

Distance Education and Moroccan Universities: A Content Analysis of Students' Attitudes towards Operability, Practicality, Familiarity, and Gratification



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Abstract: E-learning readiness is an important part of distance education as it is related to the success of e-learning initiatives. As e-learning gains popularity in many Colleges and Universities worldwide, especially during this pandemic time, the evaluation of e-learning readiness is critical for the successful implementation of e-learning as a platform for various learning environments. Policy makers and institution authorities have to be aware of the degree of e-readiness of any given population in order to design and implement efficient e-learning programs, and since students are one of the key elements during the implementation of e-learning systems, having an idea about their readiness and acceptance of e-learning is the first element to account for. This paper reports on a study that was carried out to determine the e-readiness of the English Studies' department students at different Moroccan universities. A 32-item e-learning readiness questionnaire adopted from Akaslan and Law (2011) was used. The results show that Moroccan EFL university students are ready for e-learning, though not with a striking high level, which is a good indicator of successful e-learning. Still, there are other rudiments that should be taken into account for better results.

Keywords: E-learning, Students' readiness, Higher Education, Technology, Training.

التعليم عن بعد والجامعات المغربية: تحليل محتوى مواقف الطلاب تجاه التشغيل والتطبيق العملي والألفة والإشباع

ملخص الدراسة: يعد الاستعداد للتعلم الإلكتروني جزءاً هاماً من التعليم عن بعد لارتباطه بنجاح مبادرات التعلم الإلكتروني. مع اكتساب التعلم الإلكتروني شعبية في العديد من الكليات والجامعات في جميع أنحاء العالم، خاصة خلال فترة الوباء هذه، يعد تقييم جاهزية التعلم الإلكتروني أمراً بالغ الأهمية للتنفيذ الناجح للتعلم الإلكتروني كمنصة لبيئات التعلم المختلفة. يجب على واضعي السياسات والسلطات المؤسسية أن يكونوا على دراية بدرجة الاستعداد الإلكتروني لأي مجموعة سكانية معينة من أجل تصميم وتنفيذ برامج التعلم الإلكتروني الفعالة، وبما أن الطلاب هم أحد العناصر الأساسية أثناء تنفيذ أنظمة التعلم الإلكتروني، إن الحصول على فكرة عن مدى استعدادهم وقبولهم للتعلم الإلكتروني هو العنصر الأول الذي يجب أخذه في الاعتبار. تتناول هذه الورقة دراسة أجريت لتحديد الاستعداد الإلكتروني لطلبة قسم الدراسات الإنجليزية بمختلف الجامعات المغربية. تم استخدام استبيان الاستعداد للتعلم الإلكتروني المكون من ٣٢ بنداً المعتمد من (Akaslan and Law (2011). وأظهرت النتائج أن طلاب الجامعات المغربية في مجال اللغة الإنجليزية كلغة أجنبية جاهزون للتعلم الإلكتروني، ولكن ليس بمستوى عالٍ ملفت للنظر، وهو مؤشر جيد على التعلم الإلكتروني الناجح. ومع ذلك، هناك أساسيات أخرى ينبغي أخذها بعين الاعتبار للحصول على نتائج أفضل.

الكلمات المفتاحية: التعلم الإلكتروني، جاهزية الطلاب، التعليم العالي، التكنولوجيا، التدريب.

● INTRODUCTION

With the rapid growth and popularity of the Internet, distance education, also known as Online learning, virtual learning, distributed learning, network and web-based learning, computer mediated instruction or e-learning, has also grown rapidly, as institutions of higher learning have sought to keep pace with this new technological capability and the rapid growth in acceptance of these technologies by many students. Large numbers of higher education institutions have

been offering online courses or programs to working students who can't make it to their classes, and this growth has continued at a rapid pace (Allen & Seaman, 2013). Such online academic offerings bring many benefits to learners (Carr, 2000; Mayes, Luebeck, Ku, Akarasriworn, & Korkmaz, 2011) such as flexibility, convenience, affordability, and applicability. Recently, with the outbreak of the Covid 19 pandemic, e-learning has become the sole worldwide solution to achieve a continuity of education, not only at the tertiary level, but at all educational levels, be they public or private. However, along with this fast abrupt expansion of e-learning, numerous challenges also accompany the efficiency and success of such measure imposed on by the global crisis with no pre-hand training for most of students, professors or institutions.

● REVIEW OF THE LITERATURE

A review of the scientific literature resulted in numerous definitions of e-learning. For instance, Rosenberg has described e-learning broadly to include any system that 'generates and disseminates information and is designed to improve performance' (Rosenberg, 2001: 11). Other researchers gave more specific definitions such as Welsh, Wanberg, Brown, and Simmering (2017) who defined e-learning as "the use of computer network technology, primarily over or through the Internet, to deliver information and instruction to individuals" (p:246). Wentling (2008) also defined it as the acquisition and use of knowledge distributed and facilitated primarily by electronic means. Other definitions stress the fact that e-learning provides us with access to resources that promote learning on beyond the limitation of time and place, and therefore is more attractive to learners because

of its flexibility. (Arbaugh and Duray, 2002 ; Holmes and Gardner 2006). Therefore, while the definitions of e-learning may vary, they all define e-learning in terms of technology and agree that e-learning provides a rich flexible integrated environment. These characteristics explain why a variety of institutions are entering the distance learning arena rapidly since the 1980s (Jones, 1997). E-learning has even become an integral part of many educational programs even those which are classroom –based courses.

Still, employing e-learning is not an easy task, and many pedagogical institutions take things too lightly which results in serious problems due to their unfamiliarity with requisites of e-learning. Before implementing any sort of E-learning, one should remember that “Distance education is planned learning that normally occurs in a different place from teaching, requiring special course designs, instructional techniques, communication through various technologies, and special organizational and administrative arrangements” (Moore & Kearsley, 2008, p. 2). Adopting E- learning concerns not only the teaching and learning environment, but it leads to the development of new cultures, concepts, and understanding. Consequently, the introduction of an alternative form of learning can alter and raise expectations among users and institutions alike. (Bandalaria, 2007).

Assareh and B. Hosseini (2011) suggest four kinds of barriers to e-teaching and e-learning which are learners, teachers, curriculum and school. These are the key elements for adapting and implementing, facilitating and using e-learning networks and platforms in any learning environment. Consequently, In order to reduce the risk of

failure and increase the chance of success in the adoption of e-Learning, a tool for measuring the readiness of these four above mentioned factors along the critical factors in implementing an e-learning environment is proposed.

- **E- Learning Readiness**

It is generally defined as the ability to make use of the opportunities that facilitate the use of e-resources such as Internet for the sake of getting and transmitting information (Choucri et al., 2003). E-learning readiness concerns both individuals and institutions. This study focuses of the students and how prepared they are for distance learning; and according to Borotis and Poulymenakou (2004), being prepared means “being mentally and physically ready for certain online learning experience and actions.” Previous studies considered students’ online learning readiness from different perspectives. Warner, Christie, and Choy (1998) made a three-way definition of the concept of online learning readiness: (1) The mode of education that students prefer to the face to face education, (2) Efficacies of students to utilize Internet and computer-aided communications for learning, and (3) The skill to participate in independent learning. So, before students embark on online learning, there is the need for students to do self-assessments to determine whether they possess suitable characteristics for successful online learning.

- **E- Learning Readiness Assessment**

Several studies in the last decade have dealt with this issue of readiness. Some targeted teachers such as Soydal, Alır, and Ünal, (2011) , Hegarty, and Perman (2005) Bonanno (2011) Akaslan, D., Law (2010) Tezer, M., Bicen (2008), So (2005) and Kaur, K., Abas

(2004), while other studies have stressed the importance of understanding students' readiness for learning online like Soydal, and Ünal, (2014), Plata (2013), Akaslan and Law (2011), Tubaishat and Lansari (2011), Davis (2010), Hung, Chou, Chen and Own (2010), Shraim & Khlaif (2010), Park (2009) and Elliott, Hall, & Meng (2008). All these studies showed that results related to the different aspects of e-learning readiness can vary over time, among institutions or instruments that were used for the assessment.

To assess E-learning readiness, many models or surveys have been developed by different researchers. The most cited model of e-learning readiness is the one developed by Chapnick in 2010. It defined measuring e-learning readiness as a process for determining the gap between what students know and what they need to know. Chapnick listed 66 survey questions and grouped them into eight defining categories (i.e. psychological, sociological, environmental, human resource, financial, equipment, content and technical skill readiness).

McVay Lynch (2000, 2001a, 2003), on the other hand, developed a 13-item instrument for measuring readiness for online learning. His instrument identified two factors, students' behavior and attitudes, as the potential predictors to online learner readiness. Smith, Murphy, and Mahoney (2003), and Bernard, Brauer, Abrami, and Surkes (2004) advanced new surveys based on the McVay instrument. Later came Akaslan & Law (2011) and Dray et al. (2011) with similarly important surveys.

All these existing online student readiness instruments especially usually contain multidimensional measurement scales that mainly focus on the following variables: (a) students' general learner characteristics, such as perception of interpersonal communication skills, (b) basic technology skills, such as ability to use specific applications in specific ways, and (c) their self-management of learning, or self-directed learning.

● **SIGNIFICANCE OF THE STUDY**

Despite the existence of several research studies around the world and the resulting relevant information in the existing literature on students' e-learning readiness, there is no documentation of any such empirical study in Morocco. This research study is significant because it comes as a reaction to such research paucity. Moreover, if students are to benefit from the rapid ICT developments and their potentials for creating greater access to higher education in Morocco, and if e-learning would generate more opportunities in higher education through technology-mediated learning, there is a need to conduct more in-depth investigations into the e-learning readiness of students, their present level of technology usage and their perceptions and attitudes to web-based learning in Morocco during the actual pandemic context and afterwards.

● **RESEARCH METHODOLOGY**

This study aims to investigate the e-learning readiness of Moroccan university students in a way to expect the success or failure of the new distance learning measures prompted by the Covid 19 outbreak. It particularly looks into the students' perceptions about the main

components of e-learning, namely, availability of technology, use of technology, self-confidence, acceptance and training.

- **Research Questions**

This study aims to answer the following research questions:

- 1- Are Moroccan EFL university students ready for e-learning?
- 2- What are the students' perceptions about the main components (availability of technology, use of technology, self confidence, acceptance and training) of e-learning?

- **Subjects**

Subjects of this study are 200 students from different university levels: graduates and under graduates; all are university students studying English at faculties of letters and humanities in Morocco. Neither age nor gender was a criterion for subjects' selection.

- **Research Instrument**

Participants were asked to report their perceptions on readiness for e-learning through a questionnaire that had been initially developed and tested by Akaslan & Law (2011). This assessment model is based on a conceptual model of the readiness for e-learning which evaluates the perceived readiness in three phases namely, readiness, acceptance and training. The original questionnaire had 78 items some of which are measured with a binary choice or a five-point Likert scale, while others are open questions. However, the researcher made a selection of only 25 questions of the original assessment and added other questions to get more information from the participants in relation to other investigated variables. Therefore, in total, students reported their perceptions on 32 e-learning related items regarding the above

mentioned five main components of e-learning readiness with a three-point Likert scale.

The prepared questionnaire was converted into an online web-based format and was posted to students to fill in as it was impossible to have any personal contact with them in such a lockdown context. This is why only a limited number of students who have online access to ICTs could actually interact with the questionnaire. The web-based survey was launched on 6th April 2020 and closed on 12th April 2020.

● RESULTS AND DISCUSSION

This research is of an exploratory design. It is also quantitative since the questionnaire was analyzed and made to yield numerical data that were conducted to statistics.

Table 1 illustrates the distribution of the respondents for each group. There is a quite a similar proportion between females and males. The total number of females represent 51,2% of the responding students, while males represent 48,8%. Another variable is the respondents' grade level: 73.8 % are currently studying an undergraduate degree and the rest 26,1% are pursuing their postgraduate studies.

Table 1. The frequencies and percentage of research groups

Gender		N	%
Female		103	51,2
Male		97	48,8
Grade Level		N	%
Undergraduates	Semester 2	37	18,2
	Semester 4	36	17,7
	Semester 6	77	37,9
Postgraduates	Master	40	19,7

	Doctorate	10	6,4
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The e-learning readiness questionnaire has five main components that aim to reveal “availability of technology” facilities, “use of technology”, “self-confidence”, “acceptance” levels and “training” needs of the respondents. Each point- Likert option is given a score that goes from 3 (Agree) to 1 (Disagree). Findings of each category are presented as follows.

The subsequent table shows the students’ opinions for each item and the overall score for the students in terms of “Availability of Technology” as the first factor in e-learning readiness.

Table 2. Statistics for the items related to ‘availability of technology’ factor

	Items	\bar{X}	% of agreement
Availability of Technology	1. I am satisfied with the hardware facilities (computer/mobile phone,/tablet) I have. They are enough for me.	2,33	52
	2. I am satisfied with the software facilities (programs and applications) I have in my Pc or mobile. They are enough for me.	2,2	45,5
	3. The stability/ speed of the internet access I have is satisfactory.	1,8	32,5

	4. I have access to computer/ mobile whenever I need	2,5	65,6
	5. I can connect internet whenever I need.	1,9	46,4
Total Mean of items: $\bar{X} = 2,14$			

The respondents were asked about elements dealing with the availability of technological tools in their environment. 52% of them agree that they are satisfied with the computers or mobile devices they have, and 65,5% claim that they have free unlimited access to such devices, both with mean scores of 2,2 and 2,5 that are slightly above the average. As for the other three items, 45,5% of the participants maintain their dissatisfaction with the software programs they have with a total mean score of 2,2 or just the average when it comes to their expected readiness. On the other hand, the items on stability/speed of internet and that of free internet access received the lowest mean scores of 1,8 and 1,9 respectively, both of which are below average of expected students' readiness.

An overall count of means of the totality of items related to the 'availability of technology' displays that respondents perceive of themselves as ready for e-learning with a mean score of 2,14 in sum. This result can be interpreted that although students believe that they have adequate tools and programs to engage in e-learning, but neither their limited access to internet, nor the low quality of their internet connection can make it possible. This situation has to be thought of and improved before embarking on any e-learning experience. The high-stakers should understand that having hardware devices and

software programs is not enough to engage in any form of distance learning. Therefore, they should create proper strategies to ensure that there is a good accessible to all internet connection to ensure a fruitful engagement to e-learning,

Table 3. Statistics for the items related to 'use of technology' factor

	Items	\bar{X}	% of agreement
Use of Technology	6. I use internet as information source.	2,7	65
	7. I use office software (e.g. word/ excel/ power point....)	2,7	72,2
	8. I use social network sites (e.g. facebook, twitter, instagram...)	2,8	83,3
	9. I use specific software (e.g. SPSS, R...)	1,7	22,5
	10. I use emails and instant messaging.	2,7	74,2
	11. I use learning management systems (Moodle/ Google Classroom/ Schoox...)	2,5	62
Total Mean of items: $\bar{X} = 2,5$			

The respondents' experiences and self-belief in the usage of different technological commands and skills for their study were investigated to find out the extent to which they are ready for e-learning. All students asserted with a high percentage of agreement that they already use

internet to get information (65%), software (72,2%), social network sites (83,3), emails (74,2%) and learning management systems (74,2%). The only item that received the lowest degree of agreement was the use of specific software (22,5%), this can be related to the fact that the nature of study for the majority of participants does not require any specific knowledge of particular software. People who showed agreement on this item might be post graduate students who need such sophisticated programs in their research and specialized data management concerns.

As shown in Table 3, the mean scores of almost all the items related to the factor 'use of technology' are high. This implies that students have a prerequisite knowledge of the use of basic online skills needed for e-learning. As for the use of specific software, it is a matter of usefulness or need. When students think they need software, they will obviously learn how to use it. In conclusion, students show a high level of readiness to e-learning with a total mean of 2,5, based on their level of mastery of technology related skills.

Table 4. Statistics for the items related to 'self-confidence' factor

	Items	\bar{X}	% of agreement
Self-Confidence	12. I have enough information about what E-learning is.	2,4	48,1
	13. I have the skills to operate a computer, to use office and content delivery software (e.g. power point,	2,4	57,4

	word, excel...)		
	14. I am able to use web browsers (internet explorer, Google chrome, Firefox...) and search engines (Google).	2,8	86
	15. I can analyze, fix and solve most problems associated with casually using a computer.	2,2	45,5
	16. I can use digital file management tools (e.g. deleting a file, renaming a file, creating a file or folder on the computer)	2,7	76,4
	17. I can study and do my homework by using electronic technology facilities.	2,7	76,4
	18. I believe that E-learning is easy to use.	2,3	47,4
	19. I feel that I am ready for E-learning.	2,4	53
Total Mean of items: $\bar{X} = 2,48$			

Table 4 provides the mean scores and percentage of agreement of the respondents for each item related to the factor 'self-confidence. The respondents were asked how much they know about e-learning and to what extent they see themselves able to perform different tasks related to online learning. Results displayed show that it can be easily observed that the mean scores of all the items related to this factor

are higher than the average number which is 2. Students believe that they have the skills to operate a computer (57,4%), to use web browsers (86%), to use digital management tools (76,4%), and to use ICTs in studying (76,4%). Results showed a lower percentage of agreement on other elements such as having the knowledge to solve computer problem (45,5%), or having sufficient information about e-learning (48,1%) and its usability (47,4%), still, these numbers don't seem of any statistical significance because their mean scores are above average maintaining that all respondents perceive themselves as self-confident enough to start any e-learning experience with no problems. Results of item 19 clearly indicate that more than half of the respondents feel that they are ready for e-learning with a mean score of 2,4, which echoes the overall total mean of the entire factor of 'self-confidence'. This clearly indicates that integrating e-learning will not be a difficult task since the majority of students are convinced that they can handle it despite the insufficient knowledge they seem to have about the entire matter. A significant step to take would be to inform students about basic characteristics of e-learning. With a better understanding, their attitudes towards e-learning may improve.

Table 5. Statistics for the items related to 'acceptance' factor

	Items	\bar{X}	% of agreement
Acceptance	20. I am eager (very willing) to start E- learning.	2,5	57
	21. I believe that E- learning can	2,3	52,4

	enhance the quality of education.		
	22. I believe that using E-learning can increase my productivity.	2,4	57,7
	23. I believe that E- learning is more effective than the traditional classroom-based teaching/learning.	1,7	20,2
	24. I believe that E-learning enables learners and instructors to communicate and interact better with one another.	1,9	35,4
	25. I support the implementation of E- learning in my department even after the Coronavirus pandemic is over.	2,2	48,3
Total Mean of items: $\bar{X} = 2,16$			

In order to measure their acceptance for e-learning, the respondents were asked to speak out for 6 items. Table 5 shows the mean scores and percentages of agreement of all the items related to the factor 'Acceptance'. Results here are quite confusing because while students assert that they are eager to start e-learning (57%), that e-learning can enhance the quality of education (52,4%), and increase their productivity (57,7%), very few of them believe that e-learning is more effective than classroom-based teaching/learning (20,2%), or that e-learning enables a better interaction between students and professors (35,4%). Moreover, only 48,3% support the implementation of e-learning in their department after the pandemic is over. This can be

interpreted that although the respondents hold positive attitudes towards e-learning, they are reluctant to have a full change from their traditional way of studying to a new one. This might come from the conventional fear of the unknown and panic of newness. Students would feel comfortable with something they have been exposed to for a long time, no matter how effective, easy and appealing is the other thing. The total means of acceptability items is therefore, just on average with a score of 2,16. It is evident, then that students should be introduced gradually to e-learning in a way to familiarize them with its usability and merits before asking them to engage fully in it.

Table 6. Statistics for the items related to 'training' factor

	Items	\bar{X}	% of agreement
Need for Training	26. I need training on E- learning.	2,5	64,4
	27. My teachers need training on E- learning.	2,04	45,4
	28. My classmates need training on E- learning.	2,6	66,1
Total Mean of items: $\bar{X} = 2,38$			

The respondents were asked to answer five questions to find out whether they think there is a need of training for e-learning before it is implemented. Table 6 indicates that the respondents believe that they, along with their peers need training for e-learning with percentages of 64,4% and 66,1% respectively, and with high mean

scores. However, there is a lower percentage of students who think that their teachers also need training in e-learning (45,4%). Still, the mean score for this item suggests that there is a common consensus that teachers should benefit from such training as well, an opinion that might be based on some previous experiences or remarks. Generally, results yielded suggest that students express a readiness for e-learning training with a total mean score of 2,38. Therefore, high education institutions should provide facilities to ensure a clear understanding of e-learning and how to engage in it for both students and professors. This should include understanding the potential benefits of e-learning and how it can enhance students to learn more effectively and efficiently.

Table 7. Statistics for readiness level to all the factors

Factor	Readiness Level Total Mean Score \bar{X}
Availability of Technology	2,14
Use of Technology	2,5
Self-confidence	2,48
Acceptance	2,16
Training	2,38
Sum of Factors	2,33

As shown in table 7, and counting the mean score of students' readiness to e-learning regarding the sum of the five previously mentioned factors, results show an overall mean of 2,33. This indicates that Moroccan EFL university students are ready for e-learning, though not with a striking high level.

● CONCLUSION

E-learning is a topic that has received a great deal of attention and investigation, especially during the actual lockdown circumstances. All pedagogical institutions from all levels are now offering e-learning courses with no priori plans. Even at the university level, it was always displayed in academic agendas that e-learning should be employed as a backup or a follow up to the conventional classroom activities. Now that such an implementation is being imposed with a little or no grounding, it is necessary to check on the soundness of such a decision by testing the students' readiness to embark in such an online journey. The obtained results would help construct an overall expectation of the success or failure of such an abrupt decision.

In summary, Moroccan university students seem to be ready for e-learning, but there are some factors that need to be reconsidered to ensure a better achievement. First, there is some work to be done in terms of the availability and the use of technology. More precisely, Moroccan youth should be given more facilities to afford hardware tools and software. Universities should provide them with grants or low profit loans to purchase such technological needed devices. A good speedy and constant internet connection is also of a crucial need to make students make the most of e-learning. Second, there is a need to develop training programs for students so as to help them understand e-learning better, and, hence, make more benefits out of it. Without this training, there is a high risk to end up with failure. Third, according to students' responses, a great number of them do not seem to believe in e-learning as a way to replace the conventional classroom learning. They appreciate e-learning, but see it just a tire

for emergencies that should not be used after the pandemic time. This calls for a reconsideration of the position given to e-learning inside the university. Administrators and professors alike should help raise the students' awareness about the merits of e-learning, and this latter should find its place within the educational system, not as a support, but as an independent educational form. Until this becomes real in Moroccan universities, one should still be optimistic about the outcome of this e-learning experience in such a context.

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