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E-LEARNING FOR PHYSICAL EDUCATION STUDENTS DURING CORONAVIRUS PANDEMIC

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Abstracts

Topicality. The Corona virus, which appeared at the end of December 2019, expanded and spread throughout the world, and has become a pandemic threatening all individuals in all economic, political, social, sports, and educational fields. **Research Purpose.** The current study aims to find out the effectiveness of e-learning for physical education students, by analyzing the continuity and obstacles to e-learning, and the extent of students' interaction with e-learning. **Methods.** The e-learning questionnaire was used on physical education students. An online survey was fulfilled by 225 students (male/female) of the Institute of Physical Education and Sports University of Ouargla, in Algeria. **Research Result.** The results showed that the level of effectiveness of e-learning in light of the spread of the coronavirus for physical education students was medium, and the results were the same for the continuity of e-learning, e-learning obstacles, and student interaction with e-learning. **Conclusion.** After the results achieved in the current study, it became necessary to invest in students' positive directions towards e-learning, develop plans and programs to benefit from these directions, and give training courses in the field of e-learning, and emphasizing the need for attention by the university to introduce the method of e-learning in university education.

Key words: e-learning, coronavirus, physical education students.

Моулоуд Кеньоу, Навал Крине. Дистанційна форма навчання для студентів-фізкультурників у період пандемії, пов'язаної з Covid-19. Актуальність теми дослідження. Коронавірус, який з'явився наприкінці грудня 2019 року, поширений по всьому світу і став пандемією, яка загрожує людству у всіх сферах їхньої життєдіяльності – економічній, політичній, соціальній, спортивній та освітній. **Мета дослідження.** Проведене дослідження дало можливість з'ясувати ефективність онлайн-навчання для студентів факультету фізичної культури, шляхом аналізу тривалості навчання та обмежень, а також ступеня взаємодії студентів під час дистанційного навчання. **Методика дослідження.** Була застосована методика анкетування з питань електронного навчання студентів фізичної культури та спорту. Інтернет-опитування пройшли 225 студентів (серед яких – як жінки, так і чоловіки) Інституту фізичного виховання та спорту м. Уаргла, Алжир. **Результати дослідження** свідчать, що рівень ефективності онлайн-навчання для студентів факультету фізичної культури та спорту в умовах коронакризи був середнім, а результати тривалого онлайн-навчання, навчання з обмеженнями, а також з врахуванням взаємодії студентів під час дистанційного навчання виявилися однаковими. **Висновки.** Після отримання результатів дослідження, виникла необхідність розвивати й удосконалювати різні методики онлайн-навчання студентів, розробляти навчальні плани та програми для реалізації впровадження таких методик, навчальні курси з дистанційного викладання, акцентуючи увагу саме на вдосконаленні методики дистанційного навчання в закладах вищої освіти.

Ключові слова: дистанційне навчання, коронавірус, студенти-фізкультурники.

Моулоуд Кеньоу, Навал Крин. Дистанционная форма обучения для студентов-физкультурников в период пандемии, связанной с Covid-19. Актуальность темы исследования. Коронавирус, который появился в конце декабря 2019 года, распространенный по всему миру и стал пандемией, которая грозит человечеству во всех сферах их жизнедеятельности – экономической, политической, социальной, спортивной и образовательной. **Цель исследования.** Проведенное исследование позволило выяснить эффективность онлайн-обучения для студентов факультета физической культуры, путем анализа продолжительности обучения и ограничений, а также степени взаимодействия студентов при дистанционном обучении. **Методика исследования.** Была применена методика анкетирования по вопросам электронного обучения студентов физической культуры и спорта. Интернет-опрос прошли 225 студентов (среди которых – как женщины, так и мужчины) Института физического воспитания и спорта г. Уаргла, Алжир. **Результаты исследования** свидетельствуют, что уровень эффективности онлайн-обучения для студентов факультета физической культуры и спорта в условиях коронакризиса был средним, а результаты длительного онлайн-обучения, обучения с ограничениями, а также с учетом взаимодействия студентов при дистанционном обучении оказались одинаковыми. **Выводы.** После

получения результатов исследования возникла необходимость развивать и совершенствовать различные методики онлайн-обучения студентов, разрабатывать учебные планы и программы для реализации внедрения таких методик, учебные курсы по дистанционному преподаванию, акцентируя внимание именно на усовершенствовании методики дистанционного обучения в учреждениях высшего образования.

Ключевые слова: дистанционное обучение, коронавирус, студенты-физкультурники.

Introduction. At the end of December 2019, Wuhan, China, woke up to a new mysterious virus called Corona Covid-19 [1]. But in a short period, the virus spread to many countries of the world. In January 2020 the World Health Organization (WHO) announced that COVID-19 is spreading, and this poses a threat to global health and the safety of people around the world without exception [2]. In March 2020, the organization confirmed that COVID-19 is a pandemic. As a precautionary step to limit the spread of COVID-19, many cities and provinces in the world have accelerated the application of the lockdown to citizens [3, 4]. With the extension of the closure period to an unknown time, and the number of injuries and deaths increasing, citizens (doctors, professors, employees, workers, students ...) face psychological disorders such as stress, anxiety, fear, depression, sleep disturbance [5]. It also created functional disorders such as high blood pressure, blood sugar levels, and cardiovascular disease [6].

The saying «Maslow before Bloom» is a present saying in the educational and academic fields in light of this crisis that continues to cast a shadow over the entire world [7], the focus has become on basic needs such as physiological needs and safety needs, more than on higher needs such as aesthetics and self-realization [8]. As a primary solution to ensure the course of lessons and lectures, most universities in the world hastened to adopt the e-learning system [9]; where different forms and platforms of e-learning are used in educational practice today [10], and with multiple techniques found sophisticated [11; 12].

This sudden transition imposed by the Covid-19 pandemic from traditional learning to virtual learning is a new challenge [13], especially for institutes and universities considering some deficiencies and limited experience in this field. Which caused disruption in the educational process for university students, whether in lectures or practical lessons that were replaced by electronic platforms [7]. It is known that the specializations of physical education and sports are distinguished from other disciplines, because they depend on the practical side more than the theoretical side; The basic tool is physical exercises, in some Institutes of physical education and sports, the practical side ratio is 65 % at the bachelor's level (<https://istaps.univ-ouargla.dz/>). Considering physical education students are part of university students, a question arises to mind: how effective is e-learning? What are the obstacles that students face when receiving lectures and lessons electronically?

The current study aims to find out the effectiveness of e-learning for physical education students. By analyzing the continuity and obstacles to e-learning, and the extent of students' interaction with e-learning.

Material and Method. *Participant:* The study was applied to a sample of 225 male and female students. The number of BA students reached 130 and the number of Master students reached 95 from the Institute of Sciences and Techniques of Physical Activities and Sports at the University of Ouargla, Algeria. They were contacted through various social media and the official website of the Institute (table 1).

Table 1

Socio-Demographic Characteristics

Variable	Variable Categories	Numbers	Percentage
Levels	Bachelor	130	57,77
	Master	95	42,22
Gendre	Male	215	95,55
	Female	10	4,44

Research Design: Through the literature and previous studies [14; 15; 16] a questionnaire was developed to achieve the objectives of the study. The final form consisted of 26 items divided into three axes: e-learning: Continuity (12 items), e-learning obstacles (08 items), and student interaction with e-learning (06 items). The pentagonal ranking has also been converted into a triple ranking (4 = (1–5), 4/3 = 1,33); Where this value was used to determine the length of the ranking category as follows: 1–2,33 low, 2,34–3,67 medium, 3,68–5,00 high. The psychological characteristics of the questionnaire were also confirmed, as the reliability coefficient (Alpha Cronbach) ranged between (0,90–0,76).

Given the conditions that the whole world is living in and the commitment to distance and home quarantine, it is necessary to use the electronic answer; where students used various social media sites in order to answer the online form between 15 and 20 September 2020. The form was also published on the website of the Institute of Science and Technology of Physical and Sports Activities at the University of Ouargla.

Statistical analysis: SPSS 25 package program was used for the statistical analyses of the data. The mean and standard deviations of all subjects and items were given. The Alpha Cronbach factor was also used to ensure the reliability of the study questionnaire.

Results. *The level of effectiveness of e-learning.*

Table 2

The Means and Standard Deviations for E-Learning Effectiveness

Rank	Axes	N	Mean (M)	Standard Deviation (SD)	Degree
1	The continuity of e-learning	225	2.57	0.90	Medium
2	e-learning Obstacles	225	2.37	0.34	Medium
3	Student interaction with e-learning	225	2.45	0.82	Medium
Total	The effectiveness of e-learning in light of the spread of the Covid-19	225	3.00	0.57	Medium

It is evident from table 2 that the mean of the effectiveness of e-learning in light of the spread of the Covid-19 from the viewpoint of the physical education student has reached (3,00) with a standard deviation (0,57) with a medium degree; the mean of e-learning continuity axis was (2,55) with a standard deviation (0,90), and the mean of Barriers to e-learning axis was (2,37) and a standard deviation (0,82), while the mean of axis teacher interaction with e-learning axis was (2,45) with a standard deviation (0,82).

The level of e-Learning Continuity axis.

Table 3

The Means and Standard Deviations of the E-Learning Continuity Axis

Rank	Items	N	Mean (M)	Standard Deviation (SD)	Degree
1	2	3	4	5	6
1	Students were trained by the university to use e-learning by giving them some qualifying courses during the pandemic.	225	3,22	1,35	Medium
2	The techniques used in e-learning are effective and cover all aspects of the curriculum	225	3,16	1,44	Medium
3	There is a smooth transition from traditional education to e-learning in light of the Covid-19 crisis	225	3,04	1,39	Medium
4	I am satisfied with using the e-learning system as an alternative to the face education system in light of the Covid-19 crisis	225	2,83	1,44	Medium
5	Receiving lessons and lectures remotely was without technical obstacles	225	2,70	1,55	Medium
6	The university provides electronic training extension courses that explain the mechanism of using the e-learning system for teachers during the Covid-19 crisis	225	2,64	1,39	Medium
7	The website design provided by the university for e-learning facilitates viewing and receiving the lesson in an interesting way	225	2,50	1,40	Medium
8	The e-learning system provides direct communication between members of the educational system (administration, teacher, and student)	225	2,28	1,34	Low

End of the table3

1	2	3	4	5	6
9	The university provides adequate technical support to facilitate the employment of technology in the educational material	225	2,26	1,35	Low
10	E-learning technology actively contributes to the continuity and success of the educational process in light of the Covid-19 crisis	225	2,18	1,33	Low
11	Logistical support from the university is available to follow up the educational process.	225	2,16	1,33	Low
12	A guide is provided for using the educational lessons website for students.	225	2,08	1,24	Low
Total	The continuity of e-learning	225	2,57	0,90	Medium

Table 3 shows that the items in the axis of e-learning continuity ranged between medium and low degrees; where the item «Students were trained by the university to use e-learning by giving them some qualifying courses during the pandemic» was the first (M=3,22;SD=1,35), in the other hand the item «A guide is provided for using the educational lessons website for students» was the last (M=2,08;SD=1,24).

The level of e-learning Obstacles axis

Table 4

The Means and Standard Deviations of the E-Learning Obstacles Axis

Rank	Items	N	Mean (M)	Standard Deviation (SD)	Degree
1	The e-learning system is compatible with lectures and theoretical lessons	225	3,90	0,93	High
2	You have enough experience and skills suitable for using the computer and the Internet	225	3,30	1,09	Medium
3	The internet speed is adequate, and I can follow any lecture without any interruption	225	3,20	1,47	Medium
4	Training courses were held, and students were prepared for the mechanism of using e-learning before the Covid-19 crisis	225	2,62	1,48	Medium
5	Power failure occurs while receiving the educational process	225	2,42	1,34	Medium
6	There is difficulty in direct communication between teachers and students (as ideas and opinions can be exchanged through personal confrontation)	225	1,74	1,04	Low
7	The student faces problems and obstacles when studying the subject electronically	225	1,54	0,83	Low
8	Students' interaction with e-learning and lectures was affected by difficult or special living conditions	225	1,52	0,78	Low
Total	e-learning Obstacles	225	2,37	0,34	Medium

It is evident from table 4 that the item of the «E-learning Obstacles» axis ranged between high, medium, and low degrees; the item «The e-learning system is compatible with lectures and theoretical lessons» came in first place (M=3,90; SD=0,93), and the item «Students' interaction with e-learning and lectures was affected by difficult or special living conditions» was the last (M=1,52; SD=0,34).

The level of Student interaction with e-learning axis

Table 4

The Means and Standard Deviations of the Student Interaction with E-Learning Axis

Rank	Items	N	Mean (M)	Standard Deviation (SD)	Degree
1	2	3	4	5	6
3	I feel satisfied when I receive a lecture from a range of e-learning	225	3,32	1,30	Medium
1	I interact with the e-learning system continuously	225	3,20	1,46	Medium

End of the table 4

1	2	3	4	5	6
6	The e-learning method helps in understanding the lessons and lectures clearly and smoothly	225	2,90	2,35	Medium
4	Presenting the lecture electronically provides me with additional skills	225	2,26	1,45	Medium
2	I can ask any questions and inquiries through e-learning	225	1,76	1,15	Low
5	The e-learning system allows me to access the lecture at any time	225	1,36	0,75	Low
Total	Student interaction with e-learning	225	2,45	0,82	Low

Table 4 shows that the items in the axis of Student interaction with e-learning ranged between medium and low degrees; the item «*I feel satisfied when I receive a lecture from a range of e-learning*» was the first (M=3,23; SD:1,30), and the item «*The e-learning system allows me to access the lecture at any time*» was the last (M:3,32; SD:0,75).

Discussion. The results revealed that the effectiveness of e-learning mean of the physical education student was medium. These results are due to the sudden switch from classical education to e-learning at the University of Ouargla. This result agreed with the results of Osipov et al. [17] and Abu Shkheidem and Nour Shedid [14] studies, that was conducted on students of physical education and some other specialties. E-learning requires the presence of an infrastructure such as computers and software approved in education. Dardary et al. [18] pointed out that digital learning has become necessary, but to keep pace with this process, various modern technologies must be available. It also requires an efficient human arsenal that keeps abreast of everything new in the field of informatics and communication [19; 20]. We must not forget that students face some problems, such as the low standard of living; Draissi and Yong [21] and Bhat et al. [22] confirmed that many universities in the world faced difficulties and challenges for both the teacher and the student. Some socio-economic problems cause confusion and fear when taking lessons and lectures [18; 32; 24].

Despite the importance of e-learning at the present time, the sudden change had some effect on physical education students; It is worth noting that physical education students form close relationships with each other and with their teachers. The reason is due to the nature of physical and sports activity, which is considered the mediator, and strengthens social, psychological, thinking skills, and moral action.

Perhaps the experience of moving from education in universities to learning via the Internet during the spread of the Coronavirus epidemic in the local environment was successful. The system and the skills acquired by physical education students in the post-epidemic period can be used in various cases such as increasing independence and obtaining new skills.

Conclusion. After the results achieved in the current study, it became necessary to Invest in students' positive directions towards e-learning, develop plans and programs to benefit from these directions, and give training courses in the field of e-learning, and emphasizing the need for attention by the university to introduce the method of e-learning in university education, and to spread electronic culture among students to achieve the greatest amount of interaction with this type of education, and Providing an appropriate educational structure for the application of e-learning at the university and removing all human, material and technical obstacles that prevent its spread in the educational system in various stages and fields.

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