were accustomed to traditional face-to-face learning, and the implication of online learning caused issues. (Jovi et al., 2017).

The term "commitment" in this context refers to the extent and degree of engagement that both students and teachers demonstrate in the realm of online learning, with a direct implication on learners' satisfaction. According to the results of the study conducted at Sidi Mohammed Ben Abdellah, the results can be summed as a moderate degree of variation, as evidenced by a standard deviation of 2, with an average arithmetic mean of 0.7.

This deviation signifies a reasonable level of diversity in the responses received. In terms of commitment to remote lectures facilitated and hosted by their educational institution, the students demonstrated an average commitment level of 1.90, with a standard deviation of 0.69, indicating a moderate degree of commitment overall.

Furthermore, the time devoted by participants can be summed, on average, by a mean of 2.17 to remote classes, with a standard deviation of 0.41. This duration suggests a moderate scale in the time spent by students in virtual learning environments. Additionally, the standard deviation concerning this time spent is 0.63, reflecting again a moderate level of commitment

Student Commitment: Student commitment to remote lessons indicates a diverse range of responses. The majority, at 54%, exhibit a moderate commitment level, which suggests that these students are likely engaged to a certain extent but may not be fully invested or motivated in their remote learning experience. It is notable that 24% express an extremely high commitment. This category is likely to actively participate, complete assignments on time, and seek additional resources, contributing to a positive learning environment. Conversely, 25% demonstrate no commitment. This suggests a varied spectrum of engagement among the student body. The fact that a quarter of students express no commitment is a concern, as lack of engagement can hinder the success of distance learning initiatives and the learning process in general.

Professor Commitment: The assessment of professors' commitment, as perceived by students, reveals a similar diversity. A slightly larger portion, at 55%, is seen as somewhat committed. However, 28% believe their professors exhibit no commitment, and 23% perceive an extremely high level of commitment. This variability in perceptions suggests a nuanced view of the level of engagement among the teaching staff.

Implications for Satisfaction: The link between commitment and learners' satisfaction is implied. The results of the study suggest that the perceived commitment levels of both students and professors may have implications for overall satisfaction with the online learning experience.

To summarize, The success of distance learning is contingent on the mutual commitment of both students and teachers. The data shows reciprocal commitment creates a dynamic and collaborative learning environment that can positively influence outcomes. These results are in line with the findings of Baber (2020), Eom and Ashill (2016), Lasfeto (2020), Lemay et al. (2021) and Mehall (2020). The lecturers should consider the learner's execution, readiness, and satisfaction as important when conducting online lectures whereas the students must be more engaged and communicative with their peers as well as their instructors. Shelton (2011) indicated that online education programs require strong and ongoing support, training, motivation, compensation and overall policies.

Satisfaction

Much research has been conducted on distance learning and students' satisfaction level. In this regard, Student satisfaction is the subjective perceptions, on students' part, of how well a learning environment supports academic success (Lo, 2010).

Degree	Standard Deviation	Arthemtic Mean	
Moderate	0,810	1,64	Are you satisfied with the way your University has dealt with the remote learning emergency crisis
Moderate	0,806	2,02	Are you satisfied with the quality of lessons taught remotely by your university during quarantine?

As displayed in the table above, it is observed that the arithmetic mean of students' satisfaction with the university's remote classes is 1.64, with a standard deviation of 0.81, indicating a moderate level. Furthermore, their satisfaction with the quality of remote lectures delivered by the faculty during this period had an arithmetic mean of 2.02 and a standard deviation of 0.81, also at a moderate scale. Based on this data, it can be inferred that the majority of students hold a high level of satisfaction regarding their encounters with emergency remote learning. This aligns with the efforts exerted by the teaching staff at Sidi Mohammed Ben Abdellah University.

By way of explanation, 28% of students are satisfied with the quality of lessons taught remotely by their university. 14% feel extremely satisfied, 24% neural, 28% are unsatisfied while 6% feel that they are extremely unsatisfied. It can be inferred that students do not attribute any blame to their instructors for the delivery of lessons, contributing to an overall satisfaction with the lesson quality.

(Swan, 2001) posits that factors such as the clarity of design, interaction with instructors, and active discussion among course participants have a substantial impact on students' satisfaction and their

perception of the learning experience. This insight emphasizes on the multifaceted nature of student satisfaction, indicating that beyond the delivery method, elements related to instructional design and interaction dynamics play pivotal roles in shaping students' overall contentment and perceived learning outcomes. Consequently, addressing these aspects may contribute to enhancing the effectiveness of remote teaching and learning strategies. Moreover, (Eom et al., 2006) concluded that course structure, instructor feedback, self-motivation, learning style, interaction, and instructor facilitation significantly affected student satisfaction.

Challenges

The following section covers the challenges faced by students during their distance learning experience. The data reveals that a staggering 73% of respondents found themselves grappling with various difficulties while engaging in remote learning. In stark contrast, 27% managed to navigate the virtual learning landscape without encountering significant difficulties.

Delving into the specifics of the challenges faced, respondents were prompted to select from a comprehensive list of 13 difficulties. At the forefront of the hurdles reported was the pervasive issue of inadequate access to technology, encompassing a lack of electronic devices, difficulties in accessing educational platforms, unreliable internet connections, and a limited grasp of digital skills. This multifaceted problem emerged as the most frequently mentioned challenge, with nearly half of the respondents citing technology-related obstacles. The repercussions of this barrier extended beyond the realm of technology itself, with almost an equal percentage reporting difficulties stemming from an unsuitable home environment. Such unfavorable conditions not only compromised the quality of the learning experience but also led to disruptions in concentration.

The second most prevalent set of challenges pertained to the realm of learning content and assessment. Interaction with professors emerged as a significant concern for 33% of respondents, highlighting the struggles associated with establishing effective communication channels in the virtual space. Similarly, 30% of participants expressed difficulties in engaging with their fellow students, indicating a potential loss of the collaborative and interactive aspects that traditional classrooms offer.

Further analysis revealed that a noteworthy proportion of students, approximately 15%, faced challenges related to the dimension of time. This included difficulties in receiving timely information about the schedule of remote lessons conducted by their teachers. Such time-related issues not only disrupted the rhythm of the learning process but also pinpointed the need for effective communication and organizational strategies in the context of distance education.

In essence, the survey findings shed light on the complex nature of the challenges encountered by students during the COVID-19 pandemic. From technological barriers to issues surrounding learning content, assessment, and timely information, the data emphasizes the need for comprehensive solutions and support systems to address the diverse array of obstacles hindering effective distance learning. The implications extend beyond the immediate context of the pandemic, advocating for a reevaluation and enhancement of digital infrastructure and educational strategies to better prepare for the evolving landscape of such education.

Opportunities

Contrasting the challenges, it is important to acknowledge the positive aspects of technology-based education, which accrue benefits for both educators and students. A substantial 56% of respondents expressed that the remote learning experience brought about additional value, elucidating a positive dimension to the paradigm shift in education. This value, as mentioned by the participants, is diverse and encompasses a set of essential skills and attributes.

Foremost among the perceived advantages is the enhancement of self-reliance, wherein students reported an acquired ability to take responsibility and ownership of their learning journey. The remote learning environment has fostered self-directed learning, empowering students to assume greater responsibility for their educational progress. This, in turn, contributes to the development of self-regulation and patience as students navigate the challenges of independent learning.

Moreover, the flexibility found in distance learning has facilitated increased autonomy among students. The ability to manage one's time efficiently emerged as a crucial skill, with respondents noting the positive impact on time management and the subsequent saving of time, as learners could tailor their schedules to suit individual preferences and needs. This flexibility not only improves time management but also widens information and communication technology (ICT) literacy, equipping students with valuable digital skills essential in contemporary society.

The positive implications extend beyond the realm of technical literacy. This learning experience has been instrumental in honing soft skills, such as the ability to work effectively in challenging circumstances. Students have had the opportunity to adapt to unconventional learning environments, displaying resilience and adaptability—a valuable attribute in an ever-changing global landscape.

Furthermore, the digital medium has facilitated access to a plethora of free resources and information, spanning diverse platforms and materials. This expanded access not only enriches the learning experience but also democratizes information, ensuring that educational resources are more widely available.

To sum up, the use of technology in distance learning, despite its challenges, has provided a host of advantages that resonate with both teachers and students. From fostering self-reliance and autonomy to enhancing soft skills and ICT literacy, the positive outcomes mark the transformative potential of remote education. As educational practices continue to evolve, leveraging these benefits will be pivotal in shaping a more resilient and adaptable generation of learners.

How Would You Like To Continue Classes After The Pandemic		
Blended	Physical	Virtuel
53%	41%	6%

The preferences expressed by respondents regarding the resumption of classes provide valuable insights into the evolving landscape of education, particularly in the context of the COVID-19 pandemic. A noteworthy 53% of participants indicated a preference for blended learning, a model that seamlessly

combines in-person and virtual lessons. This inclination reflects a desire for a flexible and adaptive educational approach that leverages the benefits of both traditional classroom settings and the advantages offered by digital learning environments.

In contrast, 41% of respondents expressed a preference for a return to exclusively in-person classes. This choice underscores the enduring value placed on face-to-face interactions and the tangible benefits of a physical classroom environment, such as direct engagement with instructors and peers.

Meanwhile, 6% of participants favored the continuation of distance and virtual classes, signaling a continued acceptance of remote learning as a viable educational modality. This preference aligns with the recognition of the role technology plays in modern education, emphasizing the importance of integrating information technology into the learning process.

The prominence of blended learning in the preferences of the majority suggests a nuanced approach to education, acknowledging the merits of both in-person and virtual instruction. The hybrid model not only accommodates the need for social interaction and direct engagement but also capitalizes on the advantages brought about by digital tools and resources.

To conclude, the findings underline the pivotal role of technology in the educational landscape, particularly in Moroccan higher education. The widespread adoption of virtual learning during the pandemic has led to a paradigm shift, with a considerable number of participants endorsing blended learning as a viable solution to the current educational crisis faced globally. This shift reinforces the need for educational institutions to continue integrating technology into their pedagogical approaches, ensuring a more resilient and adaptive education system capable of navigating the uncertainties of the contemporary world. As education continues to evolve, the preferences of students for blended learning highlight the importance of flexibility, innovation, and a balanced integration of traditional and digital learning methodologies.

Advantages of Distance learning:

The students' opinions on the strengths and weaknesses, challenges and opportunities encompass their overall experiences of distance learning. The following reflective ideas identified by the participants' draws attention to the adaptability and transformative potential of distance learning in the contemporary educational landscape:

Participants acknowledged the significance of distance learning in adapting to the current era's demands, recognizing the need for educational methods that align with the dynamic global landscape.

Distance education was praised for fostering self-learning, independence, and breaking down geographical barriers, ensuring widespread accessibility and promoting inclusivity. Moreover, the flexibility in timing was seen as a significant advantage, catering to diverse learning styles. Students noted increased instructor commitment, and the liberation from temporal and spatial constraints was seen as a notable advantage. Access to digital information enhanced understanding, while distance learning expanded opportunities, addressed overcrowded classes, and maintained strong instructor-student relationships. It also encouraged questions and discussions, allowed flexible lesson reviews, and offered potential cost and distance reduction. Access to external lectures showcased collaboration and resource sharing in the digital learning space.

Results of the study:

The findings from this investigative study provide valuable insights into the nuances of distance learning adoption during COVID19, offering a foundation for informed decision-making and policy formulation in the realm of higher education in Morocco.

- ✚ Continuity of education through distance learning: The data unequivocally supports the conclusion that remote learning played a pivotal role in ensuring the continuity of education during the quarantine period. As a vital alternative, it emerged as a crucial lifeline for students and served as a mechanism for delivering educational content amid the disruptions caused by the pandemic.
- ✚ Disparities in Access to Distance Education: A notable finding indicates that distance education did not reach the entirety of Moroccan students, with pronounced disparities observed among those from vulnerable social classes or residing in rural areas. This raises concerns about the inclusivity and accessibility of remote learning, particularly for marginalized groups.
- ✚ Unpreparedness and Adaptation of Students: The study reveals that students of Sidi Mohammed Ben Abdellah University, were not fully prepared for the abrupt transition to distance learning. However, a commendable portion of students exhibited adaptability, embracing the new learning model despite the challenges posed.
- ✚ Technological Barriers Faced by young learners: Despite being a segment familiar with modern technology, young learner encountered barriers and challenges in adapting to remote learning mechanisms. This highlights the need for targeted interventions to address technological hurdles and enhance the efficacy of distance education.
- ✚ Obstacles to Achieving Intended Goals: Obstacles such as difficulty accessing information sources, insufficient resources, communication gaps, and a lack of experience in dealing with remote learning technologies hindered the attainment of the intended goals of distance education during the lockdown period.
- ✚ Communication Challenges Between Professors and Students: The study reports nearly nonexistent communication between a significant portion of professors and their students, emphasizing the importance of effective communication channels in facilitating successful remote learning experiences.
- ✚ Student Satisfaction and Faculty Efforts: Despite the challenges, the majority of the sample expressed satisfaction with the quality of lessons delivered by the faculty of Sidi Mohammed Ben Abdellah University. Recognition of the efforts made by faculty members to ensure the continuity and quality of remote lessons highlights the resilience of the academic community.
- ✚ Novelty of Distance Learning Experience: For a significant portion of the study sample, remote learning during the COVID-19 pandemic represented a novel and unprecedented experience, reshaping perceptions and expectations regarding education within Moroccan universities.
- ✚ Preference for a Hybrid Learning Model: A noteworthy conclusion is the preference among sample participants for a homogeneous blend of in-person and virtual lessons post-COVID-19. This preference underscores the potential for a hybrid learning model that combines the strengths of both traditional and remote education.

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