



Emergency Remote Learning in Higher Education during COVID-19 Era: Students and Professors' Experiences

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Abstract

Due to the current massive pandemic situation, global educational systems have, by necessity, shifted from in-person to virtual learning. As a result, this newfangled educational paradigm has changed the conception of teaching and learning from a rigid process to a novel environment where new rules and objectives are set. In the present context, this research paper is intended to discuss the contemporary educational prototype as an alternative to traditional face-to-face instruction in order to accomplish quality learning and rescue the academic year from a doomed failure. In this regard, this study relies on a quantitative and qualitative research analysis, based on questionnaires designated to teachers and students of the National School of Applied Sciences of Tétouan (ENSATE) at Abdelmalek Essaâdi University to reflect upon their experiences, insights, and perceptions of distance education with respect to teaching materials, content, and syllabus delivery. The aim, therefore, is to disclose the variant challenges that are being encountered by the aforementioned students and teachers, including their attitudes toward e-learning course content and pedagogy. It is equally important to pinpoint the different possible strategies and policies that ought to be adopted by education policy makers to perfectly meet the novice learning/teaching needs and aspirations.

Keywords: Emergency remote education, E-learning, Higher education, Obstacles, Recommendations

1. Introduction

The current pandemic situation that the world goes through, namely COVID 19, has urged changes in the educational system globally. One of the biggest disquiets during this time has been the abrupt closure of schools and institutions. Subsequently, the suitable alternative for the majority of governments was the urgent need toward the adoption of online education and e-learning during the lockdown period. As a result, teaching and learning processes have been completely changed, with the intense growth of e-learning, whereby those processes are assumed on virtual classrooms. In effect, distance learning as a new evolving way of teaching through substituting in-class courses with virtual and remote learning was always considered a luxury before the COVID-19 era, as it was strong countries prerequisite, and many developed countries were economically ranked on that basis. Nevertheless, the pervasive spread of the corona virus has changed the world's priorities in the sense that preserving human life becomes a necessity. In view of that and due to the unexpected mass lockdown, online learning becomes no longer a luxurious way of education, but an exigency. In reality, the outbreak of Corona virus wakened an international concern that has pushed many education policy makers to shift to online instruction through the use of a plethora of applications and platforms.

Morocco is one of the countries that decided to close completely their educational institutions as part of its policies to control the pervasive spread of the virus since Monday, March 16, 2020. In fact, it had a head start on digital education, replacing in-person classes with online classes enhanced learning alternatives. Viewed in this way, the Ministry of National Education, Vocational Training, higher Education and Scientific Research worked in partnership with The National Television and Radio Corporation to present a series of lessons and lectures on some national channels to be at the disposal of secondary and higher institutions. In the same sphere of interest, the National School of Applied Sciences in Tetouan, as part of Abdelmalek Essaadi's institutions, was not an exception. All administrative and educational stuff were called upon to engage efficiently and intensively to adhere to the academic calendar in order to ensure the continuity of the academic year through all the digital resources and solutions that could be provided.

Nevertheless, the situation is not as glowing as it may appear. The pandemic situation discloses several pitfalls in the education systems of many countries, especially low-income countries. Morocco is no exception. The inequality gap between countries in education systems has been aggravated during the pandemic era in which many difficulties and obstacles to a smooth and effective implementation of technologies in the teaching/learning process are being raised. Accordingly, in arrears of every argument cheering on distance education at this period of time are the underlying questions of whether it is comparable to conventional education, whether all teachers have the skills to deliver an online course, and whether students' performance can be tested in an online environment. In the present context, this paper is designed to discuss the importance of e-learning as an alternative to the existential learning to accomplish quality learning for students and rescue the academic year from an inevitable failure. Considering one of the institutions of Moroccan universities as a case study, this research paper relies on both quantitative and qualitative research analysis, which is based on questionnaires designated to teachers and students of the National School of Applied Sciences – ENSATE, at Abdelmalek Essaadi University to reflect on their different experiences of distance learning and make visible the challenges they encounter at the educational, logistic and technological levels. It focuses on their attitudes towards the e-learning course content and pedagogy. It is equally important to pinpoint the different possible strategies and policies that should be adopted by education policy makers to perfectly meet the updated learning/teaching needs and aspirations.

2. Literature Review

Information and Communication Technology (ICT) has received a global concern for its usefulness and enormous effectiveness in shifting education to an advanced level. Many studies have proven that the use of ICT in education is becoming the backbone of any education system as it plays a decisive role in changing the classroom dynamics; it is no more a one-way based instruction, but a two-way based communication in which teachers and students interact in a more stimulating environment where students should make use of their meta-cognitive skills, such as problem solving, critical thinking, and way of reasoning (Gardiner, 1993; Davis & Shade, 1999; Jung, 2005; Hew &



Brush, 2007; Erguig, 2009; Soussi, 2015). Viewed this way, ICTs are recognized as prime movers toward a powerful educational transition from a traditional way of a prescribed set of information to a more active and rejuvenating methods of instruction. When they are properly used, ICTs contribute on a large scale “to help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality by, among others, helping make teaching and learning into an engaging, active process connected to real life” (Arti & Skirant, 2010, p. 9). However, an appropriate and propitious use of ICTs cannot be achieved overnight; skilled instructors and systematic access to technical gadgets are keystones for an effective and a fruitful education. Lack of training is considered to be one of the most challenging impediments toward an operative and productive education. Teachers who have received little or no training on how to implement ICTs in their course delivery may hold a negative attitude toward these new technologies. They may appear challenging, time and energy consuming, and even exhausting (Woolfitt, 2015). Thus, without mentorship, conventional way of teaching will always be prioritized by teachers and the various technological possibilities that ICTs provide for a valuable and beneficent learning will fade away through time.

Actually, the concept of distance learning or distance education is not new-fangled; many sources trace it back to the 1800s where it started with a method called correspondence education. This earliest form of distance education was achieved through mailing; students received the lesson via a mail and replied to their teachers in that order. At that point, distance education has been considered as a planned learning through print communications to groups that do not share the same learning space and time. Later on, in the 1990s, and with the development of broadcasting technology, universities started broadcasting courses to students through live radio courses, thenceforth through live television courses. Nevertheless, this approach of learning, students were not able to interact neither with their teachers nor with other students; the communication flowed from the instructor to the learners, yet no responses went back in return. However, with the rapid evolution of new technologies, distance education becomes more high-tech. Shockley asserts that “online learning is moving beyond this primitive, one-to-many broadcast model to become a social, collaborative, personalized and interactive experience that generates two powerful, mutually reinforcing success accelerants” (2014, para. 6). The emergence of technology in the educational field allows both synchronous and asynchronous modes of learning; thus, students become able to interact with their teachers and students in a more innovative way, using virtual classrooms, mobile telephones, videoconferencing, Massive Open Online Courses (MOOCS), and so forth. Correspondingly, the traditional definition of distance education is being adapted, as new technological developments emerged. According to Moore and Kearsley (1996), distance education is defined as “planned learning that normally occurs in a different place from teaching and as a result requires special techniques of course design, special instructional techniques, special methods of communication by electronic and other technology, as well as special organizational and administrative arrangements” (as cited in Passerini & Granger, 2000, p. 2). Thus, distance education is not limited to a sender, receiver, and feedback; however, it comprises a whole process that consists of particular instructional strategies and pedagogies, communication modes and a course plan.

Today, distance learning is no longer a choice; rather, it turns out to be a necessity all over the world. Critical thinking and debates are increasingly being risen about re-thinking and re-designing the future of distance education after COVID-19. Hence, while evaluating the digitalization of higher education during this period, a number of pertinent facts evoked, specifically in terms of students’ and teachers’ digital competence and availability of information on online learning (Olasile & Emrah, 2020). Some of them are digital natives, yet others do not have the necessary skills. In this respect, some research describes distance education in the current context as an emergency remote-teaching situation (Bozkurt & Sharma, 2020; Hodges, Moore, Lockee, Trust, & Bond, 2020; Vlachopoulos, 2020; Vlachopoulos, 2020). According to them, a quality online education requires “a careful instructional design and planning, using a systematic model for design and development; however, this careful process is absent in emergency cases” (Hodges, Moore, Lockee, Trust & Bond, 2020, para. 7). In emergency remote-teaching, “the aim is not to re-create a robust educational ecosystem, but rather to provide a temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis” (Hodges et al., 2020, para. 13). Hence, distance education should not be mistaken in this perspective, for it directly affects students’ academic performance which is already influenced by racial, economic and resource differences. Accordingly, for a quality distance education, we should go “beyond sharing simple tools, tips and tricks, and instead focus on the changing learners’ needs, learning contexts, and the availability and accessibility of the tools” (Bozkurt, 2020, p. 2). In turn, Vlachopoulos (2020) concluded that “a systematic approach in investing, planning, and delivering online learning is an absolute must, as the alternative could be highly detrimental to the implementation and expansion of online education” (p. 18).

3. Methodology

3.1 Instrumentation

In the present paper, a quantitative and qualitative study was conducted in which data was collected via two questionnaire surveys at the end of the second semester of the academic year 2019/2020. Such surveys were realized to explore both teachers and students’ experiences of distance education, emphasizing the challenges they encounter at the educational, logistic, and technological levels. They also aimed to engender reliable facts and make firm conclusions and recommendations for the current study. Both questionnaire surveys were managed online through Google Forms, and delivered virtually via institutional emails to teachers and personal ones to students. The questionnaires were written in French to encourage all parties to participate. Teachers and students were required to sign a consent form prior to completing the survey. The consent form, contained within the survey, included information about the aim of the study, confidentiality and anonymity. Participation was completely voluntary.

3.2 Population of the study

3.2.1 Students

The survey was sent to all engineering students in the ENSATE, except those in the 5th year. The overall response rate was 65%; the global number of students was 913, and the number of responses was 591. The gender variable is not taken into consideration in the present study. The questionnaire format consisted of four close-ended questions. The questions were asked as follows:

- Overall, how would you qualify your learning through the platforms used by your teachers, compared to face-to-face learning?
- What is the main platform that you used most during distance education?
- If it is necessary to replace face-to-face teaching by interactive distance lessons, what proportion do you suggest?
- Among the digital resources used by your teachers, what format did you like the most?

3.2.2 Teachers

The survey was sent to all teachers as well. The overall response rate was 54%; the global number of teachers was 57, and the number of responses was 31. The questionnaire format consisted of five close-ended questions and one open-ended question for recommendations and remarks. The questions were asked as follows:

- Are you satisfied with the quality of distance learning compared to face-to-face teaching?
- Have you already benefited from distance education training courses?
- Did you experience any difficulties in distance learning?

- Any Remarks and/or Recommendations?

4. Data Analysis

4.1 Students

1) Overall, how would you qualify your learning through the platforms used by your teachers, compared to face-to-face learning?

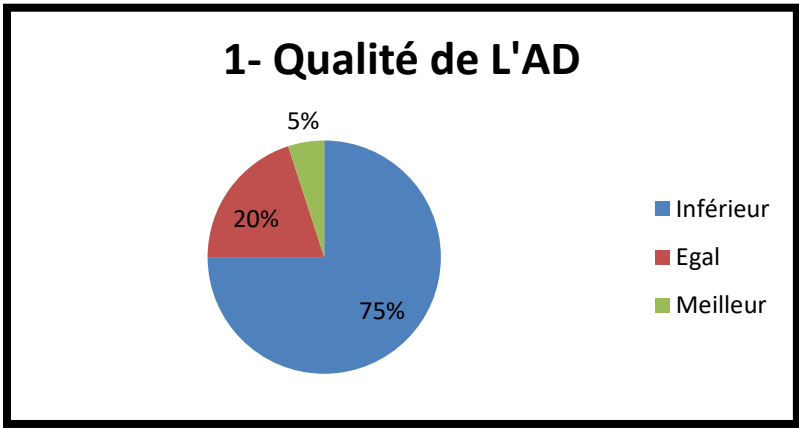


Figure 1. Learning qualification through teachers' online platforms

The chart above indicates that 75 % of students confirm that distance learning is less effective with respect to the quality of learning. This is so because the majority of teachers and students are not used to the implementation of technologies in the teaching/ learning process. In fact, the idea that students and their tutors do not share the same geographical space, and in some cases, they differ in terms of time zones make the process seem blurry and uncomfortable. The majority of professionals believe that learning outside of the classroom is very demanding with regards to the time and efforts exploited in this process. Teachers are always concerned on how to make students motivated and dedicated to the course. This conflictual situation creates a strong aversion to distance learning which might transform the teaching/ learning process from a smooth and enjoyable atmosphere to a nail-biting environment full of stress and inconsistencies. Actually, teaching in a conventional learning environment is completely far removed from teaching in an online virtual environment. Teachers in this context are meant to play different roles as instructors, mainly the didactic, pedagogic, methodological, animation and communication, socio-affective and motivational, technical, and intermediate role. In each of the former roles, a number of tasks are to be achieved by the instructors in order to meet the requirements of a quality online education. Yet, since online education in the current context was an emergency remote solution, the majority of teachers were neither eligible nor qualified for this new experience. Accordingly, the results in the chart above are not surprising; instead, they are anticipated and foreseen.

Students, on the other hand, feel burdened in this new environment with the extra tasks and skills that they are not familiar with. They are now more required to work independently, have managerial skills, especially with respect to time management and deadline attainment, and also obtain efficient self-discipline. In reality, in- person classes make the task easier for students to get integrated in the course with less cognitive as well as interpersonal efforts. Students who receive an online instruction, on the other hand, feel overwhelmed and exhausted with the overabundant obligations they have to fulfill on their own without the help of their instructors. As a result, they are all the time anxious and distressed about how to fulfill tasks and meet deadlines. This agonizing state of affairs leads to nowhere but discomfort, pain, and failure. Into the bargain, some students consider online learning platforms isolating and lacking interaction, since they are adapted to an active learning in face-to-face classes. Interaction is a compulsory modality in the learning process; therefore, an online education which lacks interaction practices leads obviously to students' negative perceptions. Hence, if technology is combined with the necessary teaching and learning modalities, the results then would be positive and satisfying. Hence, if technology is combined with the necessary teaching and learning modalities, the results then would be positive and satisfying.

2) What is the main platform that you used most during distance education?

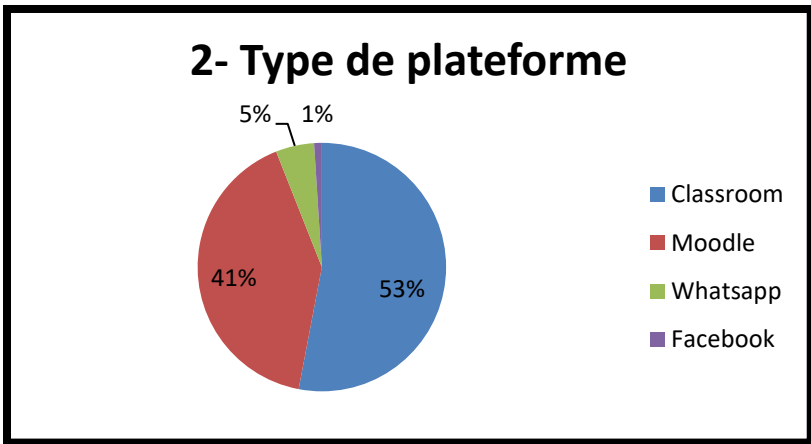


Figure 2. Main platform used in distance education

The two main platforms used during distance education in ENSATE are Google Classroom and Moodle; 53% for Classroom and 41% for Moodle. In effect, Abdelmalek Essaâdi University has adopted Moodle Learning Management Systems (LMS) in all its faculties and schools. However, one can observe from the percentages that not all ENSATE's teachers have abided by this choice and decision. Although Moodle offers more features and richer functionality, activities, and assessments than Google Classroom, the later seems to be more favored by the majority of teachers. 51% of teachers declared their use of Google Classroom even if it is not officially an LMS and not adopted by the University. Potentially, Moodle is a little complex than Google Classroom to comprehend; accordingly, since distance learning was an abrupt decision and solution that the majority of teachers are not familiar with, teachers opted for Google Classroom as it is easy to install and use and has a less steep learning curve. In fact, the use of different platforms leads to the lack of standardization in the assessment of digital learning systems. So, students may get lost with this multiplicity of systems, bearing in mind that they are, as well, facing and dealing with new learning environments. It is important for an online instruction to be homogenous, explicit, and versatile, because in an online environment it is difficult to monitor students' manipulation of systems, that may lead to a noteworthy risk of isolation and hostility.

3) If it is necessary to replace face-to-face teaching by interactive distance lessons, what proportion do you suggest?

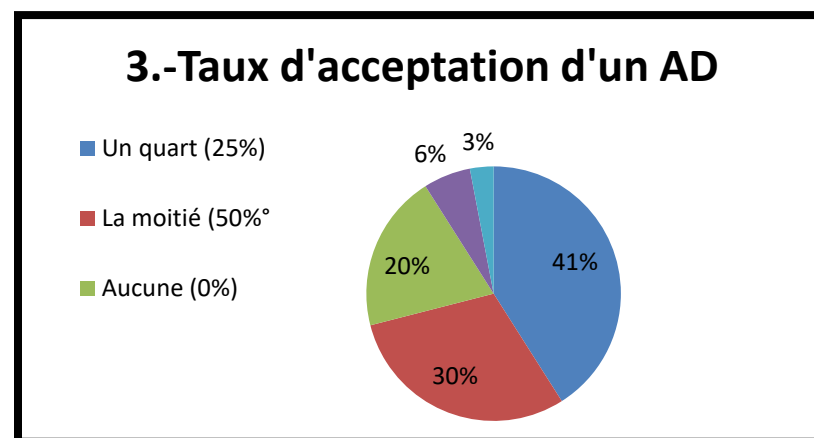


Figure 3. Acceptance rate of distance education

The chart above reveals a very stimulating percentage of participants who accepted a combined way of learning that includes the traditional classrooms experience and interactive digital courses. 41% of students opted for 25% of distance learning, while 30% of students opted for 50% of distance learning; the total rate is 71% which highlights that the majority of students encouraged a hybrid way of learning (also termed blended learning). Accordingly, students are not against the concept of distance learning; rather, they request quality teaching and learning strategies that involve interaction. The objective of hybrid learning is to merge both in class and distance learning to generate one learning model. According to Colis and Moonen (2001), “blended learning is a hybrid of traditional face-to-face and online learning so that instruction occurs both in the classroom and online, and where the online component becomes a natural extension of traditional classroom learning” (Rovai & Jordan, 2004, p. 3). In such mode of learning, asynchronous teaching methods can be used to add on and support in class instruction. At this point, we should refer to the importance of the use of ICT in education as it helps to create more effective and advanced learning experiences for students. In this way, hybrid learning should not consist only of online assignments or reading textbook; rather it should engage students in an interactive learning mode and stimulating environment that occur before, during, and after face-to-face classes. For instance, in the case of ENSATE which focuses on applied sciences like mechatronics, computer sciences, civil engineering, telecommunication, and network, teachers can use virtual learning employing ICT to facilitate the understanding of complex and abstract scientific facts by engendering realistic models that are difficult to explain through texts or oral explanations in traditional classrooms. The use of artificial intelligence, on the other hand, allows students to be creative, develop a critical mind, and engage in problem-solving (Dziuban, Graham & Moskal, 2018). Generally, several researchers (Dziuban, 2018; Means, Toyama, Murphy & Baki, 2013; Rovai & Jordan, 2004) have concluded that hybrid learning or blended learning affects students’ advancement and satisfaction in a constructive way when compared with traditional classes. Accordingly, such modes of learning are today compulsory in higher education if they are to function effectively.

4) Among the digital resources used by your teachers, what format did you like the most?

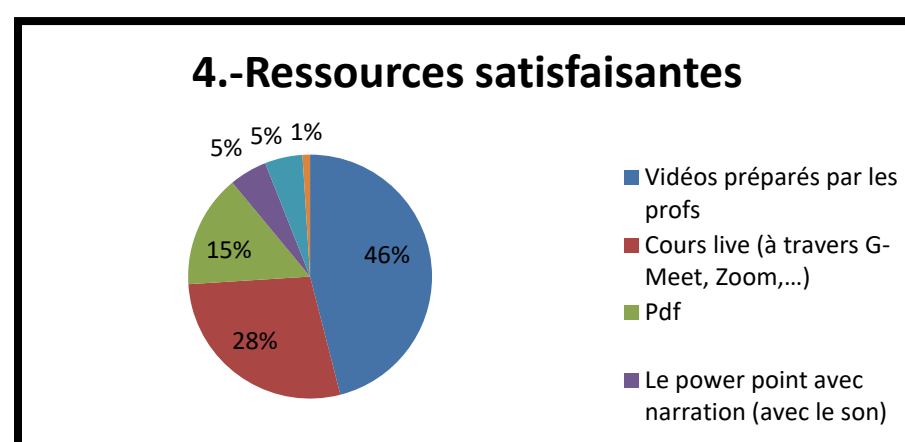


Figure 4. Students’ first choice of digital resources

It is striking from the chart that 68% of students prefer interactive and engaging learning. This remarkable percentage is very telling in the sense that it shows a great tendency toward the employment of technology in the teaching/learning process, especially when courses are delivered via visual aids. In the same line of argument, 46% of INSATE’s students responded to the question *what is the most convenient mode of distance instruction to you?* by showing a great inclination toward videos prepared by their instructors. While 28% prefer live courses delivered via different digital platforms. In actuality, it has been proven that the implementation of visual aids in education is regarded to be a powerful driving force toward an effective and engaging learning. Technology integration in the current millennium has become indispensable, particularly in the wake of COVID-19. In this sense, the majority of students in ENSATE favor visual-based instruction for their convenience and effectiveness in transmitting information, as well as making the journey of learning enjoyable, fascinating, and mainly integrating. Students who are exposed to an interactive learning through a plethora of visual aids tend to reinforce their creativity and imagination, as the central role of visual-based instruction is to tap on learners’ intelligences and critical thinking to bring out the best of them. In the same line of argument, ENSATE’s students favor videos and digital platforms for their effectiveness and applicability in channeling the information in a more consistent and congenial manner. The aforementioned way of learning makes the students feel comfortable and reassured since they learn on their own pace and way.

Online-based education can be a very promising and efficacious alternative to conventional teaching when it is well employed by education practitioners. Instrumental use of learner-centered tools that work emphatically to maximize interaction and participation leads to develop learners’ autonomy and reasoning. In virtual settings, teachers are not the center of the teaching/learning process anymore; students and teachers rather work together in a linear way to accomplish tasks and attain objectives. Likewise, students tend to opt for non- conventional ways of learning for its flexibility and practicability in course instruction. Students find themselves autonomous and self-governed when it comes to seeking information and raising topics for discussion and debate. Moreover, learners feel more comfortable with videos and web-based learning because they are not restricted with time and space as they can interact with their teachers and colleagues at any time and from anywhere (Arsham, 2020). Thus, remote learning has proven to be inevitable and beneficial in maintaining an engaging environment where both students and teachers are the building block of an effective and integral educational process.

4.2 Teachers

1) Have you already benefited from distance education training courses?

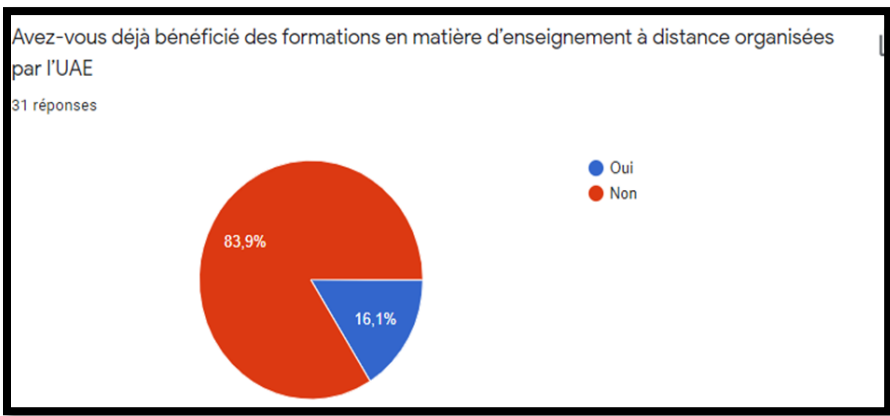


Figure 5. Previous training on distance education

It is surprising from the chart above that 83.9% of the participants responded to this question in the negative. In fact, this is not the case of ENSATE's teachers only, but it is the case of the majority of Moroccan instructors and education practitioners who received no or very little training on how to implement ICT in the teaching/learning process. In effect, research has made it clear that effective ICT skills training and convenient employment in classroom practices is mandatory and decisive to cope up with the new trends of the era, as well as to measure up to the requirements of a successful instruction. It is needless to mention the benefits and the key role ICTs play in the promotion and enhancement of education. ICTs have changed the conception of education over the globe. Their creditworthy and weigh in the process is highly recognized because not only it pertinently keeps students and their teachers on the same track with the same objectives in mind, but it has been demonstrated to be cost-effective. It is so because an appropriate use of technologies in education has proven to save time, energy, and money; especially for remote teachers and students who are obliged to travel to be on campus.

However, one cannot turn a blind eye on the different challenges and difficulties that teachers face in education technology integration. Teachers lack productive training on how to incorporate ICT in the teaching/learning process. To tell the truth, education governors neglect the importance of ICT training and the critical role it plays in course delivery. This, in turn, triggers hostility toward the take up of technology in course instruction. Teachers with no previous exposure to Information and Communication Technologies do not feel that they are in their comfort zone. This situation may cause embarrassment and intimidation to teachers when using ICT in course delivery. Insecurity and lack of self- confidence initiated by the dearth of congruous training are the most emerging impediments that may hinder a smooth and effective integration of ICT in education. Thereby, barriers to a proper ICT integration in education are believed to be due to the scarcity of quality training available for teachers.

2) *Are you satisfied with the quality of distance learning compared to face-to-face teaching?*

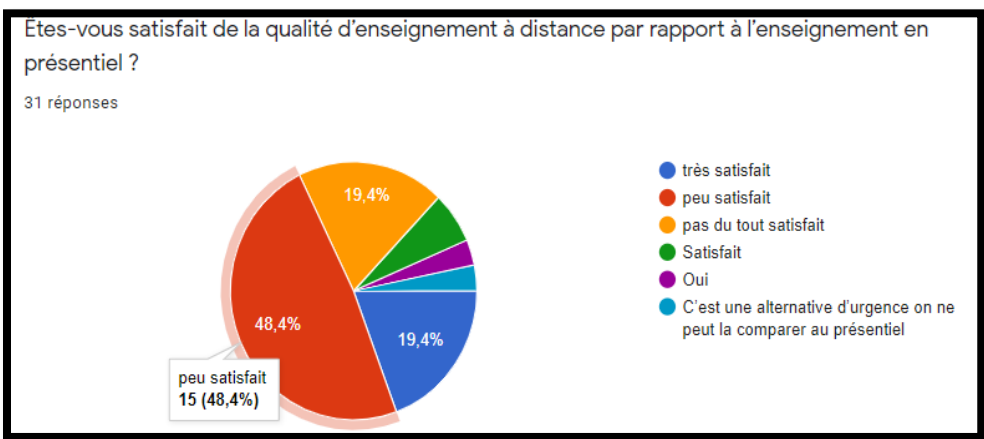


Figure 6. Quality satisfaction between distance education and face-to-face teaching

The chart above indicates that 48.4% of teachers are not really satisfied with the quality of distance education, while 19.4% are not content at all with this embryonic way of teaching and learning. However, only 19.4% of the instructors express their satisfaction with web-based instruction. Accordingly, the total rate of teachers who showed their displeasure with distance learning is 67.8%. Hence, the chart shows that a good number of teachers display their adherence to the conventional way of teaching and learning. They prefer to stick to face-to-face instruction rather than try something that they know nothing about. This hostility toward distance learning is attributable to the lack of exposure, and most importantly, lack of effective trainings on how to use digital tools in education. Teachers are not familiar with the new technologies and their inclusion in course delivery which contributed consecutively to rejection and resistance. In fact, the literature has proven that lack of self-confidence, skills, and knowledge in using technology are the most prominent factors behind teachers' resistance toward technology incorporation in course instruction (Al Mulhim, 2014; Arsham, 2020; Woolfitt, 2015; Clarkson & Toomey, 2001).

Indeed, the amount of proper in-service training strongly impacts teachers' attitudes and perceptions vis-à-vis education technology integration. It is worthwhile to mention that effective technology training is not restricted only to know how to use software and hardware in teaching; in-service training should rather be based on how to use technology in education with an appropriate vision of maintaining an effective pedagogy to deliver the content in a way that ensures the promotion of learners' meta-cognitive skills. An effective interactive education cannot be attained if no propitious training is provided. Technical assistance plays a pivotal role in making the teaching/learning environment enriching. Teachers who received effective training on the use of technology in teaching seem to be more enthusiastic about the take up of the journey. Nevertheless, teachers with no or little training would feel uncomfortable with ICT use in the teaching setting. In the case of ENSATE's teachers, the majority of them have declared that they received no previous in-service training which adversely reflects on their performance in a web-based instruction. Teachers lack self-assurance about their potent in dealing with digital teaching. This situation holds the teachers back from embracing the use of technology in course instruction as they avoid being intimidated and embarrassed in front of their students. The results, then, are not satisfactory for teachers and students either since this state of affairs restricts a successful educational process.

3) *Did you experience any difficulties in distance learning?*

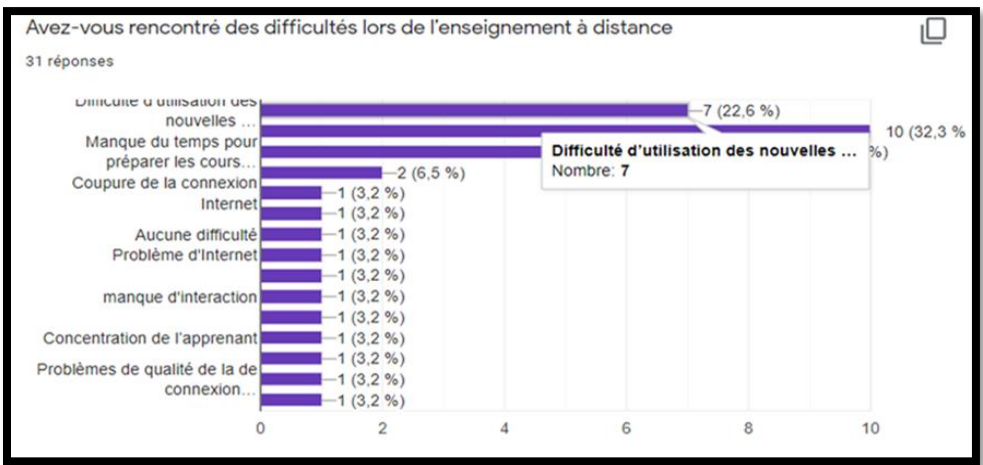


Figure 7. Difficulties in distance education

In this question, participants had the option to choose between difficulty in using new technologies, lack of digital infrastructure, and lack of time to prepare courses using new technologies; yet, other problems were reported by the participants mainly internet connection problems. 32.3% of teachers confirmed lack of time to prepare courses using new technologies, while 22.6% admitted their difficulties in using new technologies. Therefore, both choices insinuate to digital illiteracy. In fact, digital literacy in the educational domain is not limited to the competence of using computers in teaching and learning processes, but the concept encompasses a range of skills that are mandatory for an appropriate instruction, mainly the ability to create and process an adequate complete learning activity through digital tools. For instance, time to design an online course with sufficient multi-media content is a skill that should be developed through training and practice. However, with teachers who are unfamiliar with ICTs, concerns are raised regarding the skills to manage technology, which consequently limit teachers' performance within virtual classrooms. Accordingly, ICT can be considered as an obstacle for many teachers in an online environment; "a successful campus lecturer who can hold the attention of hundreds may not be as great when faced with technology" (O'Donoghue & Singh, 2001, p. 69). On the other hand, 29% of teachers displayed troubles with regard to technical internet problems, which obviously had affected their work. In fact, suitable accessibility to technical support is indispensable to realize a successful online course. In this case, it is the State and higher institutions' responsibility to ensure those technical supports. Hence, in order to meet the challenge of distance learning, teachers should reconsider their teaching skills in the light of the current necessities. Higher institutions, on the other hand, should provide their staff with technical expertise and trainings to fulfill their tasks appropriately and efficiently.

4) Any Remarks and/or Recommendations?

There is no doubt that the current pandemic COVID-19 has offered an opportunity for distance education to deeply infiltrate different domains in general and the educational system in particular as teaching and learning solutions. However, a reconsideration of this emergency teaching and learning situation is an unquestionable must. A national evaluation of this first experience should be carried out to identify the points of weaknesses, existing challenges, and good online practices. Thenceforth, the ministry of national education should develop a systematic long-term strategy for the implementation of online education in an appropriate way. This strategy should involve systematic teachers' competences reinforcement sessions that includes both technological and pedagogical modules. Actually, the training proposal was the most frequent request by the majority of teachers.

Government, officials, stakeholders, and policymakers should, on the other hand, open calls for education technology companies to develop educational platforms that offer both synchronous and asynchronous communication modes, with more evaluation resolutions and interactive spaces. More importantly, their efforts should be doubled to provide the entire population of educators and students with the basic necessary resources to conduct an online course. In the same vein, collaboration with national telecommunication companies is a necessity to provide a quality internet network with a low cost for teachers and students, or a complete free access to applied educational platforms by institutions. Accordingly, the present period is the suitable time to reconsider past practices in higher education generally, and during this pandemic particularly. According to Benhayoun (2020), we need to consider what he entitles the New Global University; mainly, a university that "preserves the tradition of academic excellence but also moves on to force ongoing traditions to accommodate newly devised approaches to education as dictated by the pressures and changes of the present" (para. 10).

5. Conclusion

In the present study, results reveal bona fide postures of ENSATE's professors and students toward distance instruction in the wake of COVID-19. The majority of professors and students were not satisfied with the quality of distance learning. In this respect, we can describe distance instruction in the current context as an emergency remote instruction form since it could not meet professors and students' pedagogical and educational needs. The aim during this emergency period was to provide access to instruction to every student with the accessible tools; however, a quality distance education necessitates a careful pedagogical structured design. In view of that, distance education is not yet institutionalized in an appropriate way in higher education in general, and ENSATE in particular. Distance education should not be perceived as a temporary urgent measure and solution; rather, it should be integrated into the overall education policy of each institution. Moroccan universities, on the other hand, can join forces nationally to re-think and re-design the future of distance education after COVID-19.

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