International Journal of Sciences: Basic and Applied Research (IJSBAR)

ISSN 2307-4531
(Print & Online)

https://gssrr.org/index.php/JournalOfBasicAndApplied/index

Is It Really Distance Learning? Reassessing the Interchangeable Use of Terms in Higher Education Institutions Amid Covid -19. Ibn Toufail University AS a Case Study

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Abstract

Covid-19 has unveiled the fragile foundations on which education stands, especially in developing countries like Morocco. This crisis has led Morocco to switch to another approach in teaching and learning, labeling it as “distance learning” or “online learning”. The present study attempts to explore the interchangeable use of terms used to describe the new approach, such as “distance learning”, “online learning” or “e-learning” that the Moroccan higher institutions use .It also tries to shed light on what is referred as “Digital literacy Training” of both students and professors given that such a training is often taken for granted instead of being taken as a need to boost the quality of education. Thus, a quantitative approach is adopted to examine this aspect through administering questionnaires both teaching staff members and students at Ibnou Toufail University. The study has revealed that what is called “distance learning” is just a crisis management technique to minimize the repercussions of the pandemic on the educational sphere, and that it is high time to redefine it as ‘Emergency Remote Teaching’ ERT in a bid to upgrade it to be an online teaching/learning. ‘Digital literacy Training’ has proved to be a key factor to guarantee a suitable digital transformation in Moroccan universities.

Received: *5/19/2023*
Accepted: *6/28/2023*
Published: *7/8/2023*

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Keywords: Distance learning; digital literacy; Emergency Remote teaching; education quality; Virtual instruction.

1. Introduction

The Covid-19 pandemic has revealed the fragile foundations on which education stands, especially in developing countries like Morocco. Both teachers and students are at loss as to how to manage the teaching-learning process. The crisis has also revealed new challenges that the public institutions are likely to face in the future. Thus, many debates have taken place about alternatives to traditional approaches of teaching and learning. Many terms have, therefore, surfaced to describe non-traditional approaches of instruction, namely E-learning, distance learning, online learning, remote learning, web-based learning, etc. The present study attempts to explore the use of a plethora of terms to describe the new approach of instruction and show the necessity to redefine our methods and techniques in order to avoid the "errors" that would make us vulnerable along the way [1].It also tries to shed some light on the vital role of digital literacy in defining the type of instruction provided to students and how it impacts the quality of teaching and learning.

1.1. Conceptual framework

The study aims at providing a conceptual framework to identify the differentiating features of each type of virtual instruction that have been used or confused with other non-traditional kinds of instruction. Thus, this section will distinguish the key architypes that show similar characteristics and differences in terms of lesson design, teacher and students' roles, and highlight some of the pitfalls to which they fall prey.

Several terms are used to describe the new kinds of learnings that have been substituted for face-to-face classes. However, the terms have been used interchangeably, which has resulted in the lack of clear description and/or definition of each of the types that are opted for to replace face-to-face classes. Thus, to this effect, the present study will examine different versions of instruction, starting with blended learning/teaching.

1.1.1. Blended learning

Blended learning is usually described as a "new normal" educational alternative that was introduced in the countries that were first hit by the Covid-19 pandemic. It emerged in the last decades; it is promoted mainly when there is high number of students and makes it possible for learners to comprehend and understand what is presented (2,3,4,5). According to the author in [6], this blended learning is not a simple mixture of traditional and online teaching methods; instead, it provides additional online activities to a pre-existing traditional course in a "planned", "thoughtful" and systematic pedagogical manner.

However, these definitions are still fuzzy and ambiguous, given that they all focus on the importance of planning and arranging these activities within a setting of blended learning. In this respect, the authors in (2, 7) among others have distinguished between three types of blended learning: Low-impact blend, Medium-impact and High-impact blended learning.

Low-impact blend refers to the quality of adding extra online activities to a traditional course without removing any intended traditional activity. This model allows teachers to save efforts of re-arranging the lesson's objectives and stages. Even with this low-impact blend, instructors need to have considerable technological knowledge in order to select the best technological methods to help learners achieve a certain pedagogical goal. Moreover, this type of blended learning allows students to improve their abilities to use suitable technological devices in different parts of learning (exploration, analysis and production). Yet, this blend might make students tired of the heavy workload, especially if the traditional and e- activities are not "blended-well" [2].

Medium-impact blended learning or "Course level blending" is the one that substitutes some virtual activities for traditional ones [8]. It is mainly about planning activities effectively through implementing them virtually, taking into consideration "time blocks so that they are sequenced chronologically" but not overlapping [8:12]. This kind of "blending" allows instructors to experience different types of educational technologies without losing the "benefits" of face-to-face courses. Instructors, however, need to have basic knowledge on how to use technological tools to facilitate students' learning and design suitable activities likely to meet the course objectives. This takes place; for example, in the form of blackboard collaborative sessions or discussion board to allow participants to initiate discussions online using audio or video clips. Moreover, identifying the elements and/ or activities that could better be carried out virtually instead of face-to face activities is also crucial in this process in the sense that 'medium- impact blending' offers a kind of flexibility and various options to engage learners in learning activities [8].

The instructor in "high-impact blending" takes a "radical" approach changing the whole teaching plan to fit students' objectives and determine the most efficient way to deliver the content by selecting the most effective "blend of technologies" (3,7,8). This kind of blended instruction offers the possibility to reduce or eliminate some problems that pre-existing lessons might pose. High-impact blended learning, therefore, seeks to fix the traditional methods' shortcomings through balancing the two approaches in a smooth and coherent way. Nevertheless, unlike the previous types, this one requires a great deal of technological knowledge. It might also make things more complex for teachers who may put too much pressure on their students while redesigning their courses (3,7,8).

1.1.2. Distance learning

Another term that is used interchangeably to describe virtual instruction is distance learning; it refers to the quality of offering learning access to students, despite the separation of learners and instructors due to geographical distances [9]. This kind of learning is mediated by any print or technological form such as instructional television, current interactive technologies, radio, audiocassettes, printed materials, etc. It used to be appealing to people during the last century, especially with the rise of radio and television (9,10,11). Moreover, distance education allows learners to have a certain "content flexibility to contend with competing priorities" [11:3]. In this connection, the author in [11] illustrates that in distance learning the teacher becomes a facilitator that supports students rather than a "sole source" of knowledge; students also become actively engaged in what and how knowledge is shared. Collaborative efforts are; therefore, needed to carry out this type of instruction; i.e. the learning process proceeds "as knowledge building among teacher and students" [12:342].

Although, technology is part of distance education, the educational program needs to focus on students' instructional needs instead of technology per see an aspect that has often been neglected. It should take into consideration learners' ages, cultural and socioeconomic backgrounds, experiences and interests, educational level and their degree of familiarity [11]. Furthermore, teacher's confidence, experience and flexibility and creative use of media and equipment so as to maintain a high degree of interactivity with students is an important factor to carry out a successful distance teaching [12].

In spite of its reliance on instructional technologies, distance learning lacks what is called "two-way communication" between teacher and students; and this very fact constitutes a major pitfall of distance learning, since students are in need of constant and rapid feedback [12]. Yet, it does not have a standard for and can, thus, be developed in "accordance with local resources, target audience, and philosophy of the organizations that provide the instruction" [12:340]. In addition, knowing students "personal characteristics" is crucial in planning courses for distance learning, for this fact boosts program planning and policy formation in order to guarantee a successful distance learning [11].

1.1.3. E-learning

It is important to examine two conflicting terms that are often confused, namely e- learning and web-based learning. The former is often confused with computer-based learning, technology-based learning or computer-based training [13]. This term dates as far back as 1980s, and emerged from a "parallel concept" of e-mail, which means transmitting "mail" via networks and computers (14,10) .

Another definition of e-learning elucidates the importance of computer for medial support and the construction of knowledge, focusing on the individual's "experience, practice and learner's knowledge. Information and communication systems, whether networked or not, serve as specific media [..] to implement the learning process" [15:274]. This definition suggests that e-learning relies mainly on the constructivist model which emphasizes the idea that the learner should construct the knowledge by themselves, and it obviously should be initiated and guided by the instructor [15].

E-learning is thought to be a natural evolution of distance learning, "which has always taken advantage of the latest tools to emerge in the context of technologies for structuring education" [15:146]. This very fact suggests that the key difference between the two is about doing things differently and identifying models and practices that ensure an effective use of such kind of learning and teaching. However, the author in [16] states important features of this kind of instruction based on the factors of increasing productivity, streamed content over the web, connected with the thinnest internet connections and obviously the content has to be low cost and high profit.

1.1.4. Web-based learning

The term web-based learning is used synonymously with e-learning. Both of them include online course content. Web-based learning, however, is more associated with readily accessible-computer content. Unlike face-to-face learning, web-based learning "cannot teach" on its own; it just functions "as another form of

learning delivery tool" [14:8]. The content of web-based education may be on the web mediated by a web server, or simply installed on a CD-ROM or the computer hard disk (14,17,18).

Web-based learning could come in the form of discussion forums via e- mail, video conferencing, video streaming or printed course materials in static pages [17].The authors in [18:5] have highlighted the features that construct this learning environment, starting with "setting up computers for learner use, preparing new learning materials and converting existing materials, creating quizzes, setting up classes and mailing lists, drawing or scanning pictures, digitizing video and developing audio files". When the phase of developing materials is finished, they can be stored in various forms, such as, HTML pages, audio files, graphics or videos, etc.

When web-based learning is accessible within a "core application", it can be qualified to be labeled online learning; however, having to search for "opening a separate application to access materials does not qualify as online learning since the materials are not readily accessible", on the one hand [14:3]. On the other hand, if we compare it to distance learning, the instructor designs the materials, but s/he is not involved in any "further education of students. Yet, this can be part of distance learning "if the instructor (or instructing institution) obtains educational responses from the students and reacts to them with adequate educational responses" [14:3].

Like other types of non-traditional education, web-based learning has witnessed innovative and diverse changes, a fact which has made it possible for it to involve a variety of methods and technologies, such as the use of graphics, animation, multimedia elements, etc. Despite the various techniques that can be implemented, the instructor needs to be knowledgeable about computer-based learning to set out an 'effective' learning environment [14]. As it has been the case with the previous types of non-traditional approaches to learning, students and instructors who opt for web-based education are in need of some kind of training to fully benefit from this kind of learning environments and their resources, given that web-based learning takes into consideration learners' diversity in terms of experience, skill, ability and attitude, through providing different ways to maintain equal opportunities for all learners to learn in "their own pace" [18].

1.1.5. Online learning

It goes without saying that all these terms have one thing in common_ the use of a computer "connected to a network that offers the possibility to learn from anywhere, anytime, in any rhythm, with any means" [19].It, however, argued that online learning is an improved version of distance learning; it is a "recent version of distance learning which provides access to educational opportunities for learners described as both non-traditional and disenfranchised" [10:2].

Considering the separation of learner and the instructor, online education allows synchronous and asynchronous exchange within a communicative network (20,21). Synchronous online learning offers students a flexible environment through the use of streamed prerecorded audio or video lectures, audio podcasts, discussion groups, blogs, etc. Synchronous online instructors try to re-envision the traditional setting of learning through using the same methods online, thus, leading to interactive classes, by permitting "real time sharing of knowledge and learning and immediate access to the instructor to ask questions and receive answers" [22:71].

Online learning, it is often argued, is more about engaging students in an innovative and flexible way [23]. It grants students the possibility to learn and interact with professors through attending live lectures and getting instant feedback. This kind of synchronous learning can replace face-to- face environments, in so far as it provides another virtual setting for 'social interaction', and can communicate with experts from the field and access "up-to-date" resources.

Thanks to its flexibility, online learning enables learners to trespass time and space, but that can be possible only with well-designed materials, "adequate" support and authenticity [24]. The author in [24] also put more emphasis on the idea that online learning must implement activities that allow students to link new and old information, as well as activities depicting "real-life models and simulations" in order to enhance a "meaningful knowledge" to ensure learning quality. Thus, online learning is not only about the computer, since it is a tool to deliver the instruction to learners, but also and mainly about how students interact with the designed models and simulations [24]. Online learning is; therefore, not just about the accessing to learning materials through the internet; it is about interacting with the content, instructor and fellow learners as well.

Despite the success of online instruction in many contexts, especially in higher education, a special "expertise" or "training" is still needed. Many studies have raised this issue; students and instructors alike are in need of a certain training to feel confident in this environment (25,26).

1.1.6. Digital literacy

Everyone has come to believe that the pandemic has changed the way we view education and the situation will never be the same. The poor infrastructure of the educational system and lack of access to the internet in rural areas have made it tough to even dream about online learning. However, even in the case of Moroccan universities, which are more or less relatively equipped with certain technologies, the quality of teaching and learning has not necessarily improved; and this is certainly true to the serious lack of digital literacy training, knowing that such digital literacy has proved to be an important competency at this era and under these circumstances [27].

This kind of training is considered a "foundational competency"; it offers the possibility to "embrace the economic and social drivers of the future [..] digital literacy is both inseparable from the liberal arts of today and fundamental to modern reading, writing and arithmetic" [28:86]. More precisely, digital literacy permits the selection of what is authentic and interesting and to acquire the necessary skills to share this information through technological devices, such smartphones, tablets, laptops, etc. The author in [29] defines it as:

the ability to succeed in encounters with the electronic infrastructures and tools that make possible the world of the twenty-first century. (it) has become a central enabling agent in the educational enterprise as a result of a number of trends. [..] Electronic devices and facilities now underpin the practice of most sectors of society and most human activities. Those who can understand and comfortably use e-facilities are significantly empowered and advantaged, in terms of educational success, employment prospects and other aspects of life [29:1].

Possessing such kind of skills would enable individuals to effectively utilize the electronic infrastructure; thus,

enjoying more privileges in various aspects due to the pervasive influence of technology in our contemporary society. Moreover, since there is an urge to opt for "student-centered educational models" in higher education, the importance of digital literacy is key [29]. When we talk about digital literacy, we do not mean ICT literacy, with the latter having emerged before the rise of digital world. Thus, digital literacy is mainly about:

the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action and to reflect upon this process [29:155].

The above definition suggests that digital literacy is the ability to combine a set of competencies to use them in different situations. However, it is crucial to draw attention to what is called "academic digital literacy" which is very different from personal use of technology, since the academic one relies on formal education, respecting the "scientific criteria" of each field [(28,30).

As it has been agreed upon, even with the rise of digital technologies, there is the absence of what is called "digital training". Although, as the authors in [28] argue, training higher education students in these competencies should be a sine qua non, they are often taken "for granted". Consequently, many institutions, if not all of them, have opted for basic solutions or "low technology solutions" to support the online instruction, including PowerPoint, pdfs, and freeware, such as Google classroom, Moodle, Edmodo and Facebook.

If it all something can be deduced from this, it should be that what we witness is not a transition to online learning, but rather; it is just a kind of attenuation of the impact of the pandemic on education, given that we still lack what is called "online pedagogy" [28].

Blended or sole "online offering" is one way of controlling the impact; the term "online offering", introduced by the authors in [31], suggest that even when an online content is provided, we cannot be sure of whether learning is taking place or not. It is, therefore, better to be cautious in terms of choosing the right label.

2. Methodology

The purpose of the present study is to explore the interchangeable use of a variety of terms destined to describe the non-traditional approaches amid the Covid-19 pandemic.

The previous section has showed that there are many terms used to describe the new approaches that the Moroccan higher educational institutions have adopted, and that each of these terms has its own specifications and characteristics. Thus, a quantitative approach was adopted to get insights into this aspect and provide a suitable label for the different virtual practices adopted by Moroccan higher education institutions. Also, this design is useful in the sense that it allows us to discover the aspect of "digital literacy" training among the teaching staff and students as key factors in the success of any kind of teaching/ learning "virtual instruction" approaches.

2.1. Data collection

This study opted for a quantitative approach since it ensures "objectivity", generalization and reliability of the findings [32]. Two kinds of surveys were designed: the first one targeted university instructors, and the other targeted the students at Ibnou Toufail University. The surveys intended to explore instructors' and students' frequency of dealing with non-traditional approaches to learning as well as the extent of their competency in dealing with digital technologies. In light of their responses, we were able to deduce the types of learning they were engaged in.

2.2. Sampling

This present study adopted a non-probability sampling, since it allows researchers to select participants based on availability and willingness to take part in the survey [32].This sampling approach was the most suitable, given that the surveys were shared online with professors and students [32].

2.3. The instrument

The instrument (the questionnaire) was designed and were distributed using Google Forms. The surveys included 24 questions for instructors and 27 for students; both surveys were composed of two types of questions. The first type of questions were close-ended questions related to gender, age, average hours spent in 'non-traditional' education, etc.

The second type of questions were open-ended questions whereby participants were asked about the easiest, most challenging methods to carry out non-traditional education, etc. Students, in contrast, were asked about the platforms that they would like to change, and difficulties that they faced in coping with this kind of learning, the effective and non-effective aspects of traditional learning.

2.4. Data analysis

When the surveys were administered, the researcher received 50 valid responses from the teaching staff, and 100 valid responses from students.

The data was collated using EXCEL spreadsheet and the open codes were categorized based on similarities between them and ultimately displayed into figures and tables. General statistics were performed on the close ended questions. For few questions, more than one choice could be selected.

3. Results

3.1. Instructors

3.1.1. Demographic information

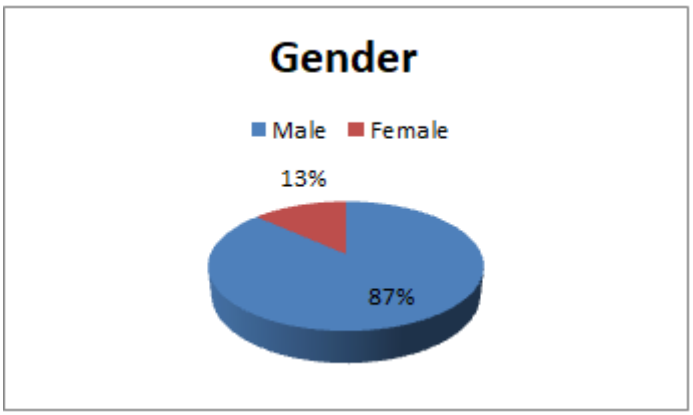

Figure 1: Gender.

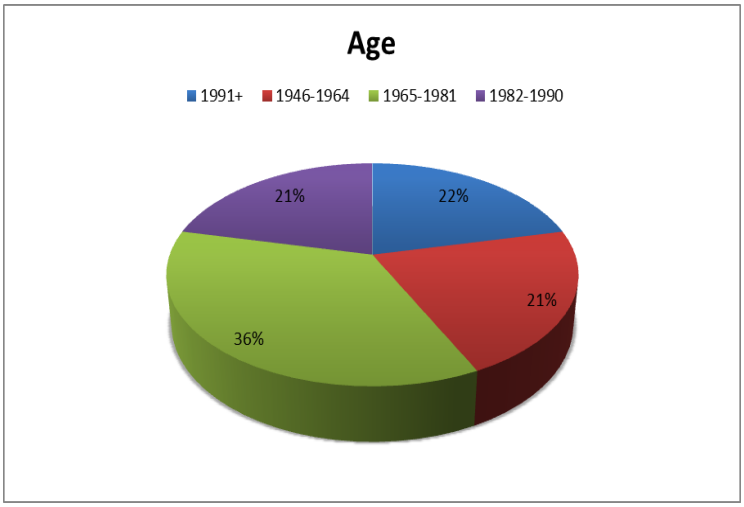

Figure 2: Age categories.

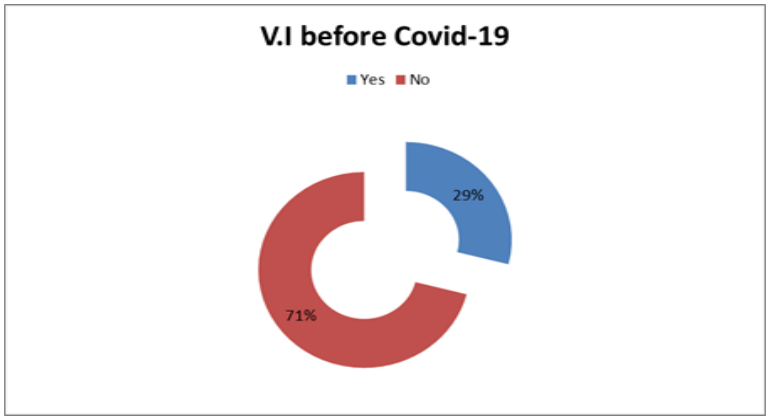

Figure 3: Virtual instruction before Covid-19.

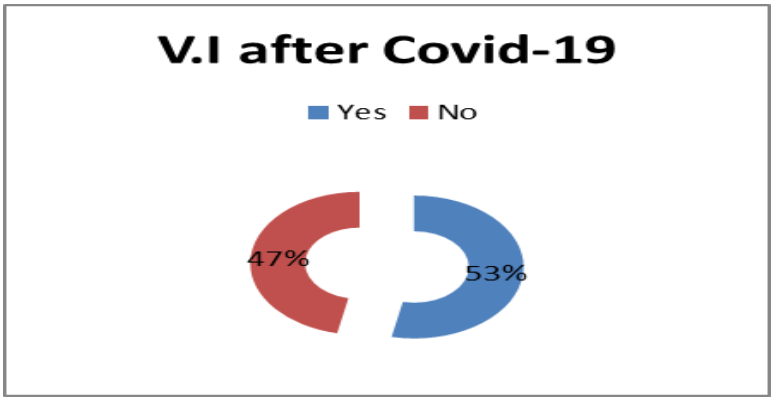

Figure 4: Virtual instruction after Covid-19.

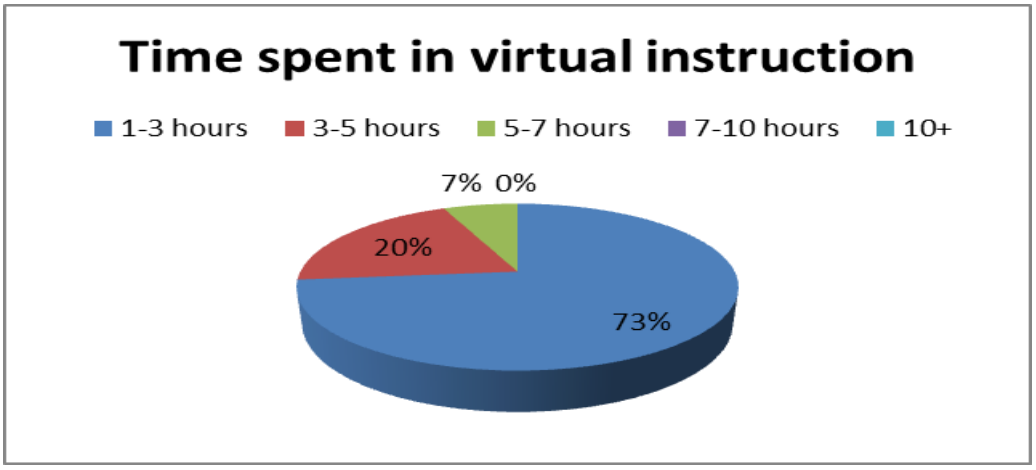

Figure 5: Average time spent in virtual instruction.

3.1.2. Rating web skills

Table 1: Rating web skills.

Rating	Poor	Average	Good	Excellent
Computer literacy	3%	13%	73%	11%
Digital literacy	3.4%	26%	59%	11.6%
Web search skills	1.3%	20%	66.7%	12.2%
Information literacy	0%	1%	86%	13%

3.1.3. The platforms used to deliver lessons

Table 2: Platforms used by the instructors.

App	Kah -oot	Google Meet	Micro-soft Teams	Google classroom	Zo -om	Edmo -do	Face-book	Whats App	University platforms
Percentage	0%	34%	13%	21%	13%	0%	6%	6.7%	6.3%

3.1.4. Instructors' interaction with students

When the instructors were asked about the apps and platforms they use to interact with students and answer their inquiries: 40% stated that they use WhatsApp, 13.7% use Google classroom, 12% use Emails. However, 6.6% stated that they prefer receiving inquiries during the delivery of the lesson, 13.3% prefer that those questions be asked at the end of the session.

3.1.5. Checking students understanding

Participants were asked about the techniques that they use to check students understanding: 38% revealed that they use CCQS comprehension checking questions, 30% use formative assessment (quizzes); 13% said that they opt for discussions by posting problematic questions and let students discuss.9,9 % claimed that they just ask students if they have questions, if not they move.

3.1.6. Major challenges

Respondents in this study stated that they have encountered several challenges dealing with the new educational approaches, the major of which are the following: The first challenge pertains to addressing an ambiguous and unknown audience: "not sure if there is anyone on the other side" is the response that one of the participants used to describe his worries about the lack of interaction among his students. The teaching staff members also were concerned about choosing the right method to deliver the lesson; saying that they were not sure whether students afforded or felt comfortable with the chosen method or whether they could afford to use the platforms they suggested. Another crucial issue was revealed by several participants who claimed that they did not feel confident using difficult platforms to interact with their students, especially that they could not keep up with their digital competency since they belong to generation Z after all.

3.2. Students

3.2.1. Demographic information

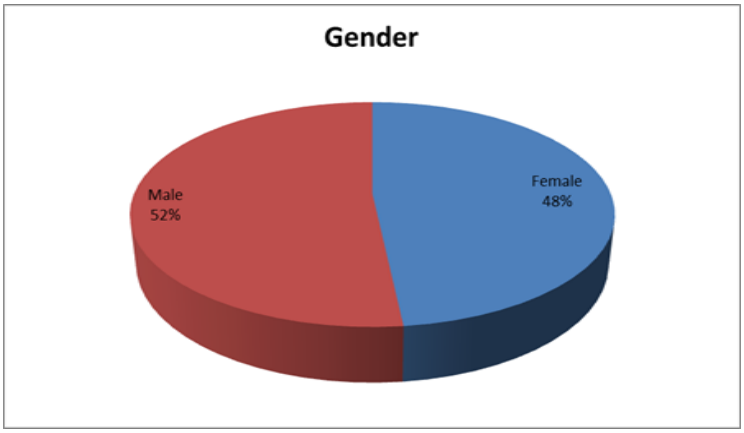

Figure 6: Gender.

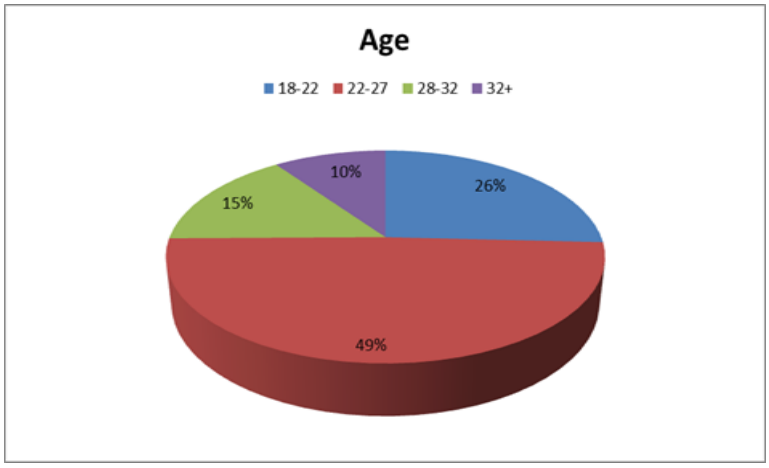

Figure 7: Age categories.

The participants who took part in the survey consisted of 53% graduate students, 30% undergraduate students and 17% doctoral students.

3.2.2. The experience of virtual learning from the perspective of students

Table 3: The experience of virtual learning.

	Experience with VL before Covid-19.	Experience with VL after Covid-19	Difficulty in using online platforms:	Appreciation of methods used by their professors
Yes	43%	79.3%	10.3%	37.9%
No	59,9%	20.7%	70.7%	39.7%
Not sure	-	-	19%	22.4%

2.2.3. Average time spent in virtual learning

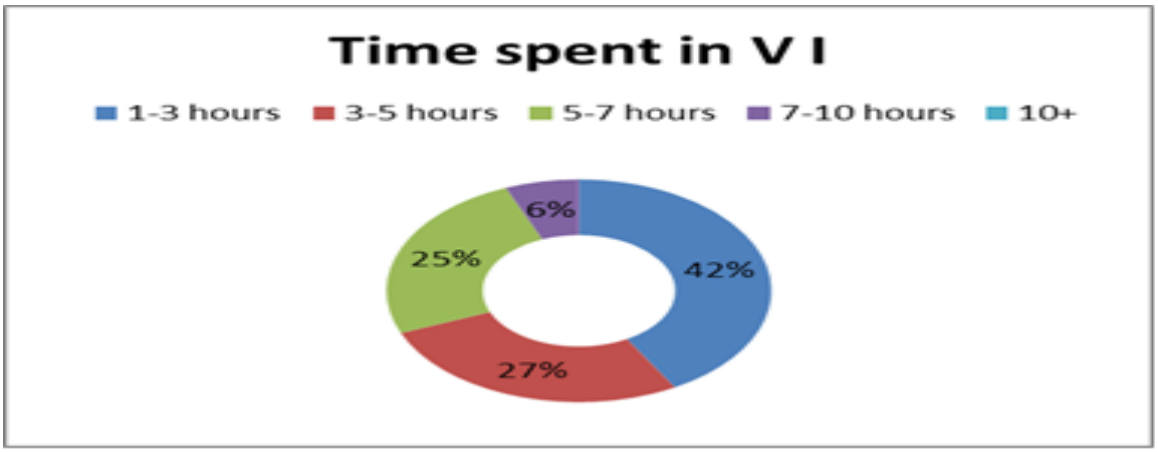

Figure 8

2.2.4. Digital and computer competencies

Table 5: Rating digital and computer competencies among students.

Rating	Poor	Average	Good	Excellent
Computer literacy	3.4%	22.4%	37.9%	36.2%
Digital literacy	10.3%	25.9%	37.9%	25.9%

Table 6: Platforms appreciated by students.

Platform	*Kahoot*	*Google Meet*	*Microsoft Teams*	*Google classroom*	*Zoom*	*Edmodo*	*Facebook*	*What App*	*University platforms*
Percentage	8%	15%	25.9%	27%	19%	2.4%	1.7%	1.7%	1%

2.2.5. Students' interaction

The participants were asked about how often they interacted with their instructors, 31% stated that they rarely interacted with their professors. 22.4% stated that they sometimes did interact, 15% said that they usually engaged in discussions with the instructors. 18 %, however, stated that they never interacted in any way with their instructors. Yet, when they asked about the ways they prefer to inquire about something, 34.5% said they preferred to do it during the lecture; 27.6% preferred to post their questions in the chat box; 10. 3% preferred to send their inquiries privately. Yet, 10% stated that they simply did not ask any question.

2.2.6. Virtual learning effectivity

When students were asked about how effective this new learning was, 41.4% believed in its effectivity, because it was anxiety-free, time- efficient and more convenient owing to the use of visual aids. They also stated that this kind of learning allowed them to become more autonomous learners. However, many respondents stated that it was effective as long as it was only a "temporary solution".24% of them, on the other hand, believed that it was not effective; they thought that there was no quality learning. They also stated that they could not focus because of the lack of interaction and lack of feedback between them and their professors.

A striking statement by some respondents claimed that this shift to online education required effort on the part of the learner and the teacher alike to "fully take advantage of it", it is something new to which people are not used and cannot keep up with it being constantly changing. Moreover, many students claimed that the workload increased significantly compared with the traditional learning environment; more assignments were given, a fact which made the learning process "tiring' and stressful".

When participants were asked about things they would like to change, 54.7% of the students stated that they would like to implement more interactive "vivid" methods to make students focus more.

2.3. It is neither distance learning nor online learning

The survey findings revealed many contradictions and serious issues related to the new educational approaches in Moroccan universities. The study explored the methods that professors adopted and how students perceived such changes in Ibnou Toufail University. This exploration has allowed the researcher to deduce the common characteristics of non-traditional approaches of teaching. Selecting the right term to describe the new alternative is quite crucial and would allow us to refrain from using terms that do not depict the reality in each university loosely and interchangeably. Furthermore, it is better to take into consideration the practices that were adopted to cope with the new challenges of education amid the Covid-19 pandemic, in order to identify suitable alternatives that effectively address the needs of students and the instructors alike.

4. Conclusion

The present study has defined some key terms that are used interchangeably to describe the new instruction and learning in higher education institutions amid the Covid-19 pandemic. It has also suggested a more appropriate term (i.e., "Emergency Remote Teaching/learning") to describe this kind of instruction with the purpose of rethinking the educational system in Moroccan universities. Besides, this study has highlighted a core element in the process of improving the quality of education: "digital literacy training".

Distinguishing terms is the first step in switching to a new educational paradigm that embraces educational technologies. We, therefore, put forward that the best term to be used is "Emergency Remote Teaching" ERM or "Emergency Remote learning". This term has been gaining much attention recently to describe the instruction that has been delivered since the pandemic outbreak [33, 34, 1]. This term is the most suitable one to label this kind of instruction; it is a "crisis management technique" that has been available since the pandemic outbreak. The author in [33] explained that "the primary objective in these circumstances is not to re-create a robust educational ecosystem, but rather to provide 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" [33:7]. Thus, what these institutions have been opting for, is not suitable to be long term shift to virtual instruction, rather it is just a temporary option to minimize the repercussions of the pandemic on the educational sphere.

Thus, our educational policies should be reconsidered to narrow the gap between the first and third world countries where the implementation of these new educational approaches has made tremendous headway and have gone beyond the trial-and-error phase [35]. We can do that through choosing the right terms to describe our practices amid Covid-19 crisis; reflecting on three years of adapting to this experience is a central step to reset our techniques and approaches.

Therefore, "digital literacy training" has proved to be a crucial skill that needs sharpening at this very time for both instructors and students. . With digital literacy, individuals would can effectively communicate online, retrieve information and critically evaluate digital resources. Moreover, digital literacy measurement serves as a valuable tool for policy makers "to benchmark their country's level of skill against an international norm, if the same standards are accepted internationally" [36:3]. By adopting internationally accepted standards, policy

makers can assess their nation's digital skill diffusion and identify areas for improvement. Such training would also enable us to upgrade the emergency remote learning to an online learning that grants full interaction between students and professors. It will, moreover, allow us to assess the digital competency among students and teachers to implement suitable digital transformation for the educational sector , which is, indeed, in need of such skills that would not only contribute to sharing knowledge, but also create an economic transformation for both teaching staff and students to fully benefit from digital services [36].

The main objective of the present study was to examine the various virtual practices employed by instructors and students in the Moroccan universities and determine a suitable term to describe these practices, with a specific focus on avoiding the interchangeable use of terms such as distance learning, online learning, web-based learning, etc. However, it is important to shed light on certain limitations that should be considered when interpreting the findings. First, due to time constraints, the study was unable to extensively investigate the impacts of the loose choice of terminology on students, specifically in terms of how it influences their perceptions of new learning environments. Understanding these impacts could provide valuable insights into how students engage with and navigate remote learning experiences. Second, the study primarily employed a quantitative approach which provided valuable insights into the virtual practices utilized by instructors and students; yet, adopting a mixed methods design would have allowed for a more comprehensive examination of these practices.

By incorporating mixed methods design, the researcher would have been able to delve deeper into the concepts related to remote instruction and identify areas for improvement to better meet the needs of both students and instructors. Despite these limitations, the study has highlighted the need for future research to explore the specific impacts of the interchangeable terminology related to virtual instruction on students' perceptions, as well as the potential benefits of incorporating digital literacy training to improve the quality of remote learning.

Acknowledgements

I would like to express my gratitude to Professor Moulay Sadik Maliki, for his immense efforts and guidance. My special thanks are also extended to the teaching staff members and students who took part in this study.

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