

Barriers to university learning on Moodle platform during corona pandemic A field study on the professors of physical education and sports institute

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Abstract:

The study aimed to find out the obstacles to distance university education for teachers of physical and sports education at the University of Chlef during the Corona pandemic, where the research sample amounted to (70) professors and the questionnaire was used, and we found that distance education has obstacles to a medium degree for teachers.

KEY WORDS : the barriers ; online learning ; professors ; the corona virus .

المخلص: تهدفت الدراسة الى معرفة مستوى معيقات التعليم الجامعي عن بعد للأساتذة التربية البدنية والرياضية بجامعة الشلف خلال جائحة كورونا، حيث بلغت عينة البحث (70) أستاذ وتم الاستعانة بالاستبيان ، وقد توصلنا أن للتعليم عن بعد له معيقات بدرجة متوسطة للأساتذة .
الكلمات المفتاحية: معيقات ؛ التعليم عن بعد؛ الأساتذة ؛ جائحة كورونا.

1-Introduction:

After the propagation of corona virus around the world most countries sounded the alarm and were obliged to close universities and schools to avoid infection and to try to contain the disease and prevent it from spreading more, which may lead to awful consequences on any state. This led the Algerian ministry of health to adopt a series of procedures, which fall within implementing quarantine. Indeed, Algeria is one of the first countries that closed schools and universities and moved toward online education, same as some big countries in the world. As it implemented ministerial instruction number 634 dated on May 14th 2020, concerning the continuation of teaching online in light of the repercussions of the pandemic (<https://www.universitedz.com> ,2020), which could be a good opportunity for the Algerian universities to change their methods and integrate electronic tools as part of teaching methods and move away from traditional ones. So, all universities were obliged to shift from classroom learning which permit physical closeness that may lead to the spread of infection, to electronic learning or distance education, as 1.5 million pupil or student in(188) country had to stay home after closing schools and universities (**Affounch S, 2020, p. 2**).

Open distance learning (ODL)or Electronic learning (EL) is a type of learning that was very important to integrate in the learning process before the corona pandemic, but it became an alternative and an urgent need in order to continue learning in circumstances which impose physical distancing, (**Komi, 2006**) considers that electronic learning came as a result of technological development, especially since the learning process has been influenced directly by the technology of artificial intelligence.

Moreover the study of(**Selma Kaunda 2018**)pointed out that the use of information and communications technology contributes broadly and effectively in the development of sports, through the use of modern technological means in learning methods. Furthermore, the study of (**Rabeh Bouriah 2018**) emphasises that the use of information technology plays a big role in the execution of working procedures by the professors of physical education and sports.

The University of Chlef relied on compelling teachers to start scaffolding lessons and practical activities on the university platform,

providing them with a video that explains, for both teachers and students of physical education institute, how to scaffold, and how to access the platform. And this because the sanitary situation has imposed a non-interactive method of learning on universities, but still this electronic learning plays an important and essential role in making the learning process successful in light of today big technological development and wide-ranging modern means of communications from computers to the internet and multiple mediums like : audio, image and video which allowed a big number of people to receive instruction easily with minimum time and effort (Daadoud,2016).

In a study by (kasir abderazzak 2019) he concluded that the technology of education increases academic achievement motivation, and that supports the learning journey if we provide the right means.

However , some problems surfaced during the application of electronic learning like the poor use of certain e- learning software because the university of Chlef has never used electronic instruction or distance learning before. In addition to the weak infrastructure which requires the adoption of particular software and providing each student with internet, a smart phone and a computer. For this reason, it became imperative to know and evaluate E- learning and find out how successful it was in achieving its objectives, and how capable it was in responding to students needs and finding an interactive environment, which would obviate the need for classroom learning.

This study aims to answer the following question:

What are the barriers facing distance learning, in light of Corona virus propagation, from the point of view of physical education and sports professors at the university of Hassiba Benbouali in Chlef ?

Stemming from this question the following sub-questions:

- What are the dimensions of barriers to distance learning use for the professors of physical education and sports?
- What is the level of interaction between teachers and students in distance learning at the university of Chlef ?

2- General objective of the study: The level of barriers to distance education in light of the spread of the Corona virus through professors of physical education and sports at Hassiba Bin Bouali University in Chlef is medium.

Partial hypotheses:

The level of obstacles to the use of distance education for teachers of physical education and sports is medium .The level of interaction of professors and students with distance education at Chlef University is medium.

3- Procedural definition of the concepts :

- **The platform MOODLE:** the university of Hassiba Benbouali set up a platform where to scaffold lessons, practical activities and directed activities, and the student can access it to download the scaffolding and keep in touch with the teacher via.

- **Coronavirus (Covid 19) :** a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) (World Health Organization, 2019).

the teacher of Physical Education and Sports: The procedural concept of professor of physical education and sports: he is the person who teaches physical education and sports programs at the Institute of Physical Education and Sports in Chlef, at all levels, for the season (2020-2021).

4- The methodological procedures used in the study:

Method and tools: The director of the Institute of Physical Education and Sports at the University of Chlef was contacted in order to obtain information on the number of supervising professors. Then, the person in charge of the software at the Institute of Physical Education and Sports was contacted. After designing the research questionnaire in its initial form in three areas, we tested it in the field through the exploratory study conducted on 12 professors in order to identify the suitability of the tool and its suitability to measure what was put for it as well as their suitability for the characteristics of the research

sample. The selection of the pilot sample was also taken into account. Representative of the indigenous community.

Approach used: We have relied in our study on the descriptive approach to conduct this field research, considering that it is the appropriate approach to study human phenomena, which is consistent with such research.

Research community: Professors of Physical Education and Sports from Hassiba Bin Bouali University for the season (2020-2021).

Conditions for choosing a study sample: This study relied on descriptive, analytical methodology which is based on collecting data from a sample of professors using a questionnaire proper to meet the requirements of the study, and studying and

Table 1 : description of study sample

Variables		Répétition	Pourcentag
Gander	Male	65	87.5%
	Female	05	87.5%
Académie Rank	Professor of higher education	06	15%
	Senior lecture	58	70%
	Assistant professor	06	15%
Years of experience	Less than 5 years	06	15%

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	5 to 10 years	50	50%
	More than 10 years	14	35%
Training on using the platform	Yes	10	25%
	No	60	75%

- **The scientific foundations of the tool:** We notice from the table above that most members of the sample are males (87.5%) compared to (12.5%) females. It is also clear that most professors are senior lecturers (70%), and the rest of the sample is divided between professors of higher education and assistant professors. We also notice that the percentage of professors whose years of experience are between (5 and 10 years) is 50%. We notice as well that the percentage of professors who had training on using the platform is (25%) compared to (75%) who didn't.

Study tools: The research tool is the means by which the researcher can solve the problem. We have used in this study: the questionnaire.

Study tool: To achieve the objectives of this study the researcher created a questionnaire that consists of 26 items, which were sent to the professors of Hassiba Ben bouali who performed electronic teaching during the propagation of Corona pandemic. This questionnaire was developed based on the studies which dealt with E- learning like the study of (Aljaser,2019) and the study of (Basilaia, Kvavadze, 2020). The researcher also benefited from the metrics used in the previous studies. He reformulated some items, and formulated other items in relation to the theoretical aspect he has built around distance learning.

The questionnaire final form consisted of (26) items corresponding to five-point scale: (Strongly agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly disagree = 1). The items of the questionnaire were divided on 3 categories:

- The barriers to E-learning : (10 items)
- Interaction of professors with students (10 items)
- Interaction of students with professors (6 items)

Variables Identification: Independent variable: to learning on MOODLE platform during Corona pandemic ,

Dependent variable: Barriers.

Validate the study tool: We presented the questionnaire to (09) experienced and competent experts in the field of scientific research and teaching from the universities of Algiers and Chlef in order to evaluate the items of the questionnaire and verify their clarity and inclusion of all E-learning aspects in light of the propagation of Corona pandemic, as well as to check the appropriateness of the formulated paragraphs, and to give their opinion on the method of correcting the questionnaire. The opinions of these experts were focused on reformulating the language of some paragraphs, and the researcher modified the questionnaire according to their opinions.

Stability of the study tool: The questionnaire was sent electronically to a survey sample, aside from the study sample, which consisted of (12) professors from the University of Chlef, and the Cornbrash's Alpha Test was used to test the consistency of the questionnaire The coefficient was (0.805), the values of stability coefficients were between (0.890) and (0.736).

Statistical analysis: We Collected data using the survey instrument, which is the questionnaire, then imported it into an Excel file, organized it and stored it in the statistical program (SPSS) to analyse the study data after coding the answers. Descriptive statistics was used to calculate the mean and the standard deviations.

And the following value was used:

- 1 -2.36 low
- 2 2.37-3.69 medium
- 3 3.70- 5.00 high.

4-2 Presentation and Analysis of Results: The results of the general hypothesis: The level of barriers to distance education in light of the spread of the Corona virus from the viewpoint of the professors of physical education and sports at Hassiba Bin Bouali University in Chlef is medium.

Table (02): The Mean and standard deviations for the three categories of E-learning questionnaire

Rank	Categories	Number	Mean	Standard deviation
1	Interaction of students with e-learning	40	2.45	0.81
02	Interaction of	40	2.42	0.62

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	professors with e-learning in light of corona pandemic			
03	Barriers to e-learning	q40	2.31	0.33

Source: hamel bouhaik

As indicated in table (02) the arithmetic average for the Interaction of students with E-learning during Corona pandemic propagation is (2.45), the standard deviation is (0.81), and the level is medium. The arithmetic average for the interaction of professors with e-learning during corona pandemic is (2.42) and the standard deviation is(0.62), and the level here is medium as well .At last , the arithmetic average for barriers to E-learning is (2.31) , and the standard deviation is(0.33).

The results of the first hypothesis: The level of obstacles to using e-learning at Chlef University from the professors 'point of view is medium.

Table (03): Arithmetic averages and standard deviations for the third field paragraphs, constraints to e-learning.

Level	Field	Number	Arithmetic mean	Standard deviation	Score
1	The e-learning process corresponds with to the type of specialization	70	4.1	0.97	High
2	All professors have sufficient experience	70	3.31	1.07	Medium

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	and skills suitable for the use of computers and the Internet				
3	The flow and speed of the internet is adequate and I can give any lecture without any interruption	70	3.27	1.42	Medium
4	Training sessions on how to use e-learning were held	70	2.65	1.41	Medium
5	There is a blackout while you are doing the educational process	70	2.47	1.31	Medium
6	There is difficulty in direct communication between teachers and students	70	1.73	1.05	Low
7	Professors face problems preparing video lectures	70	1.81	0.94	Low
8	There is a difficulty for teachers in following up students through the available e-learning tools	70	1.71	0.98	Low
9	The student faces problems and obstacles when studying the	70	1.53	0.83	Low

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	subject electronically				
10	Students' interaction with e-learning and lectures was affected by difficult or special living conditions	70	1.58	0.78	Low

Source: hamel bouhaik

The paragraphs of the field “E-learning constraints” represented in **Table (03)** ranged from low to high degree. The paragraph “The e-learning process corresponds with to the type of specialization” occupies the first place with an arithmetic mean of (4.1) and a standard deviation of a high degree (0.97). The paragraph “Student interaction with e-learning and lectures was affected by their living conditions” came last, with an arithmetic mean of (1.58) and a standard deviation of a moderate degree (0.78).

The researcher calculated the arithmetic average and standard deviation for the category “interaction of students with E-learning from the point of view of physical education and sports professors”, and they are as follows:

the results of the second hypothesis: the level of students 'interaction with e-learning at the university from the professors' point of view is average.

Table(04): Arithmetic average (Mean) and standard deviation for the first category interaction of professors with E-learning during corona pandemic

Ra nk	Category	number	Mean	Standar d deviation	Leve l

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1	I think that distance exams are an appropriate method to asses students achievement	70	3.07	1.13	High
2	e-learning is more effective than traditional learning	70	3.41	1.34	Medium
3	There is a high credibility of students assessment in e-learning system	70	3.20	1.43	Medium
4	The professor at university of Chlef feels satisfied with distance learning	70	2.94	1.46	Medium
5	The used methods of assessment are appropriate and conducted in different ways	70	2.61	1.46	Medium
6	The student is continuously assessed in distance learning	70	1.91	1.27	Low
7	Inserting study materiel is easy	70	1.76	1.23	Low
8	The professor easily answers questions about study materiel via	70	1.75	1.13	Low

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	email.				
9	Commitment of professor to e-learning system according to university plan	70	1.47	0.62	Low
10	The learning content includes lessons and researches that contribute to learning.	70	1.47	0.92	Low

Source: hamel bouhaik

As shown in **table (04)** the items of the category “interaction of professors with e-learning during corona pandemic” ranged between high and low level, as the item “I think that distance exams are an appropriate method to assess students achievement” came in the first place, the mean is (3.7) and the standard deviation (1.13), and the level is high. the item “The learning content includes lessons and researches that contribute to learning came in the last place, its mean is (1.47) and the standard deviation (0.92), and the level is low.

4-3 Discussion and interpretation of the results: The results were discussed in light of

the results of the general hypothesis: The level of barriers to distance education in light of the spread of the Corona virus from the viewpoint of the professors of physical education and sports at Hassiba Bin Bouali University in Chlef is medium.

from the teachers' point of view, the results showed that the arithmetic average related to the obstacles to e-learning in light of the spread of the Corona virus reached (2.45) with a standard deviation of a medium degree (0.57), and that all other fields reached a medium degree.

These results are attributed to the fact that Chlef University of is one of the Algerian universities that have been adopting the method of mandatory attendance instead of e-learning for a long time. However, the university has suddenly switched to e-learning due to the global crisis of Covid-19, without giving neither teachers nor students sufficient training session to improve their usage of e-learning techniques.

This result is also attributed to the fact that e-learning requires the use of hardware, including computers, phones and guaranteed soft wares, and the purchase of special university softwares to ensure the participation of the largest number of students in the process of e-learning. However, and because e-learning was imposed on the Algerian university policy suddenly due to the pandemic outbreak, professors were obliged to communicate with their students using limited technological means available in their workstation , Besides, e learning requires concerted efforts of the Ministry of Higher Education. In addition to that, Hassiba Benbouali University (Chlef) teachers have not been trained on using e-learning method in the times of health crises.

The results of this question are similar to the results of the study of (**Drais si, Yong, 2020**), which revealed that the response to the outbreak of the disease (COVID-19) and the implementation of remote education in Moroccan universities was challenging for both teachers and students. The study of (**Yulia, 2020**) also revealed that the pandemic has reshaped the nature of formal education in Indonesia, as the traditional method of education has been replaced by e- learning from home in order to minimize social interaction and eventually, reduces the spread of the virus. Yet, the study (**Basilaia, Kvavadze, 2020**) revealed that the shift from traditional education to online learning during the pandemic outbreak was successful in Georgia. While the study of(**Suhaim Salem 2020**) suggests combining between attendance and e-learning methods in universities, the study of (**Kassir Abdul Razzaq 2019**) confirms that the use of

modern technological means increases students' motivation to study and obtain better academic grades. Finally, the skills acquired by university teachers can be used in multiple ways in the post-pandemic period, such as teaching students with special needs for extra hours, increasing the effectiveness of group teaching, improving students' independence to help them to obtain new skills, and enabling Algerian universities employees applying for Master's degree.

Conclusion:The results of the first hypothesis: The level of obstacles to using e-learning at Chlef University from the professors' point of view is medium.

The results of this question showed that the level of teachers' interaction with e-learning policy in light of the spread of Corona virus is of a medium degree, and that the interaction of Chlef University teachers with e-learning was medium to low in many activities. Teachers' interaction is linked to the continuous availability of Internet. However, teachers are obliged to stop interacting with students when the network is interrupted, which prevents them from responding to their students' inquiries about the educational material in an effective way. Besides, Chlef University teachers often fail in attaching voluminous educational materials for their students because the low Internet flow.

This result is also attributed to the fact that Chlef University teachers were not prepared to start implementing the method of e-learning. Thus, they focus on giving complicated and theoretical information instead of practical exercises and projects, which created a boring and negative educational atmosphere.

These study results correspond with results of the study of (**Sahar Salem abu Shokeedem 2020**), which concluded that the teachers did not receive a comprehensive e-learning training in Palestine, as well as the study of (**Rabeh Briah 2018**) and (**Qasir Abdul Razzaq 2019**) that confirmed that educational technology helps students achieve better academic grades.

The results of the second hypothesis: the level of students' interaction with e-learning at the university from the professors' point of view is mudum.

The results of this question indicated that there is a high, medium and low level of constraints hindering the use of e-learning at Chlef University.

This result is attributed to the absence of a university pre-approved educational software, which helped students' progress in theoretical aspects of the lesson, at the expense of the practical side of it.

This result is also attributed to the fact that Chlef University professors who have been adopting the traditional education method for a long time, are now obliged to get used to this new learning pattern that requires the acquisition of new skills of remote communication and good manipulation and maintenance of electronics, which prevented them from understanding the instructions given to them for the first time, especially those who didn't receive any kind of Information Technology training during their professional carrier.

This result is also attributed to the inadequate speed of the internet flow in some areas, which created a disparity in the reception and exchange of information, in addition to the occurrence of power outages in Chlef Province and the neighboring regions during the Corona virus crisis.

This result is also attributed to the fact that the concept of e-learning is relatively new. Thus, it is completely logical to be challenging in the beginning, then, users start to overcome its obstacles and adapt to it gradually in accordance with the conditions of the Algerian learning environment, The results of the study are similar to the study results of **(Sahar Salem abu Shokeedem 2020)**, which concluded that the teachers did not receive training in e-learning in Palestine, as well as the study **(Rabeh Briah 2018)** and the study **(Qasir Abdul Razzaq 2019)** that education technology improves students' academic level.

The results of this question are also similar to the results of the study of **(Draissi, Yong, 2020)**, which revealed that the response to the outbreak of (COVID-19) and the implementation of remote education

in Moroccan universities was faced by some difficulties and challenges for both teachers and students, beside the study of (Sahar Salem abu Shokeedem 2020), which concluded that there is a bad Internet flow and a lack of IT equipment for Palestinian teachers. The study (**Rabeh Briah 2018**) and th study (**Kassir Abdul Razzaq 2019**) also confirmed that educational technology improves students' academic level.

Recommendations: The following suggestions and recommendations are : The Algerian University has to offer enough materials to help students acquire IT skills and e-learning techniques in order to facilitate the process of interaction and enable them to benefit from the electronic educational materials.

- motivating students to adapt to remote education by giving them more training courses in information technology.
- Coping with the Corona virus pandemic and quarantine policy without putting any psychological pressure on teachers and students.
- Training and encouraging teachers to communicate with students through social networks and e-mails, since many students have Internet at home.
- Providing students with a computer through installments to enable them to own a computer.
- Algerian universities must pay attention to the introduction of e-learning in university curriculum, and to spread electronic culture among students to achieve maximum electronic interaction.
- combining e-learning with attendance education method in Algerian universities.
- Algerian universities must conduct more research studies to determine the level of e-learning effectiveness based on the actual situation, and organize more remote conferences and seminars in order to help users develop their e-learning skil.

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