E-LESSON COGNITIVE ATTAINMENT IN THE PHYSICAL EDUCATION CLASS FOR SECONDARY SCHOOLS

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Article history:		Abstract:
Received:	1st March 2023	The study aimed to identify the effect of using online lesson on the students' outcomes and their cognitive attainment that included in the educational curriculum for the secondary study, where the sample of the study was represented by the ninth grade students (n=522), the researcher used the experimental method by designing Two groups, one experimental and the other control, a theoretical curriculum was prepared which included five axes of games (football, volleyball, basketball, handball and gymnastics), where their (law, historical and skill aspects) were studied, by presenting the curriculum to the members of the control group in an attendance at the school by one lecture per week, while the experimental group was given electronically through videos that include the material in writing with a commentary of their teacher by one lecture per week. The results of the study showed that the experimental group that used E-lesson was superior to the control group that used attendance education, which indicates the effectiveness of online lesson in increasing the cognitive attainment in the physical education.
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1. INTRODUCTION:
The educational institution is the pillar of building generations, and it is responsible for preparing them for the present and the future to elevate society towards progress and sustainability of development. Therefore, the educational institution's inputs should be sober through the scientific material and the way it is delivered to students in line with the reality imposed by the health condition, which has cast a shadow on the course of the educational process and many aspects of human life, including students who have suffered the most from its consequences, as it prevented their regular attendance at schools either completely.

This situation has posed a great challenge to the educational institution that seeks to achieve its educational goals, and it must take into account the situation of students and meet the requirements of their education to enrich the educational process and pass this phase with a sufficient degree of achieving the desired goals .

E-learning technology is considered one of the applications of information cross the distance communication, It has also been used as an independent educational method.

Each method of Education has pros and cons, as is the case with E-learning , as it is not a random method of education, but has its own tools based on foundations and principles, as it has inputs, processes and outputs that care about the content and elements of the integrated educational program, which requires an environment in which interactive digital communication channels between the teacher and the learner are available. As for the disadvantage of the E-learning system that " it develops introversion in students because they are not in a real educational situation and does not focus on all the senses, but only the senses of hearing and sight, with the difficulty of applying evaluation methods, as well as the lack of human presence and human relations between teacher and students, therefore, many students prefer the traditional way of attending lectures" (Salim, 2004).

E-learning requires the availability of a digital scientific material that can be displayed smoothly so that the learner can understand and deal with it. It also requires the teacher's experience in dealing with technology and its requirements through the development of the material, the way it is presented and the appropriate techniques to show the lesson in the best way. the completeness of the educational process is represented by the ability of students to connect with educational material, teacher and the suitability of the content with the age stage. it also requires the availability of a clear and credible assessment of all the components of the educational process to ensure quality through correcting educational process.

Cognitive attainment is "the amount of learning that has been achieved by an individual or amount of experiences and information that the learner acquires as a result of studying a specific subject, course, or educational program". (Sabry, 2002) Cognitive attainment is one of the organized procedures for identifying cognitive aspects through its measurement, so it is considered "the product of what the student has learned from the learning process and is

measured by the degree obtained by the student in the attainment test" (Metwally, 2015). Therefore, "attainment tests measure learning that takes place under relatively specific conditions and in manageable conditions, such as learning that takes place in a classroom or in a specific training program, and that the focus is on the present or the past, that is, what has already been learned" (Allam, 2000).

2- THEORETICAL STUDIES :

E-learning is that kind of student – centered learning, adapted to information and communication technologies in the educational-learning process, It has become one of the most widespread and accelerated learning styles in the present era. It is in line with the accelerated lifestyle that has imposed a lack of time on the majority of individuals due to their association with multiple tasks such as work, social communication, hobbies, study Diversity and other things that greatly exhaust time, which generates pressure on individuals to organize time and resort to the fastest ways to get what they want to save time and effort .

"E-learning does not mean simply deploying computers in classrooms or corridors in government buildings, nor does it mean extending networks and increasing communication capacities , nor does it mean transferring educational content as it is and publishing it on the World Wide Web, E-learning is not primarily technical , but rather adapting technology to facilitate the educational/learning process" (Chan & Al, 1997).

The most important advantages of E-learning is to dispense with the physical components represented by the buildings and furniture necessary for them and the limited number of employees, so we hear a lot about virtual universities that are content with an office or a work room through which the University's real tasks are performed, so E-learning requires only a teacher or facilitator, educational material and a student who communicate through the available means of communication, which facilitates and provides a lot for both the teacher and the learner .

The role of the teacher in E-learning is an interactive role remotely and acting as a facilitator and supervisor for the continuation of learning and providing what the learner needs by clarifying the given educational material, facilitating its understanding and answering its questions, regardless of the place where communication can be from home, office or the headquarters of the educational institution. It is also possible not to abide by the time if the lessons are pre-recorded, as in some curricula, where they are video-recorded and uploaded to education websites so that the learner can browse them at the appropriate time for him/her, Learner is the recipient of the educational material, who may have resorted to choosing this type of education to shorten the distance, time and possibly the material cost, as E-learning is more facilitated with regard to learning requirements, and the role of the learner is either Interactive in an instant, as in the lessons that are broadcast live, or it is non-interactive by browsing the pre-recorded educational material and the learner is required to learn it and answer its questions later .

COGNITIVE ATTAINMENT :

Cognitive attainment is "an organized procedure to measure certain aspects of knowledge aims to measure student's learning outcomes in the form of a test that takes into account the rules of measurement and standardization of honesty and consistency, and that it is the result of what the student has learned from the learning process and is measured by the degree obtained by the student in the exam" (Sayed & Salim, 2004). Attainment tests also "measures learning that takes place under relatively specific conditions and in manageable conditions, such as learning that takes place in a classroom or in a specific training program and that the focus is on the present or the past, Whatever has been learned" (Allam, 2000).

The main objective of the educational process, whether traditional or electronic, and in its various methods and methods adopted in its output, is to reach the learner to the degree of cognitive competence, which can be defined as "the total of the facts, information, skills, mental abilities and experiences acquired by the individual through education or experience, to raise, recruit and employ them in order to face a problem or an educational situation and solve it in a specific situation" (Gokshawe & Khair, 2012). As for sports modernity, cognitive competence refers to the knowledge and skills possessed by a physical education teacher in all related to the sports field of related sciences and support for sports work, from training, teaching and analysis through keeping up with the teacher's development through the latest research and its results .

CHARACTERISTICS OF E-LEARNING (Ibrahim, 2001) :

1. "low costs compared to traditional education".
2-diversity in the provision of educational materials and their expansion through the provision of a comprehensive electronic library .
3-easy to use by the teacher and the learner .
4-provides ways for innovation and creativity by harnessing technology in the output of educational content .
5-slow learners can benefit from E-learning by review to educational content more than once .
6-easy delivery of materials between teacher and learner .
7-reducing the difficulties of language communication between teacher and learner, especially if the studying language is in a second language .

3- METHOD :

The researcher used the experimental method by designing two groups, (experimental-control) by applying a post-measurement for both, where the researcher prepared a theoretical curriculum that included the axes of five games (football, volleyball, basketball, handball, Gymnastics), where their lows, historical and skills aspects were addressed by presenting the curriculum to the members of the control group in attendance at school at a rate of one lecture per week, while the theoretical curriculum of the experimental group was presented electronically through videos that include the material in writing with the teacher of the material commenting on it and at a rate of one lecture per week.

The research community was represented by middle school students in Al- Bat'ha city, numbering (2069) students distributed among (7) schools, and the research sample was represented by the ninth grade students, numbering (637) students for the academic year 2021-2022 , the approved division was adopted by the school administrations that distributed each school grade to several divisions to ensure the spacing between students according to the directives of health institutions and the Directorate of education of Thi-qar governorate, and thus the researcher approved the classes to be half in the control group, and the other half in the experimental group, and excluding schools where the number of classes is odd, where two schools were excluded, Thus, the number of the sample participating in the research reached (522) students.

Homogeneity and Equivalence of the sample :

The homogeneity in the cognitive attainment of the research sample of (522) students was extracted to ensure that it falls under the moderate curve as shown in Table (1) .

Table (1) shows the homogeneity of the sample where N=522

Variable	unit of measurement	Mean	Median	Standard deviation	skewness coefficient
Cognitive attainment	degree	15,52	15,00	1,53	1,19

Table (1) shows that the skewness coefficient of the sample reached (1,19), which is a value located between (+3, -3), which indicates the moderation of the research sample .The equivalence of the two research groups in cognitive attainment was extracted as in Table (2) :

Table (2) equivalence of the two research groups in cognitive attainment

Variable	unit of measurement	control group		experimental group		calculated value (t)	sig
		M	S	M	S		
Cognitive attainment	degree	15,55	1,47	15,65	1,76	0,477	0,638

Table (2) shows that the value of (t) calculated for cognitive attainment is at a level higher than (0,05), which indicates that there are no significant differences between the two groups, and this indicates the equality of the two research groups in cognitive attainment .

MAIN PROCEDURE :

The researcher conducted the final test of the two research groups in the period between 6-22/3/2022 by the researcher and the assistant team consisting of sport teachers who working in the five schools participating in the study. After the research experiment was applied by (8) lectures and an average of one lecture per week, the control group received its lessons in class, while the experimental group received its lessons online.

4- RESULTS :

Table (3)

Shows the differences between the averages of the post-measurements of the control and experimental groups:

Variable	unit of measurement	control group		experimental group		averages difference	t value
		m	s	m	s		
Cognitive attainment	degree	27,85	1,04	33,85	2,25	6	30,90

t value at level 0,05 = 1,69

Table (6) shows that the arithmetic mean of the control group in the dimensional test was (27,85) with a standard deviation of (1,04) , while the experimental group reached its arithmetic mean in the dimensional test (33,85) with a standard deviation of (2,25) with a difference of (6) degrees from the control group ,which indicates the presence of significant differences between the telemetry of the two groups in the tests of 30,90), which is greater than the tabular value (T) of (1,69).

DISCUSSION:

The results showed that there are statistically significant differences between the averages of the two post-measurements of the control and experimental groups in the results of the tests of the cognitive attainment of the physical education lessons and in favor of the experimental group , and the researcher attributes these differences to the effectiveness of the educational curriculum which provided to the two groups, as the control group received traditional direct attendance education by giving them a lesson a week, as this method provides an area for asking questions and discussion that provides the students with knowledge and information accompanying the provided material that helps improve the cognitive outcome, this is consistent with the study of Ahmed Shawqi (Shawki, 2010)and Mohammed Al-Shahat (Al-Shahat, 2002).

As for the superiority in the results of the experimental group in the post-test, the researcher attributes it to the use of E-learning, which was represented by written and photo videos with audio commentary of the teacher, where this content helped students develop their cognitive attainment with a slight advantage over the control group, where the researcher attributes this to the fact that the similar to the hobby of online browsing via mobile or computer, This is confirmed by Hatem Hosni (Hosni, 2013) and Amr al-Sayed (Fahmy, 2019).

CONCLUSIONS :

the results showed the superiority of the experimental group which used E-learning over the control group which used traditional education, It indicates the effectiveness of E-learning in increasing cognitive attainment in the theoretical physical education lesson. E-learning allows the student to review the cognitive material through the mobile device without feeling bored. the traditional verbal or written education is accompanied by a feeling of boredom because it is based on this method from the beginning of life study, which generates repletion among students .

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