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the effect of using a sports educational platform on the cognitive achievement of some team games for fifth grade middle school students

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Abstract

The aim of the research is to influence, using an educational platform, the artistic achievement of some team games, and it adopted experimental users appropriate to the types of research. The research community was determined from the students of the fifth year of middle school at Baghdad Al-Karkh/Second College Secondary School, who numbered (66) students, and two students chose creativity in research from the community itself. Randomization was chosen by drawing a lottery, and (10) students who practiced games and (22) students sensing previous experiences were excluded, and the sample became composed of (34) students. The scale phrases were formulated in its initial form, which numbered (59) phrases, and they were presented to the scientific committee to approve the title of the research, as well as a group of experts, so its phrases were reduced to 40 phrases in its final form, after which the researchers designed the educational platform, then introduced the content for some team games skills, and it became accessible to every student who could The content of the lesson is reviewed through it, and then the scale was applied to the research sample.
Key words: Educational platform, cognitive achievement, team games.

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Introduction

The world is witnessing rapid development and progress in various fields, which has been directly and positively reflected on physical education, which constitutes an important and vital part of modern education. It is a very important factor, so it is necessary to use means and applications to play a role in achieving specific goals for learning and training. Motor learning had the lion's share through the use of modern technologies to learn skills and pay attention to them, as they are the basic foundation. In this way, the researchers agree with what was mentioned by (Fleih, 2022, p. 194). Communication and information technologies have become one of the main and complementary sources of education in schools and universities, through which scientific content can be easily conveyed if used correctly.

The programmed learning that we witness today is used to support the educational process according to traditional learning, and through these technologies, electronic content can be provided, which in turn will enable the teacher or trainer to save time and constitute an advanced model through which it is possible to benefit from its positive impact in the educational field, in addition to the fact that it does not interfere with the traditional learning process, but rather enhances it by providing the opportunity for the learner to return to the material more than once, thus making the starting line for all learners close. Thus, we can say that it will eliminate individual differences, support feedback, and increase the effectiveness of the educational process by being a means of assistance to the learner, developing his skills, and saving time and effort. The researchers see what (Abdul Khaliq, 2021) saw, that the effectiveness of e-learning provides a store of information through the communication network and its programs, which facilitates the process of retrieving material to improve their learning through a comparison system. This leads to an increase in cognitive achievement, which (Abdul, 2020) defined as the knowledge that the learner obtains through the senses first, then mental analysis, and it is subject to sensory and practical tests.

Learning through educational platforms, which are interfaces through which all the contents of the material to be learned and the activities it contains for distance learning can be displayed through communication, interaction, and interaction to obtain various educational programs and information, and is useful because it combines audio, image, and video. The researchers agree with what the researchers (Hassoun, Elham Ali; Matar Shaimaa Abdel, 2021) said: The combination of watching videos, images, and texts with practical application, in addition to the electronic program, increased the opportunities for correct learning, and thus facilitates the process of identifying and learning skills, as the student uses the application and learns through it the skill set in the curriculum in an accurate and detailed manner, the educational steps and common mistakes, as well as correcting mistakes in order to achieve ideal performance. This is consistent with the study (Salem, 2020) that providing an environment rich in educational stimuli such as activities and displaying educational films makes the process of applying performance and acquiring knowledge more exciting.

In light of the current circumstances facing the educational process, which are not known at all times, students have become forced to learn and deal with educational materials available through electronic platforms to compensate for the curriculum of students, teachers and university professors, which prompted them to move to programmed learning through educational platforms, as it is a flexible style that can be relied upon in learning in general and sports skills for team games in particular, as well as the learning movement that must be kept pace with in order to advance the lesson of physical education that keeps pace with the information and knowledge revolution that the world is going through. The researchers see what

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was mentioned by (Abdullah and Saeed, 2021) that modern and new technologies must be used that teach and encourage learners and make them an effective axis in the educational process and the reality of education and support the educational process for team games skills. It has become necessary to use modern platforms and technologies that students are attracted to because it is one of the modern methods that can be used in the educational process in its modern concept of learning based on preferred learning styles that aims to create a distinct educational environment that keeps pace with the needs of each learner. Not only that, but it has become necessary for us to find the most methods and means that are close to the desires The learner and his tendencies. The researchers believe that the best way to attract their passion is to use electronic devices such as computers, mobile phones, and tablets to use them in the learning process. This is consistent with what was mentioned by (Obaid and Jihad, 2021). Motor learning, like other movement sciences, has received the attention of specialists and researchers through the recent studies and research that have been presented. There are many and varied efforts to find means that help learn motor skills and develop them by using technology for skill performance situations and qualifying teachers on how to deal with them, as many of them have weak knowledge of the electronic aspect. There are also no platforms dedicated to learning skills for team games, due to its benefit to educational institutions, as there is no website dedicated to physical education that can provide the curriculum material set by the Ministry of Education. When the Corona pandemic swept the world and e-learning replaced traditional learning, there was no physical education lesson that could be practiced through the platforms. The same applies to the impact of educational platforms on the level of cognitive achievement and learning some skills among students, who have now become the main focus of the learning process. The researchers believe that the educational platform is a type of effective active learning that depends on The student transfers the content outside the classroom and the class becomes more interactive using modern technologies, as well as enriching the lesson with a scientific method through which the teacher can achieve the educational goals prepared and determined in advance.

As for the research problem, the researchers noticed the lack of interest in the physical education lesson, as it did not receive the appropriate attention and was not given enough, so we find most of the students who reach the preparatory stages are unable to perform sports skills, and because some of the physical education teachers do not have enough interest in the educational aspect of learning basic skills, and most of the lesson time is spent on the practical aspect, so we find most of them lose knowledge of the skills they practice, as well as not giving the learner the role he should have through learning and applying the skills and asking the question that comes to his mind, as in programmed learning it must be the focus of the learning process, as well as the lack of time for the lesson and not giving it the appropriate place and occupying it with other materials and supervisory visits that are included in the organizational aspect of the lesson, and all of these matters come together to indicate that they do not practice sports activities, as they were not practiced at all or were not given enough time, so the need has become urgent to search for means and methods of learning that help the teacher and enable students to learn different skills quickly, in addition to enabling the learner to depend on himself and control the skills without the presence of the teacher or coach, provided that he is present in the final stages of Yes, to supervise the learning process and to use electronic technologies represented by designing a sports educational platform for the physical education lesson to enhance the learning of skills and compensate for what was lost during the lesson by the students and to answer the following question: Can this technology represented by the use of an educational

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platform affect the cognitive acquisition of basic skills in team games? To answer this question, we will know it through the results of the research.

Method and tools:

Since the research problem is experimental, the researchers used the experimental design with two groups with pre-tests and post-tests. The research community was determined by the fifth-grade science students of the second Baghdad Karkh College Secondary School affiliated with the second Baghdad Karkh Education Directorate for the academic year 2022/2023, numbering (66) students.

After the research community was determined, the researchers chose the sample using a simple random method by drawing lots. They chose (22) students representing the (C) group for the exploratory experiment, which was used in the skill performance and cognitive achievement test, and (17) students representing the (B) group, the experimental group, which uses the educational platform, and (17) students representing the (A) group, the control group, which uses the teacher's method, and excluding (10) students who practice the games. Thus, the sample percentage reached approximately (84.84%).

Table (1) Population, sample and percentage

ت	The group		Number	percentage
1.	Experimental	العينة	17	84.84
2.	Control		17	
3.	Exploratory		22	
4.	Excluded Students		10	15.15
Total and Percentage			66	99.99

After reviewing many similar studies and research, the researchers selected a group of paragraphs of the cognitive achievement scale test for the research sample, consisting of (59) paragraphs, as this is the scale in its initial form. The researchers distributed them to a group of experts in paper form to a group of professors of faculties of physical education and sports sciences. Each paragraph contained three answer alternatives, and the key to correcting the answer was to give one point for the correct answers to each paragraph or phrase, and to give (zero) to each incorrect paragraph or phrase. The paragraphs of the scale were distributed over the fields (law, basic skills, common errors), and the highest score for the scale was (59) and the lowest was (zero) until the scale reached (40) paragraphs.

Determine the validity of the cognitive test.

To determine the validity of the cognitive achievement scale in its final form, consisting of (40) paragraphs, the aim of the test was to increase the aspect of some team game skills. The scientific material for the study topics was determined for the fifth grade students in the games they practice according to the plan prepared by the Ministry of Education and according to the curriculum set for the preparatory stage, relying on the educational material. After reviewing the sources and the skills practiced, the researchers analyzed the educational material through which they were able to derive the behavioral objectives of the paragraphs. A questionnaire was presented, the axes of which were presented to the scientific committee to choose the research title, represented by the axes (law, basic skills, common errors). The achievement tests (specifications table) were prepared, which included the distribution of questions according to

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the behavioral objectives, in addition to the fact that it gives the educational material its true weight, and through it the behavioral objective can be known. In addition, all of its (40) paragraphs obtained complete agreement in their suitability for the test, with a total of (34) experts, and it became clear that the cognitive (Appendix 3) The researchers developed the test, consisting of (40) phrases. In its final form and answered by multiple choice method, it was statistically processed by extracting the discriminating power as in Table (2).

Table (2) shows the discriminatory power of the scale.

Phrase number	Number of people who answered correctly in the upper group	Number of people who answered correctly in the lower group	Discrimination score value	Twisting	The result
1	24	5	0.864	0.463	acceptable
2	23	2	0.956	0.674	acceptable
3	20	2	0819	0.716	acceptable
4	21	2	0.864	0.463	acceptable
5	24	8	0.729	0.683	acceptable
6	20	2	0.819	0.716	acceptable
7	23	3	0.909	0.755	acceptable
8	21	2	0.865	0.462	acceptable
9	21	1	0.909	0.755	acceptable
10	23	2	0.955	0.674	acceptable
11	23	7	0.728	0.683	acceptable
12	24	4	0.909	0.754	acceptable
13	22	3	0.864	0.463	acceptable
14	22	4	0.819	0.716	acceptable
15	23	5	0.819	0.715	acceptable
16	24	5	0.863	0.463	acceptable
17	23	2	0.956	0.675	acceptable
18	23	4	0.864	0.464	acceptable
19	24	5	0.863	0.463	acceptable
20	24	6	0.819	0.716	acceptable
21	22	1	0.955	0.674	acceptable
22	21	5	0.728	0.863	acceptable
23	23	2	0.955	0.674	acceptable
24	23	3	0.909	0.755	acceptable
25	24	5	0.863	0.463	acceptable
26	23	7	0.727	0.862	acceptable
27	24	4	0.909	0.755	acceptable
28	22	4	0.819	0.716	acceptable
29	22	3	0.864	0.463	acceptable
30	22	1	0957	0.676	acceptable
31	20	4	0.728	0.683	acceptable

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32	22	3	0.865	0.464	acceptable
33	22	2	0.909	0.755	acceptable
34	21	3	0.819	0.716	acceptable
35	24	3	0.956	0.675	acceptable
36	23	7	0.729	0.863	acceptable
37	21	1	0.908	0.754	acceptable
38	22	3	0.865	0.464	acceptable
39	23	2	0.954	0.673	acceptable
40	23	5	0.817	0.714	acceptable

As for the content validity to find the validity of the scale, the researchers calculated the correlation coefficient between the sub-test scores with the total score of the scale and for each paragraph, as in Table (3).

Table (3) shows the discriminatory power of the scale.

Phrase number	simple correlation coefficient	Sig	The result	Phrase number	simple correlation coefficient	Sig	The result
1	0.751	.000	positive	21	0.902	.000	positive
2	0.723	.000	positive	22	0.883	.000	positive
3	0.678	.000	positive	23	0.764	.000	positive
4	0.682	.000	positive	24	0.757	.000	positive
5	0.814	.000	positive	25	0.715	.000	positive
6	0.731	.000	positive	26	0.738	.000	positive
7	0.818	.000	positive	27	0.774	.000	positive
8	0.763	.000	positive	28	0.863	.000	positive
9	0.692	.000	positive	29	0.870	.000	positive
10	0.771	.000	positive	30	0.677	.000	positive
11	0.804	.000	positive	31	0.914	.000	positive
12	0.836	.000	positive	32	0.893	.000	positive
13	0.752	.000	positive	33	0.769	.000	positive
14	0.863	.000	positive	34	0.844	.000	positive
15	0.848	.000	positive	35	0.816	.000	positive
16	0.892	.000	positive	36	0.758	.000	positive
17	0.857	.000	positive	37	0.682	.000	positive
18	0.784	.000	positive	38	0.758	.000	positive
19	0.674	.000	positive	39	0.863	.000	positive
20	0.862	.000	positive	40	0.863	.000	positive

Thus, all scale phrases are distinct.

To find the standard errors of the scale's reliability coefficient, which is one of the most important procedures that researchers should undertake, as the conditions that accompany the process of applying the scale generate errors in the scores that cannot be controlled by the person applying them. The significance of these errors is no less important than relying on reliability to express the acceptance of the scale, as these errors are inversely proportional to the correlation coefficients, i.e. the higher the value of the correlation coefficient, the lower the

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value of the errors. Accordingly, the standard errors of the values of the reliability coefficients were calculated for each of the three methods, as shown in Table (4).

Table (4) shows the scale's stability coefficients and their standard errors.

	Methods of calculating stability	Stability coefficients	(sig)	Notes
1	Cronbach's Alpha	0.829	0.000	acceptable
2	Split-Half Reliability	0.847	0.000	acceptable
3	Spearman-Brown	0.828	0.000	acceptable

- **Test instructions**

The process of setting test instructions is of great importance and cannot be dispensed with to complete the test. Many studies have given attention to the major role it plays in changing or influencing test results. After formulating the cognitive achievement test paragraphs for team games, which amount to (40) test paragraphs, and in their final form, and in light of the opinions of experts and specialists, the researcher must set instructions for answering the paragraphs of the aforementioned test so that they are clear, easy, and understood by those concerned with the test, who are the research sample. Therefore, the instructions included how to answer, which indicates placing a mark (√) in the correct answer field, and the necessity of answering all paragraphs without leaving any of them in the letter (A, B, C), as in, and indicating to them that the specified time is (20-30) minutes, in addition to not writing the name.

- **Correction instructions:**

In order to correct the sample's answers to the cognitive achievement test paragraphs, the researchers prepared model answers for all the test paragraphs after checking them with scientific sources. They were placed in the form of a key to correct the paragraphs of the aforementioned test.

Cognitive Achievement Test Methodology

The study content (research topic) includes the basic skills of team games, which are (rolling skills, suppression in football, dribbling, whipping at head level in handball, facing serve from below, receiving serve in volleyball, chest handing, dribbling in basketball). After completing the identification of the scientific material (the study content) and available in the curriculum prepared by the Ministry of Education, which was presented to the gentlemen experts and specialists in the fields of football, handball, volleyball and basketball for the members of the research community.

After the researchers determined the cognitive test for team games, which is a paper-and-pencil test that included vocabulary that required recognition among given answer alternatives, such as multiple choice.

- **Curriculum design**

The researchers, along with the supervisor and the course professors, prepared the theoretical material for learning basic skills (under study), which was placed on the electronic educational platform, which includes video clips, educational images, and theoretical material. The researchers used scientific sources for the theoretical material, images, and YouTube sites for educational video clips. Thus, the researchers agree with what was stated by (Khader and Jabbar, 2021, p. 135), who say that recently, many and varied efforts have emerged to find ways to deliver the material to be learned and develop it using technology, which allows for repeated

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feedback for weak levels to consolidate and deepen skills until they reach mastery. Using one of the educational programs dedicated to producing platforms and websites, the program (WordPress) version (5.9.1), an educational platform was designed, through which the material vocabulary is collected by combining explanation, images, and videos. The design took into account the gradual provision of information, explanation, and video presentation by seeking the help of some engineers who designed these programs by setting a set of points that can be summarized as follows:

1. The primary goal of creating this platform is to teach the study sample students a set of skills (under investigation).
2. The platform was designed for learners after consulting with designers and specialists. It was developed using WordPress version 5.9.1, which is designed for websites and platforms. A domain is the name of your website, and it is the address users use to access your website. A domain may be a series of letters and symbols, such as www.pe@iraq.com. A domain contains several parts, including:

• Hostname: This is usually "www," which refers to the server that houses the website.
• Domain name: This is the primary part of the domain that is identified and registered, and is usually the name of the organization or brand.
• Domain extension: This refers to the last part of the domain and indicates the type of domain, such as ".com" or ".org."
• The Internet Domain Service Provider (DNS) converts this name to your website's IP address, allowing users to access your website. To register a domain name, contact a trusted registrar and enter the desired name and extension, if available. You can retain your domain for a fee.
• We also need to connect the files placed within the platform (the educational content program, WordPress) to the domain via a dedicated server, which is a computer dedicated to providing specific services to users on the network, such as storing data and files, managing databases, providing email and web services, and other services. The server is an important part of the Internet infrastructure and computing networks in companies and institutions.

1. The educational content provided on the educational platform must be of high quality, based on official sources, and compatible with the level of the sample. The researchers ensured that it was easy to use, simple, and appropriate to the level of the students in the research sample.
2. Security and Privacy: The platform's creators must ensure that the platform is well-secured to protect it. Each user is assigned a username and password without which entry is impossible. The platform was designed, periodically tested, and provided with correct instructions for the user, as well as ensuring its safety and quality. Continuous innovation and development, and proper training for the study sample, are also provided.
3. Technical support: Continuous monitoring of the platform's operation to assist learners and answer their inquiries to ensure a high-level educational experience that meets the aspirations and needs of users, resulting in a final, usable application.

- **The two identification units**

The researchers, accompanied by the course instructor, conducted two introductory lectures for the research sample members (the experimental group) and the support team on Wednesday and Thursday, October 19 and 20, 2022, at 8:45 a.m. The purpose of the lectures was to present the introductory lectures using the educational platform, highlighting its significant role in developing the cognitive aspect and increasing learning through an explanation of the educational material and the accompanying educational and illustrative images and video clips of the skills and theoretical content used for the mathematical skills under study in general,

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followed by a simplified explanation of the skill to the sample members. At the end of the introductory lecture, the researchers posed a general question to the experimental sample members (the extent of the sample members' acceptance of programmed learning). The response was that the sample members accepted and were motivated to apply such a method, as it allows them to review vocabulary, which reduces individual differences, with the possibility of asking any question they may face while conducting the educational units.

Implementation of educational units

1. The researchers determined the main requirements of the experiment, and after referring to the sources, the main aspect of the educational unit was taken. The experiment began on Thursday, October 27, 2022, and ended on Sunday, January 22, 2023.

2. The number of educational units that were implemented using the educational platform, which is 24 educational units, distributed over 12 weeks, at a rate of two educational units per week, Appendix (3), in accordance with the prepared study schedule. The researchers used a set of exercises that the researchers collected, relying on previous studies and his being a physical education teacher and his practice of most team games and what students need to learn skills used during the quarterly school sports competitions, in addition to his use of a group of experts by submitting an electronic questionnaire to choose the exercises practiced for the study sample, which numbered (38). The duration of the educational unit is (45) minutes, distributed over (15) minutes allocated to the preparatory section, general warm-up and physical exercises. As for the main aspect of the educational unit, which is (25) minutes for the educational aspect (10) minutes and the practical aspect (15) minutes for the skills under study, the educational exercises for the skills are taken by the students. Here it is worth noting that the experimental sample took the educational aspect through the educational platform, which will open the way for it To ask questions or any inquiries that they will face while learning the skills, and after the class is divided into the experimental group for the researcher and the control group, the subject teacher will take them and discuss what they learned while taking the subject to be learned orally and according to the duty assigned to them and ask questions and the students' answers. This will give them feedback and review mistakes and thus will provide them with sufficient and additional time to learn through application, repetition and correction. This is the basic foundation of learning. As for the remaining time of the lesson, which is (5) minutes, it was allocated to the final section of the educational unit.

Post-tests of the cognitive achievement test:

The Cognitive Achievement Test will be administered on Monday, Tuesday, and Wednesday, January 23, 24, and 25, 2023, as shown in the final application of the test. Please note that the test is a post-test only, and will be administered at 8:45 a.m.

1. Statistical Methods:

The statistical package (SPSS) and the following statistical treatments were used:

- Arithmetic mean.
- Discrimination coefficient and ease and difficulty coefficient.
- Standard deviation.
- Paired samples t-test.
- Percentage.
- Pearson correlation coefficient.
- Spearman-Brown coefficient.
- Cronbach's alpha coefficient.

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Results:

Table (5) shows the values of the arithmetic means and standard deviations of the differences and the calculated (T) value for the experimental and control groups for the cognitive achievement test.

N	Groups	Sample	Arithmetic mean	standard deviation	Df	T-test	sig	The result
1.	experimental	17	20.529	3.808	32	4.970	0.000	positive
2.	control	17	26.529	3.203	31.086			

Discussion:

Discussion of the results

Table (2) above shows that there are statistically significant differences in the cognitive achievement test for the control and experimental groups in the cognitive achievement scale. No matter how positive the difference is, the learner cannot analyze it unless he has a good level of information about the skills he wants to learn. This is due to the use of programmed learning via the educational platform in terms of planning the educational units prepared by the researchers and implemented by the subject teacher, which made it easier for the sample to understand the skills and know the goal to be achieved, and thus improve information through the role played by the learner and his active role in giving him a greater role in the educational process. This is consistent with the study (Mohsen and Radhi, 2020) that the learning and teaching process must be based on the effectiveness and activity of the student, not on the activity of the teacher alone. Therefore, modern strategies must be applied that contribute to the love of the subject and increase the process of acceptance and understanding among learners. This is consistent with the study (Al-Shantawi and Al-Ubaidi, 2006) that effective active learning gives the learner better opportunities to participate effectively in the educational process, as learners show enthusiasm and drive towards learning, and this is what A study (Farhan, 2014) confirmed that paying attention to the learner and making him the focus of the educational process leads to faster learning that is more effective and time-efficient.

This was clearly evident in the cognitive achievement because the student took the time to learn and review the skills well through the diverse video presentation, multiple images, text and mind maps, which enriched his knowledge with the continuous explanation during the performance of the educational units and provided room for discussion and questioning, which led to a departure from the typical lesson. The researchers believe that learning through the educational platform has a fundamental and major role in increasing their motivation and desire to learn as a result of the use of modern technologies that help the learner to visualize the performance before taking the educational unit and trying to apply what he saw. Also, through it, he can learn the skills in a sequential and gradual manner from simple to more difficult and from the understood to the unknown, in addition to giving him feedback with each stage and reinforcement until reaching a good level as a result of increased practice and repetition with the least number of errors, which increases the learner's knowledge.

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Hadi (2017, p. 62) stated that the cognitive achievement test is "a set of questions and paragraphs that represent the content of the academic subject to determine the student's level of acquisition of information and skills in an academic subject that he had previously learned. It must be well prepared to suit the student's ability and capacity to achieve the desired goal, because the lack of stability of the information for the student will greatly affect his level of thinking and thus affect the skill performance."

The researchers attribute the superiority of the experimental group in the cognitive achievement scale over the control group to the use of the educational platform using computers, mobile communication devices and tablets, which the researchers sought to introduce into the educational program and which was provided by modern technology, which contributed greatly to increasing knowledge and perception of skill to provide the best they have to answer the scale in terms of law, skill performance and common errors that may be exposed to the learner, in addition to the quality of the sample available in the research, as they are students of distinguished schools who have excellent mental abilities, in addition to what the platform added to the excitement of students and increasing their motivation towards learning through the positive atmosphere that the platform employed in the form of effective roles for students to participate, as the student became an influential and main factor in obtaining results and the quality of the mutual relationship between them and the teacher. Learning is an emotional process, as it mixes the active learning position with feelings of excitement and suspense on the part of the student towards the material, so he is characterized by positivity and achieving understanding and feels confident in himself, and this is reflected in the learning outcomes (Ahmed A., 2002). This was confirmed by the study (Katea, 2020) The preparation of the educational program by the teacher that is compatible with the learner's abilities and capabilities according to the correct foundations has a major role in the development process that occurs among students. This is consistent with the study (Ahmed and Shehab, 2020) that the role of the teacher in guiding and monitoring students' performance and exchanging dialogue through mutual questions contributes a positive role to the learning process and skill acquisition. This is consistent with the study (Nasser, 2022) that educational questions help learners analyze and simplify the skill, know the parts of the movement, perceive relationships, and attract students' attention to the skill being learned.

The researchers believe that the process of processing information acquired through the platform is very different from the usual processing method, which affected the process of motivating learners, gaining experience, and increasing their knowledge stock. This was confirmed by the study (Aboud, 2008) that the process of processing information and knowledge acquisition is a reciprocal relationship, as high knowledge acquisition is linked to a positive and effective method of processing information. This is consistent with the study (Eisan, 1994) that there is an increasing interest in processing information and its applications because it is linked to acquiring and storing information. This is also consistent with the study (Musa, 2016) that knowledge is built through the activity of learners and the mechanism of processing information through the integration of new information and experiences.

In addition, the researchers believe that the platform's work and the introduction of educational content through it helped learners activate their mental processes, which affected the level of cognitive achievement. This is consistent with the study (Rumaidh, 2017) that modern electronic educational methods help raise the learner's mental level and lead to positive participation in it. This is what was confirmed by the study (Radi and Hussein, 2011) that preparing an environment rich in influences leads to the maturity of learners' thinking and the

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creation of their abilities such as reasoning, analysis and evaluation, which are mental processes that require continuous thinking.

The researchers believe that the use of the electronic platform helped reduce individual differences among learners through learning according to the learner's ability and capacity. This is consistent with the study (Nasser, 2019) that when the teacher gives the student the opportunity to learn at his own pace, it is considered a means to eliminate individual differences. In addition, collaborative work in acquiring the content of the electronic platform plays a major role in blending learners' ideas and thinking out loud, which contributed to raising their knowledge stock. This is consistent with the study (Hamza, 2020) that the process of exchanging experiences among learners develops higher thinking abilities and skills, especially inference and investigation.

The researchers concluded the effectiveness of using educational platforms and their importance in developing cognitive skills and taking into account individual differences among learners.

The researchers recommend using educational platforms for learning purposes, particularly cognitive skills. They also recommend using different educational platforms and applying them to different age groups and sporting activities.

Appendix (1) Cognitive achievement test for some team game skills (football - handball - volleyball - basketball) in its final form

N	Phrases	Correction keys	the right answer
1.	When dribbling with the chest and pulling the ball to the side, the body position is...	A. Slightly twisted to the side	
		B. Spins when the ball touches the chest	
		C. Spins after the ball touches the chest	
2.	The dribbling skill is defined as...	A. Player moves with the ball under their control	
		B. Stops the ball and controls it	
		C. Controls the high ball	
3.	The player's arm is positioned while dribbling to defend the ball and himself.	A. Forward	
		B. Down	
		C. To the side	
4.	The dribbling skill is defined as...	A. A means of achieving a specific goal or the next activity	
		B. Demonstrate playing skill	
		C. Slow down play	

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5.	The player's body and gaze are positioned while dribbling.	A. Straight and looking up	
		B. Bent forward and looking forward as well	
		C. Backward and looking up	
6.	When I give distant communion I use	A. Front of the foot	
		B. Inside of the foot	
		C. Outside of the foot	
7.	Extinguishing is of several types.	A. With the hands	
		B. With the chest, thigh, foot, and head	
		C. With the head and foot only	
8.	The extinguishing skill includes all parts of the body except	A. Head	
		B. Arms	
		C. Feet	
9.	When I head the ball, the position of the feet is	A. Feet together	
		B. One next to the other	
		C. One in front of the other, open	
10.	When dribbling, the dribbling foot and the ball landing area are the same.	A. Bent over and raised to belt level, with the ball landing in front of the pivot foot	
		B. Extended and raised slightly off the ground, with the ball landing next to the pivot foot	
		C. Raised higher than the belt, with the ball landing behind the player.	
11.	The whip-handling skill is useful if it ends with...	A. Good passing	
		B. Receiving the ball by a teammate	
		C. Accurate shooting on goal	
12.	The whip-handling skill is used by the player.	A. All playing areas	
		B. The (6) meter area	
		C. The (9) meter area	

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13.	When tapping, I use...	A. Palm of the hand	
		B. Wrist of the hand	
		C. Fingers	
14.	The player uses tapping.	A. Surprising the defense and creating a gap in it	
		B. Passive play situation	
		C. Neither of them	
15.	The easiest type of handling for beginners.	A. Tapping by changing direction	
		B. Tapping by changing speed	
		C. High tap	
16.	One of the most commonly used types of handling.		
		A. Running tackle	
		C. Stationary tackle	
17.	The number of handball players is...	C. Lateral tackle	
		A. 5 players	
		B. 6 players	
18.	Handball is similar to basketball in that the dribbling skill (dribbling) is...	C. 7 players	
		A. Catch and dribble with one arm.	
		B. Catch and dribble with two arms.	
19.	The handball goal is 2 meters high and 3 meters wide, thus resembling a goal.	C. A + B	
		A. Lawn hockey	
		B. Futsal	
20.	The ball may not be held for more than 3 seconds, thus resembling a basketball goal.	C. Ice hockey	
		A. Length of attack	
		B. Leaving the team's backcourt	
21.	The length of the service area is...	A-9m	
		B-6m	

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		C-3m	
22.	A volleyball team consists of...	A-12	
		B-10	
		C-8	
23.	A tie-breaker is decided by...	A-1 point	
		B-2 points	
		C-3 points	
24.	Among the conditions required for performing the underhand serve:	Arm Strength	
		B. Arm and Core Strength and Speed	
		C. Core Strength Only	
25.	The serving hand is always...	A. Extended	
		B. Bent	
		C. Away from the Body	
26.	What happens if the serving player touches the service line?	A. Team Loses Serve	
		B. Team Loses Point and Serve	
		C. Serve Regained	
27.	Among the common mistakes when performing the underhand serve:		
		A. Ball Throwed Away from the Body	
		B. Ball Throwed Up	
28.	Know the attempt to put the ball into play, and without it, the play does not begin.	C. Opening Between the Feet	
		A. Setting	
		B. Smashing	
29.	The player advances to receive the ball after gaining an idea of the...	C. Serving	
		A. Ball Speed	
		B. Ball Height	
30.		C. Ball Speed, Height, and Area	

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	The underhand serve is often used because...	A. Ease of Performing	
		B. Forearm Width	
31.	When performing a tap-in with a change of direction, the ball's height is...	C. Does Not Require Great Effort	
		A. At Chest Level	
		B. At Hip Level	
32.	The tap-in with a change of direction is used when the opponent's defense is at a high level...	C. At Knee Level	
		A. Strong	
33.	An important point to consider when performing a tap-in is:	B. Weak	
		C. None	
		A. View of the Entire Court	
34.	Moving within the court by bouncing the ball off the ground with one hand by the attacking player.	B. The Ball	
		C. Neither	
		A. Tap	
35.	When performing a chest pass, the fingers of both hands are...	B. Receive the Ball	
		C. Shoot	
		A. Clenched on the Sides of the Ball	
36.	The goal of the tap-in skill is during an attack.	B. Spread Under the Ball	
		C. Spread on the Sides of the Ball With thumbs behind them	
		A. Reducing the points gap	
37.	When performing a chest pass, the player is allowed to...	B. Engaging the opponent	
		C. Getting rid of the opponent and advancing toward the basket	
		A. Arms are tensed	
38.		B. Pushing is done with the palm	

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	When performing a pass, the player is allowed ...	C. Arms are relaxed and pushing with the fingers and wrist, with the fingers following the ball.	
		A. Any part of the body	
39.	The 8-second rule means...	B. With the foot	
		C. With one or both hands	
40.	The time to leave the backcourt is...	A. Staying in the opponents' restricted area	
		B. Length of the attack	
		C. Neither of these	

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