

Student's Perception of e-Learning and Assessment Environment used by USMS University in Health Crisis Situations

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Abstract— This study serves to better understand students' perceptions of the learning platforms used in e-learning during and after covid-19 confinement. Distance learning has helped Moroccan universities to ensure pedagogical continuity in general and especially in the Sultan Moulay Slimane University (USMS). This survey aimed to investigate three factors: (1) Students' perceptions of the e-learning using platforms (2) Richness of online content and its relevance and how the students contribute to use these contents (3) Preference of type education.

A total of 293 students completed a closed-ended questionnaire following the survey method which was distributed online using the Google forms. The responses were evaluated and analyzed by SPSS software.

The results of the descriptive statistics of this study show that the e-learning program of the USMS, using online platforms was more important. They highlight the need to focus on the development of distance learning to improve its effectiveness, especially in health crises such as covid19.

Index Terms—platforms, E-learning, online learning Assessment, Blended Learning, Perception.

I. INTRODUCTION

Today, the main focus of education during the COVID-19 pandemic is to teach students using online learning platforms such as Moodle, Microsoft teams and zoom, which are primarily aimed at which are primarily aimed at reaching and teaching students in their homes during the quarantine and giving them easy access to educational materials 24 hours a day. This article examines students' perceptions of online learning using Moodle, Microsoft teams and Zoom in the University of Faculty Sultan Moulay Sliman in Morocco, it also examines Students' knowledge of the Moodle, Microsoft teams and Zoom platforms and how they contribute to self-learning and academic success.

Technology breakthroughs have made distance learning more common in universities, and the use of ICT (information and communication technologies) in education has raised the demand for innovative evaluation techniques that go beyond conventional methods[1]. In Morocco, like in other nations, the concept of distant education is not new. Creating suitable assessment techniques that promote students' development and align with learning goals is a problem. Evaluations affect how much students are valued; they also affect how well students comprehend and engage in learning activities; and lastly, they

affect how well these abilities are applied to future learning[2].

According to Almarabeth, behavioral factors such as the viewpoint of the learner are crucial to the learning process in order to achieve study objectives[3]. Thus, "How students' perception of online learning using Microsoft Teams application?" was the study question.

The responses were evaluated in a multiple regression model that focuses on students' expectations of gender, age, prior computer knowledge, attitudes towards emerging technologies, learning styles and how e-learning is applied at the USMS university in Beni Mellal. The advantages and disadvantages of e-learning in quality content analysis were listed. Based on the issues listed below, our research aims to examine students' expectations of distance education.

The survey was carried out during the covid and post-covid period for and was based on several criteria namely some preferences of the students in Sultan Moulay Slimane University:

Q1-What is the preferred platform?

Q2-What type of teaching is preferred?

Q3-The richness of online content and its relevance?

To better understand students' experience of distance learning, the following important objectives can serve as a helix for this study:

1) To uncover the challenges faced when studying online during the covid19 pandemic.

2) To provide practical implications on how to make distance learning effective

3) Discuss the main advantages and disadvantages of online learning during a COVID-19 pandemic and its relationship to self-learning and academic achievement.

This research analyses the degree of use of online platforms most used and its relationship with self-study, academic achievement, self-learning, and academic success among students. An initial sample of 293 students using methodological methods. The key elements of the approach covered in this report. Data collection and response rate, population and sample analysis, production of questionnaires and statistical techniques are discussed below.

The structure of this article will be as follows: In the first section, we will provide a summary of the literature on distance teaching and assessment techniques. We will describe the

research methodology in the second section, as well as an overview of current assessment approaches in distance learning. The results and discussion of the study will be presented in the third section. and finally, we will give a conclusion.

II. LITERATURE REVIEW

Distance education is more of a philosophical approach to education than a method as it allows students to learn from home or at a location of their choice without needing to interact with teachers one-on-one. Thus, technology plays a vital role in distant education. As a result, distance learning is a type of educational system in which teachers and students communicate through various media to exchange knowledge, including publications and educational media, while utilizing modern audiovisual technology[4]. Asynchronous and synchronous remote learning are the two types available. Direct communication between students and teachers is made possible by the asynchronous video conference delivery of the courses in real time. Instruction is based on the teacher's materials, and students use email, discussion boards, forums, and salons de discussion to participate in synchronous or asynchronous learning. Other studies have also revealed that most students favored asynchronous learning over synchronous learning, with the remaining students either strongly disagreeing, agreeing, or not caring about the matter[5]. Furthermore, systematic blending of online and in-person learning results in mixed learning[6]. A questionnaire and pertinent statistical methods were employed in the study to gather student opinions on the remote learning process.

Owing to the growing popularity of online learning environments, such as Massive Open Online Courses (MOOCs) [7]and remote learning programs[8], empirical studies are focused on various online evaluation implementations, such as online formative assessments [9], digital assessments based on games[10], online binary assessments[11], and online auto-evaluations[12]. Exemplary best practices for incorporating evaluations into online learning settings have also received particular attention[12]. In addition, developments in data analysis have raised awareness of automatic learning and associated algorithms for methods to semi-automated assessment [13] or online evaluation improved by analysis [14]et al. One area of study that shows promise is the ability to offer instructors and learners with meaningful feedback almost instantly through online assessments and learning analysis [14][15]et al.

A. Moodle, Microsoft teams and Zoom platforms priorities, targets, and content–analysis on the basis of digital and interaction technologies developed-scenarios.

The purpose of the Moodle, Microsoft Teams, and Zoom platforms is to increase the efficiency, expertise, and performance of training for faculty members and students in specialized technical and humanitarian fields using cutting-edge technology. The development of theoretical foundations and practical abilities in the field of innovations in education, as well as the creation and application of new technologies in education,

are the goals of the Moodle, Microsoft Teams, and Zoom platforms[16].

III. METHODOLOGIES

The method adopted in this paper is to conduct a statistical survey of students. The survey was conducted online with a sample of the target audience. Pre-survey emails, invitations and survey confirmations were sent to USMS graduate and undergraduate students. The survey was made available on the Internet and on all student communication platforms.

As a result, 293 surveys were completed, with a sufficient response rate to properly analyse the results of this research.

A summary of the participants in this study is shown in Table1.

The sample was relatively evenly distributed by gender (58.4% male students and 41.6% female students).

The samples of students are randomly selected and belong to the different institutions of Sultan Moulay Slimane University of all cycles and graduates of various schools using an online questioning form.

The quota was determined using a representative sample of 293 students.

TABLE I
Participant Characteristics.

Gender	Male	58,4 %
	Female	41,6 %
level of study	Bac+1	15
	Deug	2
	Licence	137
	Master	94
	Phd	45
Major	student	
	Humanities	16%
Prior experience completing an Elearning course	Scientific	84%
	Yes	53,9%
Prior awareness of e-learning platforms (Moodle, Microsoft teams and zoom)	No	46,1%
	Yes	33,8%
	No	36,2%

This questionnaire is used to obtain demographic data and prepare students to assess their knowledge of online learning using the Moodle, Microsoft teams and Zoom platforms. while other questions measure :

-factors influencing students' understanding of the use of these platforms in online education. Respondents' assessment of the effectiveness of Moodle, Microsoft teams and Zoom platforms in the educational process.

- Problems in the use of e-learning by students.
- The number of disciplines covered by e-learning.
- The amount of time students spent on e-learning.

- The activities/tasks that participants perform directly in the e-learning environment.

Students' opinions on the use of e-learning in the learning process. And evaluation of the impact of e-learning on self-learning and motivation by the respondents.

A. Data collection

In this research the data is collected through the Google forum questionnaire and a questionnaire guide was given to the students.

293 questionnaires were provided by a random sample of USMS students.

The questionnaires were completed and evaluated using SPSS analysis software for static reasons, consistency analysis and regression analysis were used.

Several observations were used to explain the descriptive statistics, to give an idea of the basic characteristics of the data. characteristics of the data. Frequency, mean, standard deviation and the simple linear regression test are the statistics used to explain the data.

The frequency, mean, standard deviation and simple linear regression test are the most used descriptive statistics for data analysis for model development.

B. Quantitative survey method

The statistical survey makes it possible to collect data which will be processed and analyzed with a view to assessing the different modes of evaluation applied in higher education institutions.

The quantitative approach is based on several modes of primary data collection, including the questionnaire. According to the questionnaire is the most suitable primary data collection tool for conducting surveys and polls based on quantitative and/or qualitative information. It allows the collection of a very large amount of information from large samples of respondents[17].

Data collection is a necessary and fundamental step for the success of any empirical study. It is carried out using several methods. To achieve our objectives, we chose the quantitative approach. To answer our question, we conducted an online survey with a sample of 293 students from the Sultan Moulay Slimane University.

After sharing the online questionnaires with the GOOGLE FORMS [18]tool which is a cloud-based data management tool used to design and develop online questionnaires.

After collecting the data needed for our study, we established a complete database that we integrated on a data processing and analysis software allowing to develop several types of univariates, bi-variate, and other statistical analyses.

IV. RESULTS

The results of this study generally show that respondents are very aware of the important use of Moodle, Microsoft teams and zoom. In the teaching process of the USMS university, the vast majority of students have this means that e-learning is a necessity now and, in the future, to ensure educational

continuity.

The results mentioned in the table 2 show that the majority of those who participated in the study, through online courses (64.5%), are willing to learn.

TABLE II
Students' awareness of the use of Moodle, Microsoft teams and Zoom platforms in the teaching process.

Statement	Yes	No
Increases motivation to study.	51,19%	48,81%
Promotes self-learning and enables progress to be made according to ability.	73,72%	26,27%
Helps to make learning enjoyable.	56,65%	43,35%
Helps to make learning faster.	63,13%	36,87%
Develops the ability to question oneself.	60,75%	39,25%
Is your institution's e-Learning platform convenient to use	55,60%	44,40%
e-learning in the university Is used in all subjects.	45,39%	54,61%
e-learning in the university is needed now and in the future, and it will be an integral part of the educational process.	88,88%	19,12%
e-learning in the university Enables the learning process to be organised more effectively and modern teaching resources to be used.	77,47%	22,53%
e-learning in the university Develops ICT skills (Information and Communication Technologies)	79,52%	20,48%
In Moodle, Microsoft teams and Zoom platforms, do you have the possibility to complete assignments using online resources without the need for someone else's help	59,70%	40,30%

The results of Table 3 show that Microsoft Teams is the most popular remote evaluation platform used by University Sultan Moulay Slimane students. This is likely because the university has adopted this platform as its primary online communication and learning tool. Although to a lesser extent, a significant number of students also use Moodle and Zoom. It's also important to note that just a small percentage of students (49) reported using other platforms, suggesting that students use a variety of platforms.

TABLE III
Online learning platforms used by students.

Platforms	Microsoft Teams	Zoom	Moodle	others
	165	112	31	49

A. Presentation of the results of the statistical survey

The first results of the survey show a shift from face-to-face to distance learning. As shown in the graph below, over 75,4% of respondents consider distance learning to be a good solution to adopt during and after the containment period caused by the Covid pandemic19.

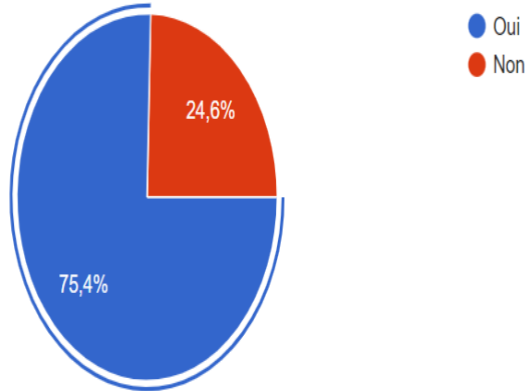


Fig.1: Students' perception of distance learning as a solution in times of crisis

Similarly, the graph below shows that despite students' attachment to traditional education, there is a trend towards distance learning, as more than 50% of respondents opt for hybrid education.

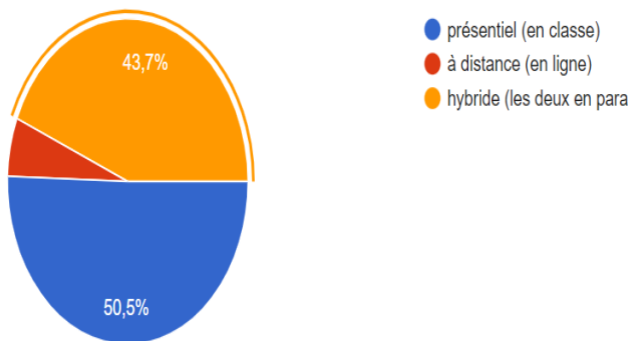


Fig.2 : Students' preferences for face-to-face, distance and blended learning

In relation to the difficulties encountered by students when using distance learning platforms, we observe that 59.1% of the respondents had difficulty in using these platforms. Furthermore, for 40.9% of the students interviewed, the platforms do not necessarily present difficulties in use.

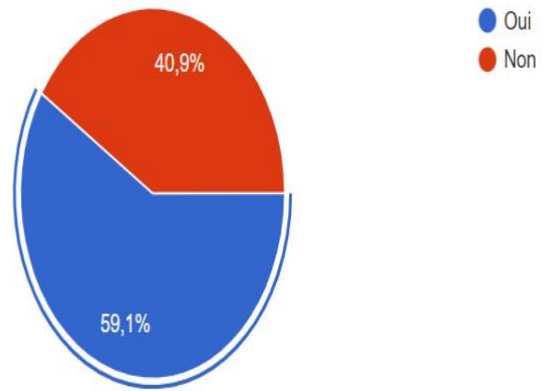


Fig.3: Difficulties encountered by students in online examinations

Similarly, 62.2% of the students surveyed confirmed that they had used the Moodle, Microsoft teams and Zoom platforms to complete assignments using online resources without needing help from anyone else.

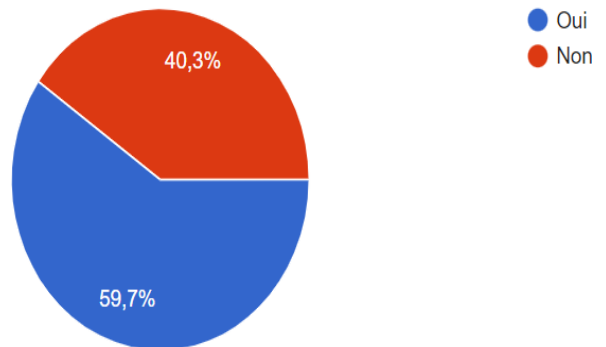


Fig.4: Proportion of students who used platforms for online assessment without needing help

B. Online learning platform used by students

According to Table 4 findings, the majority of students (142 out of 239) who responded to the poll said they would like to utilize Microsoft Teams as their main online learning platform. With 81 students indicating a preference for it, Zoom was the second most popular platform. Of the students who responded to the poll, just 16 said they favored Moodle above other platforms. This may be as a result of the institution using Microsoft Teams as its main remote learning tool, which makes it more recognizable and user-friendly for students.

TABLE IV
 Students' preferences for online learning platforms.

Favorite platform	Microsoft Teams	Zoom	Moodle
	142	81	16

V. DISCUSSION

In e-learning, open-ended questions can provide more useful information, but unfortunately, they are more difficult to assess [19]. However, automated short answer scoring is more difficult to create than Automated Essay Learning (AEL) as the learner tends to focus on grammar and learning technique, whereas automated answer scoring tends to focus on content. However, our approach does not need to predefine a sequence of situations. They are defined dynamically according to the level of the learner and his/her knowledge acquisition. This study highlights the critical need for high-quality learning and assessments in distance education. It was based on data collected from an online survey administered to USMS participants. According to the study results, the majority of participants in this study reported that they needed additional training on different online learning platforms. on the various online distance learning platforms, considered an important instrument for maintaining educational continuity.

The primary obstacle to online learning, according to this study and previous studies, is a lack of infrastructure, technology, Internet access, and high-quality Internet service in rural areas[20]. The primary obstacles to the creation and execution of virtual education encompass temporal limitations, insufficient technological know-how, deficient infrastructure, and a deficiency of institutional tactics[21] . Still, our method does not need predefining a series of scenarios. They are dynamically defined based on the degree and type of knowledge acquired by the learner.

Depending on the environment and resources available, the platforms and methodologies utilized for remote learning and evaluation may differ from other research carried out at universities in other nations. Certain universities could possess access to more sophisticated technology and resources, whilst others might only have restricted access. Furthermore, sociological, and cultural variables could have an impact on how distant learning and evaluation techniques are adopted and used. Therefore, in order to guarantee the greatest results for their students, institutions must consider their particular context and available resources while implementing remote learning and evaluation methodologies.

The study investigated students' perceptions of the online learning and assessment environment and found that most students had positive opinions of the environment in terms of performance evaluation, learning and performance processes, and overall assessment system.

The highest feedback is received when students first start

their academic careers. This is followed by a marked decline in satisfaction during the third year, while satisfaction with feedback related to instruction and evaluation improves during the ensuing years but stabilizes below the level attained during the first year of a career in higher education. A study found that students' perceptions of comments related to instruction and evaluation deteriorated as study years went on, which is consistent with our findings. However, our results also showed that these perceptions improved after the initial decline as students advanced through each year, even though this never reached its peak. The level at which it was at the start of academic life.

VI. CONCLUSION

Our study on students' perception of online learning in the era of and after containment, showed the effectiveness and relevance of this mode of teaching in the pursuit of studies and the continuity of different pedagogical and didactic tasks.

That said, distance learning of various kinds at home is a good alternative for both teachers and learners. In other words, e-learning is becoming an area of application that allows access to content and promotes rapid learning.

Researchers in Morocco are called upon to conduct more academic studies not only to deal with the current situation of Covid-19 but also to establish unified principles for e-learning as a new pedagogy and a user-friendly way to democratise education.

In sum, we consider that the global Covid-19 pandemic has served as a lesson to the entire academic and educational community worldwide, insofar as distance learning is becoming the first alternative and the preferred choice for any teaching/learning situation.

Finally, we assert that it is a mode that offers learners flexibility in learning and facilitates their access to different materials through digital platforms and university sites from their homes. It is a new pedagogy that serves as a means of promoting autonomy in the acquisition of different knowledge for learners but also an excellent modality for teachers who could ensure both the continuity of their teaching practices and easily assess their learners online. It is imperative that academic institutions and educators continue to investigate and develop appropriate assessment methods that support students' progress in a remote learning environment and are in line with learning objectives. The development and implementation of methods utilizing artificial intelligence (AI) algorithms could be a promising avenue for future research in the field of distance learning evaluation, as it could lead to increased process efficiency and precision.

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