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Effect of an educational program using blended learning to learning some basic handball skills for middle school students

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Abstract
The research aims to design a proposed educational program using the blended learning method and to know its effect on learning basic handball skills for middle school students. The researcher used the quasi-experimental method. The research sample included (30) students whom the researcher chose intentionally from middle school students in the Republic of Iraq for the academic year (2024/2025). The results showed that the blended learning method contributed positively to raising the level of students' performance in the basic skills of handball for the experimental group. The use of electronic means (text, audio, image, music, video) as an alternative to the standard paper, in addition to the teacher's directions and guidance, contributed positively to increasing motivation among beginners, taking into account individual differences between them and providing feedback from multiple sources.

Keywords: Educational program, blended learning, basic handball skills

Introduction
This era is characterized by rapid changes resulting from scientific and technological progress and information technology, which have turned the world into a small village. Therefore, it has become necessary for the educational system to keep pace with these changes to confront many problems such as the abundance of information, the increase in the number of learners, the shortage of teachers, and the long distances. This change has led to the emergence of many patterns and methods of teaching and learning, which has led to an increased need to exchange experiences with others and the need of the learner for rich environments with multiple resources for research and self-development.

Hence the need for e-learning emerged, as it shifts the educational process from mere indoctrination by the teacher and storage by the student to an interactive dialogue process between the two parties. This is the goal we aspire to achieve to improve the level of education. E-learning enables the student to bear greater responsibility in the educational process through exploration, expression and experimentation, thus changing the roles, as the student becomes a learner instead of a recipient, and the teacher becomes a guide instead of a lecturer.

The concept of e-learning can be summarized as the use of technology and technological means in education, harnessing them for self-directed student learning and making them the focus of the lecture. This begins with the technologies used for presentation, including multimedia and electronic devices, and ends with moving beyond the physical components of education, such as smart schools and virtual classrooms, through which interaction between members of the educational process takes place via the internet and interactive video technologies.

Abdullah Al-Mousa (2002) [18] indicated that e-learning is a method of education using modern communication mechanisms such as computers, their networks, and their various media such as images, sound, graphics, search mechanisms, electronic libraries, and Internet portals, whether remotely or in the classroom (45: 8).

Qiu (2003) [14] sees that e-learning is distance education (Learning Distance) through which the learner is far from the teacher in terms of place and perhaps time, and he presents this through presenting educational courses using modern technologies (68 14).

Al-Gharib Zaher (2009) [2] states that blended learning is an application of old educational strategies with a view to new technological innovations in the classroom. It is characterized by the use of a combination of two distinct learning methods, one of which is concerned with learning in traditional classrooms and the other includes technological learning methods that take place through the Internet and digital technologies. In it, the role of the faculty member inside the classroom is transformed into a trainer and guide for students, and a manager of learning activities. (2: 98, 99)

From this standpoint, integrating the traditional method (the command method) with e-learning techniques achieves maximum benefit for the student and maximum benefit from technological development without disrupting the social aspects of students. When talking about social aspects, the role of cooperative learning in developing social aspects cannot be overlooked, as it is one of the most important modern strategies that aims to improve and activate the ideas of students who work in groups and teach each other. However, it lacks the role of modern technology in developing its data, as it has some shortcomings, such as the criterion paper, which the student finds difficult to deal with, and which is one of the pillars of cooperative learning and the most important, as through it the observing student can evaluate the performance of a colleague in complex motor skills. These skills require an effective means of explaining them to students so that they can understand their various parts and dialogue with their colleagues so that each member of the group feels that they have information that must be conveyed to the other colleague.

This leads to the development of team spirit among students of different abilities, as we do not allow individual differences among students to weaken the team spirit. E-learning, through cooperative learning, helps to form the right direction towards the study materials. In addition, students who work collaboratively in groups can benefit from educational materials better than students who work separately, and they accept their colleagues who are behind in their studies. This is from the perspective of cooperative education. As for e-learning, its concept has changed to include more interactive, more human, and more collaborative aspects through active participation and working together in small groups based on the use of modern technological techniques to provide a rich learning environment that encourages learners to work together and facilitates their effective participation in building knowledge and exchanging experiences while implementing collaborative tasks related to the topics of the educational content.

Hamad Al-Khalidi (2007) [4] states that electronic cooperative learning focuses on educational fields and is used by different or diverse learners working on the same learning subject via computers branching from a main office or via different networks, as it aims to support learners and build new knowledge effectively during the learning process. (4: 46, 95)

It is clear that most studies have confirmed the importance and effectiveness of integrating different learning methods with e-learning in achieving learning objectives through active participation and social interactions between learners. Handball is one of the team games that is characterized by its many skills. Since the success of the team depends primarily on the ability to learn and master these skills, it is necessary to teach them using modern methods that are essentially concerned with the learner in order to improve the quality of learning and its progress, in addition to reducing learning time to reach the best educational level for sports movements in their comprehensive form.

Despite the multiplicity and diversity of teaching methods in physical education and despite the recommendations of research and theses over many years to use these diverse methods and prefer them to the command method, this method is still widely used in teaching physical education. This is what the researcher noticed through his field experience as a handball teacher in middle school and what most studies confirmed. This, if it indicates anything, indicates the effectiveness of this method, but that does not negate the fact that it has clear shortcomings, including its lack of modern technology, while modern educational trends call for the necessity of developing and modernizing teaching methods and call for attention to the learner so that he has an effective role in the learning process.

This is what prompted the researcher to adopt the blended learning method, as it combines the advantages of traditional learning and the advantages of e-learning, and avoids the disadvantages of using technology in the educational process and its impact on the emotional and social aspects. The contemporary trend in teaching methods is the tendency to provide opportunities for each student to learn according to his abilities, potential and readiness and at the appropriate speed so that he can depend on himself, bear responsibility, be positive and cooperative with his colleagues and be in contact with the surrounding environment.

Importance of research

This research derives its importance from the fact that

It is considered one of the first studies that dealt with the use of the electronic cooperative learning method in the field of handball, within the limits of the researcher's readings and his access to references, periodicals, scientific research, and the international information network (the Internet).

Trying to introduce modern educational methods such as blended learning in the field of teaching in general and teaching handball in particular.

The research used the best and most modern technological means in education in order to make the educational process achieve the best desired goals.

Stimulating students' motivation to learn basic handball skills through standardized educational programs and helping students see a correct model of the skill and focus on the difficult points in the movement to raise the skill level.

This research is a new scientific addition, especially in the field of handball teaching

Research objectives: The research aims to design a proposed educational program using the blended learning method and to know its effect on learning basic handball skills for middle school students.

Research hypotheses: There are statistically significant differences between the pre- and post-measurements of the experimental group in some basic handball skills.

There are statistically significant differences between the pre- and post-measurements of the control group in some basic handball skills.

There are statistically significant differences between the dimensional measurements of the two groups. Experimental and control in some basic handball skills.

Study terms: Blended Learning: This type of education uses an effective set of multiple presentation tools, teaching methods, and learning styles that facilitate the learning process. It is built on the traditional methods in which the student meets face to face and e-learning methods. (11: 1)

Research methodology: The researcher used the quasi-experimental method because it is appropriate to the nature of the research by conducting pre- and post-measurement of an experimental group and a control group.

The research community represents middle school students in Di Qar Governorate, Republic of Iraq, for the academic year (2024/2025).

The research sample numbered (30) students, whom the researcher chose intentionally from middle school students in Di Qar Governorate, Republic of Iraq, for the academic year (2024/2025). They were randomly distributed into an experimental group of (15) students, in addition to a control group of (15) students, and a group of (15) students for the exploratory study, as in Table (1) and Figure (3/1).

Table 1: Description of the research community.

No.	Sample	Sample Type	Number	Ratio (%)	Program
1	Primary study sample (30)	Experimental group	15	33.33%	Blended learning
2		Control group	15	33.33%	Command style
3	Exploratory study sample	Exploratory group	15	33.33%	-
	Research community total		45	100%	

Sample selection conditions

They must not have previously learned handball skills

- Regular attendance of the experiment is not less than (80%) of the total lectures.
- To be proficient in using electronic means in students' experience with smart phones.

Verifying the normality of the distribution of the total research sample: To ensure the homogeneity of the total sample of the research (45) students (experimental groups, control group and survey group), the researcher made some anthropometric measurements and chronological age, to ensure the moderation of the distribution of data among the sample members in those variables, as shown in Table (2).

Table 2: Arithmetic means, medians, standard deviations and skewness coefficients for the total sample to investigate anthropometric variables and chronological age. (n=45)

Variables	Unit of measurement	Mean	Mediator	St. d	Coefficient of skewness
Chronological age	year	18.97	19.00	0.59	-0.14
Height	cm.	176.24	176.00	5.11	0.14
Mass	kg	72.23	70.00	11.56	0.58

It is clear from Table (4) that the values of the skewness coefficients were between (-3) and (+3), which indicates that the measurements of the total sample of the research fell under the normal curve, and this indicates the homogeneity of the individuals of the total sample of the research in these variables.

Physical tests under consideration

- The researcher followed the following steps to arrive at the physical tests under investigation
- Reviewing scientific studies and references that address the elements of physical fitness and tests that measure these elements, and that are appropriate for the age group under study.
- Conducting a survey of the experts' opinions on the elements of physical fitness and the tests that measure those elements. The physical tests were arrived at as in Table (3).

Table 3: Physical tests are under investigation.

No.	Physical fitness elements	Test name	Unit of measurement
1	Legs Power	Sergeant's vertical jump	cm.
2	Arm strength	medicine ball push distance	cm.
3	Agility	Zigzag running	second
4	Speed	30m from moving start	second
5	Compatibility	Numbered circles	second
6	Flexibility	forward trunk bend	cm.

Skill tests under consideration

Researchers followed the following steps to arrive at the skill tests under investigation

Reviewing scientific studies and references that address skill tests that measure motor skills and are appropriate for the age group under study.

Conducting a survey of the experts' opinions about handball skills and the tests that measure those skills. The skill tests were arrived at as shown in Table (4).

Table 4: Skill tests under consideration

No.	Motor skills	Test name	Unit of measurement
1	Shooting from the jump	Shooting from the jump	number
2	bouncing the ball	ball dribbling speed	second
3	Passing	scroll speed	second

Verification of the psychometric properties of physical, skill, and technical tests: After arriving at the tests, the researcher found the scientific coefficients for the selected tests to verify their stability and validity, as follows:

Calculating the validity coefficient of the tests under consideration: The researcher calculated the validity of the tests using the discriminant validity method between two groups, one of which was not distinguished (the exploratory research sample) and the other distinguished group. Table (5) shows the significance of the differences between the distinguished and non-distinguished groups in the tests under study.

Table 5: Significance of the differences between the exploratory group (non-discriminatory) and the distinguished group in the physical, skill and technical variables under investigation (n1=n2=15)

Variables			Unit of measurement	Non-distinct group		The featured group		value
				Mean	St. d	Mean	St. d	
Physical	Leg Power	vertical jump	cm.	64.47	9.82	90.67	30.99	3.122
	arm strength	medicine ball throw	cm.	470.00	35.86	510.00	30.71	3.28
	agility	Zigzag running	second	7.36	0.65	6.16	0.46	5.85
	speed	30m from moving start	second	3.57	0.79	2.89	0.39	2.99
	Compatibility	numbered circles	second	5.41	0.99	4.04	0.65	4.48
	flexibility	forward trunk bend	cm.	-5.73	5.01	-13.87	2.95	5.42
	Scoring		number	2.40	0.63	6.73	1.16	12.68
	Ball dribbling		second	11.39	0.77	8.27	1.44	7.41
	Passing		second	11.62	1.18	9.09	1.01	6:30

T C (28, 0.05) = 2.05

It is clear from Table (5) that there are statistically significant differences between the measurements under investigation for the exploratory group - the distinguished group - and the non-distinguished group, as the calculated value of (t) was greater than its tabular value at a significance level of (0.05), which indicates the presence of statistically significant differences between the measurements in all the tests under investigation, which means the ability of these tests to distinguish between levels, i.e. they are valid tests for measuring the characteristics for which they were developed.

Calculating the reliability coefficient of the tests under investigation

To calculate the reliability coefficient, the researcher used the Test -Retest Method on the exploratory research sample, numbering (15) from the same research sample and outside the community sample, with a time difference of (7) days between the first and second applications under the same conditions as the first application. Table (8) shows the reliability coefficient for the tests under study.

Table 6: Stability coefficient between the first and second applications of the exploratory sample in the tests under study (n= 15)

Variables	Tests		Unit of measurement	First application		The second application		value (r)
				Mean	St. d	Mean	St. d	
Physical	Leg Power	vertical jump	cm.	64.47	9.82	70.20	10.36	0.806
	arm strength	medicine ball throw	cm.	470.00	35.86	481.33	35.02	0.981
	agility	Zigzag running	second	7.36	0.65	6.98	0.66	0.823
	speed	30m from moving start	second	3.57	0.79	3.49	0.64	0.743
	Compatibility	numbered circles	second	5.41	0.99	5.55	0.98	0.889
	flexibility	forward trunk bend	cm.	-5.73	5.01	-5.00	5.39	0.839
	Scoring		number		2.40	0.63	2.93	1.10
	Ball dribbling		second		11.39	0.77	10.66	0.81
	Passing		second		11.62	1.18	10.87	1.19

r c (13, 0.05) = 0.514

It is clear from Table (6) that there is a statistically significant correlation between the scores of the exploratory study sample in the first application and the second application of the tests under study, as the calculated (r) values exceeded their tabular value at a significance level of (0.05), and this indicates the stability of the test scores when they are re-applied under the same conditions.

Suggested programs

Despite the multiplicity of course design models, they are very similar in their general framework, as they are almost always devoid of the following stages: (analysis, design, production, experimentation, and evaluation); however, they differ in the tasks specific to each stage, according to the goal that the model seeks to achieve. The previous models can be used to come up with a proposed model that suits the proposed educational program and the command program

(the control group), in an attempt to combine the advantages of each model and avoid its shortcomings. The program consists of five main stages: (the analysis stage - the design stage - the production stage - the initial experimentation stage - the implementation stage).

Formulating educational objectives

General objectives

These are the objectives that are hoped to be achieved upon completion of the program study. They are characterized by comprehensiveness, and the process of determining the course objectives is considered one of the most important steps in preparing programs. The general objectives of the four learning programs consist of (8) main objectives. The content of each program has been divided into (16) lectures, so that each general objective has a module that seeks to achieve it.

Specific (Procedural) Learning Objectives

Procedural or specific learning objectives express attainable goals that occur through direct exposure to education. Their expressions represent more specific learning content and represent measurable outcomes that the learner is expected to acquire after studying the educational content related to these objectives. The researcher formulated procedural objectives for each module. The researcher then presented these objectives in their initial form to a number of experts in the field of handball, curricula and teaching methods in order to be guided by their opinions. The final form of the learning objectives for the four learning programs was reached.

Identify educational content elements and group them into units.

The researcher identified the content elements to achieve the desired educational goals of the educational program, as the researcher derived these elements from the goals that were presented previously. The content of these units changes according to each topic and goal. The following is a model of the elements of the first topic (teaching the skill of holding, receiving, and feeling the ball), as shown in Table (7).

Table 7: details the content elements included in the first lecture of the electronic programs.

Content elements for each lecture	Tasks and activities performed by the student	learning objects
General objective	General objective (teaching the skill of holding, receiving and feeling the ball)	text. still image
Cognitive objectives	Read the general objective of the activity and the educational objectives (cognitive, skill-based, and affective), with an image indicating the objectives.	
Skill objectives		
Affective goals		
Information and knowledge	View skill images	
Skill explanation	Read the technical notes for the performance, with a video explaining these notes in sign language.	video
Educational activity	There are gradual exercises for the educational activity, then the applied activity. The student reads the exercise, watches the picture that indicates it, or watches the video - for each exercise.	text. still image video

Production stage

In the Production and Construction phase, the educational materials and media that were identified and selected in the design phase were obtained, through acquisition from what was available, modification from what was available, or new production. These elements were then digitized and stored, and then the program was written and the prepared scenario was implemented according to the following steps:

Access media, resources, activities, and learning objects

Educational resources for producing multimedia and learning objects were identified. This stage includes a number of procedures and programs used in the production, namely:

Writing texts (Txt): Microsoft Word 2010 was used to write texts for the objectives, content elements, educational activities, and exercises.

Still images: The still images were obtained through search engines on the World Wide Web, in addition to scanning some scientific books on handball.

Video clips: The researcher filmed the exercises for the educational activity and the applied activity for handball students in the fourth year of the Faculty of Physical Education - De Qar University, who were chosen as a model for performance for individual, pair, and group exercises.

Modify media production, resources, activities, and other components

The researcher modified the previous files with the programs specific to each type as follows:

Still images (Image): Most of the images were processed to meet all technical and educational specifications in terms of color and size, using the program (Adobe Photoshop Cs5. Middle Eastern Version).

Video clips: The researcher processed, segmented, and arranged the raw footage using the Video Cutter program to make it suitable for display.

Converting media elements into digital form and storing them: In this step, the course content was programmed, and texts, images, and animations were activated, taking into account simplicity and avoiding excessive distractions.

Evaluation stage

In this evaluation stage, the researcher adjusted the programs, ensured their integrity, and made the necessary modifications to make them suitable for final testing. The evaluation aims to:

Verify the appropriateness of the units to the objectives and sample characteristics: Identifying the problems that

the researcher may encounter during the application in order to address them.

The clarity of images and videos, their presentation, and the accompanying text
The researcher gains experience in applying the experiment to ensure that it is finally conducted well.

Applying the program on a small pilot sample
The program modules were presented to a sample of students from the pilot group, to identify any difficulties they might encounter during the actual implementation of the program, and to attempt to overcome them. After conducting the initial experiment with the students, a number of important observations were identified during the program presentation process, and these were addressed during the main experiment.

Use stage: Use phase is the result of the previous phases, in which the researcher applied the learning programs to the basic study sample (the experimental group), as it includes the basic experimental procedures on fourth-year middle school students in order to achieve the study's goal, which is to teach some offensive skills specific to handball.

Elements and foundations for developing proposed educational programs
The researcher conducted a survey form for experts regarding the elements and foundations of the proposed educational programs for teaching basic handball skills to fourth-year middle school students - Attachment (2) - and the results were as follows:
Program duration: two months distributed over (16) weeks, each week an educational unit of (45) minutes for each educational program, where the application was on The group in one day in a row,

Study Experience Application
The researcher has coordinated the research experience as in each of the following tables:

Table 8: Time distribution of the procedures for implementing the basic experiment

Measurement	from	to	Actions (variables)
Pre-measurement			Physical and skill tests, and homogeneity and equivalence of research groups.
Basic experience			Over a period of (8) weeks, including (16) lectures, each lecture took (45) minutes to implement, as the groups were taught in the same place to avoid the impact of variables.
			After completing the experiment for skill tests, under the same conditions as the pre-test.

Statistical processing
- In the statistical processing of the data in this study, the researcher used the Statistical Package for Social Sciences (SPSS) version (22), using the following parameters:
- arithmetic mean
- The mediator
- Standard deviation
- Coefficient of skewness
- Pearson's correlation coefficient
- t-test for two related samples of data
- t-test for two independent samples of data

Results
The results of the first exam
The first hypothesis states that: There are statistically significant differences between the pre- and post-measurements of the experimental group in some basic handball skills.

Table 9: The significance of the differences between the pre-measurement and post-measurement of the first experimental group (mixing) in the variables under investigation. (n=15)

Tests	Unit of measurement	Pre-test		Post-test		(T) value	Effect size η2
		Mean	St. d	Mean	St. d		
Scoring	number	1.93	0.80	5.33	1.11	12.47	0.917
Ball dribbling	second	11.96	0.79	9.04	0.68	9.95	0.876
Passing	second	11.21	0.75	9.86	0.93	6.21	0.734

T C (14, 0.05) = 2.14

It is clear from Table 9 that the calculated (t) values ranged between (6.21) and (16.10), and to determine the applied significance of the independent variable on the dependent variable, the effect size was calculated using eta square (η2), which expresses the effect size of the independent variable on the dependent variable, and the values of (η^2) ranged between (0.734) and (0.949) This indicates a huge effect size.

Table 10: The percentages of improvement between the scores of the first experimental group (mixed) in the variables under study. (n=15)

Tests	Unit of measurement	Pre-mean	Post mean	The difference s	improvement rate
Scoring	number	1.93	5.33	3.40	176.17
Ball dribbling	second	11.96	9.04	2.92	24.41
Passing	second	11.21	9.86	1.35	12.04

Show the results of the second exam
second hypothesis states that: There are statistically significant differences between the pre- and post-measurements of the control group (commands) in some basic handball skills.

Table 11: The significance of the differences between the pre-test and post-test for the control group in the variables under study. (n=15)

Tests	Unit of measurement	Pre-test		Post-test		(T) value	Effect size η2
		Mean	St. d	Mean	St. d		
Scoring	number	2.40	0.83	4.40	0.74	8.37	0.833
Ball dribbling	second	11.50	0.94	10.70	0.92	5.83	0.708
Passing	second	11.62	1.28	10.33	0.82	6.96	0.776

T C (14, 0.05) = 2.14

It is clear from Table (4/7) that the calculated (t) values ranged between (5.25) and (10.25), and to determine the applied significance of the independent variable on the dependent variable, the effect size was calculated using eta square (η2), which expresses the effect size of the independent variable on the dependent variable, and the values of (η^2) ranged between (0.663) and (0.882) which indicates a huge effect size.

Table 12: The percentages of improvement between the control group scores on the test results under study. (n=15)

Tests	Unit of measurement	Pre-mean	Post mean	The difference s	improvement rate
Scoring	number	2.40	4.40	2.00	83.33
Ball dribbling	second	11.50	10.70	0.80	6.96
Passing	second	11.62	10.33	1.29	11.10

Display the results of the third hypothesis third hypothesis states that: There are statistically significant differences between the dimensional measurements of the experimental and control groups in some basic handball skills.

Table 13: Tests Unit of measurement experimental group

Tests	Unit of measurement	experimental group		control group		Value (T)
		Mean	St. d	Mean	St. d	
Scoring	number	5.33	1.11	4.40	0.74	5.62
Ball dribbling	second	9.04	0.68	10.70	0.92	4.89
Passing	second	9.86	0.93	10.33	0.82	4.94

It is clear from Table 13 that there are statistically significant differences at the level of (0.05) in all variables of the dimensional measurements of the experimental and control groups, as the calculated (t) values were all significant and greater than their tabular value at the level of (0.05) in favor of the experimental group.

Table 14: Improvement rates between (post-) measurements in (skill and technical) variables for the research groups (n1=n2 =15)

Tests	Unit of measurement	Change Ratio	
		experimental group	Control group
Scoring	number	176.17	83.33
Ball dribbling	second	24.41	6.96
Passing	second	12.04	11.10

Discussion

Discussion of the results of the first hypothesis

The results showed a statistically significant effect at the (0.05) level in all variables for the first experimental group, as the calculated (t) values ranged between (6.21) and (16.10). All of them were significant, and the difference was in favor of the post-measurement for the individuals of the first experimental group (blended learning). Table (4/2) also shows the percentages of improvement, as the improvement rates ranged from (12.04%) to (176.17%) in favor of the post-measurement in all variables under study.

Hence, it becomes clear that using the blended learning method to develop offensive skills in handball was effective and had a positive impact on students' achievement. This can be explained and attributed to several factors, including:

The use of the blended learning method has achieved great interaction between the teacher and the learner, and between the learners themselves inside and outside the classroom, which has contributed to the development of offensive handball skills among students. During teaching using the blended learning method, students are exposed to a multi-faceted process, characterized by excitement and diversity, in which all sensory receptors (auditory - sensory - visual - motor) are stimulated, which receive the information necessary for the processes. Perception and building the correct perception, which has a direct impact on motivation towards learning. (7: 58)

Blended learning also encourages students to learn independently and in groups, because the technological means available in blended learning allow for this (the individual He can study by himself by reading a printed text or reading it online while in at the same time, he participates with his colleagues in another country through the network or through conferences. Video in watching a video about the information).

Multimedia and classroom interactions, it encourages creativity and improves work. The traditional educational environment, combined with technological and electronic interaction, includes variables such as practical training, direct and immediate feedback, videos, images, drawings, audio commentary, written texts, and questions that stimulate the student to bring out the best in his ability or skill. These are all variables that work to address all of the student's senses.

Al-Gharib Zaher (2009) [2] indicates that blended learning is designed in light of students' needs with the aim of

increasing their motivation towards achieving educational goals (2:98). This is what the researcher took into consideration during the process of designing the blended learning program. Enaam Haider (2009) [3] also confirms that blended learning is one of the best interactive educational environments that work to attract students' interest and encourage them to exchange opinions and experiences, as it works to achieve integration between theoretical and practical aspects, and provides the opportunity for students to acquire advanced thinking skills, in addition to its role in taking into account individual differences among learners. (3:191)

This result is consistent with the results and conclusions of the studies of Essam El-Din Shaaban (2016) [17], Ruqayya Hamza Kanawi (2016) [5], and Nashwa Ahmed El-Sayed (2013) [12].

Thus, the first hypothesis is validated, which states: There are statistically significant differences between the pre- and post-measurements of the experimental group in some basic handball skills.

Discussion of the results of the second hypothesis

The results showed a statistically significant effect at the level of (0.05) in all variables for the control group, as the calculated (t) values ranged between (5.25) and (10.25). All of them are significant, and the difference was in favor of the post-measurement of the individuals in the control group (commands).

And attribute This is amazing Differences to improve performance The group The officer that I used The method traditional (the explanation or performance The model) in Learning, but a slight improvement in the basic skills under study, and from the researcher's point of view, this improvement is not commensurate with what the student gets from the benefit of the physical education lesson due to the large number of students in the classroom, which constitutes a burden on the teacher compared to the time of the school lesson in which he cannot give the students their right to correct mistakes through the reference and thus master the performance of the skill well. This is what most previous studies agreed upon that compare the different teaching methods with the command method, and this improvement is due to the explanation verbal For skills educated And performance A model for her from during Lecturer or One students Distinguished and practitioners For football hand then training on Skill from before students He does Lecturer Correction Mistakes For learners.

As it lies The reason also in to improve performance The group The officer to Come back The student on This method Followed in rest Materials Scientific that Studying to them as They are They gave Ultimate Their effort In preparation For exam ultimate last the chapter Academic until It is possible to them success that he maximum And their most precious wishes, like that also For assistance students By the book Academic Available The decision On them including Contains it From training Applied For skills educated and the steps educational and the regions Technical she has In addition to sequential images For skills educational inside The book The decision unless that level students The group empiricism It was better Much from The group The officer

This is consistent with what Awatif Sobhi (2006) [19] indicated, that the usual method is based on verbal explanation, distinguished performance, and correction of errors by the teacher, and practice and repetition by the learner. This provides the learner with a good opportunity to train on the skill, which in turn affects the efficiency of skill performance (11: 53).

second hypothesis is valid, which states: There are statistically significant differences between the pre- and post-measurements of the control group in some basic handball skills.

Discussion of the results of the third hypothesis

The results showed a statistically significant effect at the level of (0.05) in all variables in favor of the post-measurement of the members of the experimental research groups (blended learning).

This can be explained and attributed to several things, including: the advantages of blended learning, as the e-learning environment and the Internet are fertile ground for the growth and effective construction of a collaborative learning environment, as it provides the presence of the social aspects of collaborative learning through some available tools that are characterized by cooperation and can be exploited and employed, as well as receiving feedback and evaluation through their colleagues in the team, interaction and mutual dependence between learners, and individual responsibility, as each individual is responsible for mastering the learning provided by the group.

As Afat Mustafa Al-Tanawi (2002) [10] pointed out: Blended learning helps in exchanging new knowledge related to the content with group members and knowledge produced by other groups. The communication theory confirms that the ability to learn is more important than the content of learning, and this is evident through Students watching what their colleagues are doing via electronic means (mobile phone) for other groups and sources that provide the student with educational content and commenting on them leads to an exchange of experiences, knowledge, ideas and viewpoints between the groups, which in turn contributes to the learning of knowledge to a great extent. (10: 172)

Blended learning combines the advantages of traditional learning with those of e-learning. Blended learning is one of the most important applications of communication technology in the field of education, as it is based primarily on the tools provided by this technology, represented by computers and the Internet, which were the reason for its spread and development. It uses all multiple media, including the World Wide Web and its rapid flow of information in various fields to facilitate the student's comprehension and understanding of the scientific material according to his abilities and at any time he wants.

and that Blended learning leads to Ascension With many from Aspects such as cooperation And love the school and health Psychological For students And appreciation self And improve Relationships Social Among students, And it is done Interaction Positive between students in image Accreditation positive mutual Contributes in development bearings Students about teacher that cares By accomplishment Their goals Shared And their peers who They love them (7:189)

Abdullah bin Abdul Aziz Al-Moussa (2002) [20] also pointed out that the use of many audio-visual teaching and clarification methods, which may not be available to many learners, is what makes education more interesting and enjoyable and avoids boredom in traditional education, shortens time and reduces the effort expended in education, the possibility of exchanging dialogue and discussion, quick

and immediate evaluation and correcting errors helps develop the technical aspects of different skills while taking into account the individual differences of each learner as a result of achieving self-sufficiency in using the device and the multiplicity of sources of knowledge through communication with information and knowledge available on the electronic medium that is characterized by easy access to educational content. (8: 79)

Through all of the above, the validity of the (third) hypothesis is achieved, which states that: There are statistically significant differences between the dimensional measurements of the experimental and control groups in some basic handball skills.

Conclusions

Through the research procedures, results and statistical method, the following conclusions were reached:

1. The blended learning approach contributed positively to raising the level of students' performance in basic handball skills for the experimental group.
2. The command method contributed positively to raising the level of students' performance in basic handball skills in the control group.
3. Learning using the blended learning method and through the program followed has an effective impact on improving the level of skill performance, as the rate of improvement for the blended learning group exceeded the rate of improvement for the control group. This indicates the superiority of the experimental (blended) group in most of the progress rates for the skill variables.
4. Use of electronic means (text) - Sound - Image - Music - Video) as an alternative to the standard paper, in addition to the teacher's directions and guidance, contributed positively to increasing the motivation of beginners, taking into account the individual differences between them and providing feedback from multiple sources.

Recommendations

In light of the research results and conclusions reached, the researcher recommends the following:

1. Applying the proposed program using blended cooperative learning in learning handball.
2. The necessity of providing educational programs that rely on electronic means in the field of sports to help students use modern technology and keep pace with the developments taking place in the field of education and learning in order to provide society with a sports education teacher capable of facing the challenges of the future.
3. Conducting further studies and research on the use of the e-cooperative learning method in the field of teaching at the school college level to fully advance the educational process and keep pace with the development taking place in developed countries.

References

1. Al-Zghoul IA, Al-Mahamid SA. Psychology of Classroom Teaching. Amman (Jordan): Dar Al-Masirah for Publishing, Distribution and Printing; 2007.
2. Al-Gharib ZI. E-learning from application to professionalism and quality. Cairo: Alam Al-Kutub; 2009.
3. Haider EA. Blended Learning in Medical Colleges. Journal of Engineering and Technology. 2009;27(5):1-10.
4. Al-Khalidi HK. The role of local and global computer networks in enhancing cooperative learning (a proposed vision). Journal of the Future of Arab Education. 2007;(46):95-110.
5. Kanawi RH. Impact of an educational program using integrated style on learning aiming jump skill and cognitive achievement in handball for students of the College of Physical Education, University of Karbala [master's thesis]. Mansoura: Faculty of Physical Education, Mansoura University; 2016.
6. Abdul Aziz MF. Impact of using cooperative learning on performance level of some basic basketball skills and ethical values among second cycle primary school students [master's thesis]. Benha: College of Physical Education, Zagazig University; 2016.
7. Al-Faqih AI. Blended Learning: Educational Design - Multimedia - Innovative Thinking. Amman: Dar Al-Thaqafa for Publishing and Distribution; 2011.
8. Al-Musa AA. E-learning: its concept, characteristics, benefits, and obstacles. Paper presented at: Future Symposium; 2002; King Saud University, Saudi Arabia.
9. Hassan IDS. Effectiveness of an educational program using mixed learning strategy on academic learning time, physical attributes, and performance level in discus throw. Scientific Journal of Physical Education and Sports Sciences. 2016;(76):Part 2:221-236.
10. Al-Tanawi AM. Teaching and Learning Methods and Their Applications in Educational Research. Cairo: Anglo-Egyptian Library; 2002.
11. Abu Al-Ala A. Political Education for Youth and the Role of Physical Education. Cairo: Dar Al-Nahda for Printing and Publishing; [year not specified].
12. El-Sayed NA. The effectiveness of using blended learning on shot put performance among female students of Faculty of Physical Education, Zagazig University [dissertation]. Zagazig: Faculty of Physical Education, Zagazig University; 2013.
13. Martin RH. How are 6th grade students' cooperative behaviors affected after instruction in cooperative activities in physical education [Internet]. 2004 [cited 2025 Jun 30]. Available from: http://example.com/article
14. Qiu H. Effectiveness of e-learning [Internet]. 2003 [cited 2025 Jun 30]. Available from: file://Files/Slide…1.htm93
15. Taradi K, Taradi M, Radi K, Pokrajac N. Blending problem-based learning with web technology positively impacts student learning outcomes in acid-base physiology. Advances in Physiology Education. 2009;33(1):35-39.
16. Taylor R. A blended online instructional approach to physical education instruction: a combination to enhance student cognitive and physical ability [dissertation]. Ann Arbor (MI): ProQuest Digital Dissertations; 2007.
17. Shaaban S. Analysis of an integrated solar combined cycle with steam and organic Rankine cycles as bottoming cycles. Energy conversion and management. 2016 Oct 15;126:1003-12.

18. Al-Mousa A. E-learning: its concept, characteristics, benefits, and obstacles. Paper presented at: Future Symposium; 2002; King Saud University, Riyadh, Saudi Arabia.
19. Sobhi A. Political education for youth and the role of physical education. Cairo: Dar Al-Nahda for Printing and Publishing; 2006.
20. Al-Moussa A. E-learning: its concept, characteristics, benefits, and obstacles. Paper presented at: Future Symposium; 2002; King Saud University, Riyadh, Saudi Arabia.