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## The effect of educational exercises with the Edga model on the performance of the skills of preparation and overwhelming volleyball beating for students

Shaima Adel Hameed <sup>1</sup>, Nihad Mohammed Alloun <sup>2</sup>

<sup>1,2</sup> University of Baghdad, College of Physical Education and Sport Sciences for women

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### Abstract

The aimed of the research to prepare educational units with the Edge model in performing the skills of the overwhelming preparation and beating of volleyball for students of the second stage in the College of Physical Education and Sports Science, and to know the impact of educational units with the Edga model in performing the skills of preparation and overwhelming volleyball among students of the second stage in the College of Physical Education and Sciences Sports, and the researchers assume that there are statistically significant differences between the results of the tribal and dimensional tests of the experimental and controlled research groups in the performance of the skills of preparing and overwhelming volleyball, and there are statistically significant differences between the results of the dimensional tests of the experimental research groups and the control according to the cognitive preference in the knowledge outcome and learn my skill Receiving the transmission and sending volleyball, I adopted the experimental research curriculum by designing the experimental groups and the two equal controls, while the research community is determined by the students of the second stage in the Faculty of Physical Education, Sports Science/University of Baghdad, for the academic year (2023/2024), the total number of (361) students distributed over (9) study people, The research sample was chosen from them randomly, two divisions, two to reach (64) students by (17.279%) of this society, and then one of these two divisions was chosen randomly, so that its students were the experimental group from the Division (D) and the other from the Division (C) officer with a number of (32) students Each group of them, as was chosen by the students of the Division (G) (10) students of the sample of exploratory experience representing

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<sup>1</sup> (Ph.D.) Student, College of Physical Education and Sport Science, University of Baghdad, Email: [Shaimaa.ali2204p@copew.uobaghdad.edu.iq](mailto:Shaimaa.ali2204p@copew.uobaghdad.edu.iq)

<sup>2</sup> Professor (Ph.D.), College of Physical Education and Sport Science, University of Baghdad, Email: [nihad@copew.uobaghdad.edu.iq](mailto:nihad@copew.uobaghdad.edu.iq) , <https://orcid.org/0000-0002-5354-033X>



(2.77 %) of their origin society, and after identifying the skill technical performance tests for each of the skills, the exercises were prepared and the vocabulary of the Edja model was employed, and applied by the reality An educational unit per week and each skill (4) units to continue the application (8) consecutive weeks and after the end of the experiment, the data was processed with SPSS To be the conclusions and recommendations that the application of the vocabulary of the Edga model in the practical physical education lessons for volleyball has proven suitable for students of the second stage in the College of Physical Education and Sports Sciences, and the Edga model application helps improve the performance of the skills of preparing and overwhelming volleyball in volleyball for students of the second stage in the Faculty of Physical Education and Sciences Sports, they outperform their performance in students who are studying in the way used in the practical lesson, and it is necessary Attention to the inclusion of the vocabulary of the Edga model and its inclusion in educational exercises, so that the teaching of the mind and the body is walking side by side in achieving the goals of the physical education studied practical.

**Keywords:** educational exercises, Edga model, volleyball preparation, overwhelming volleyball.

### **introduction**

Modernity in the methods of teaching physical education, and in teaching volleyball in particular, calls for attention to include everything that the teaching elements need, and not to be satisfied with the practical applications of educational exercises. What is intended from this research is its productivity with the required improvements, or directed towards the mind and body in skill learning in volleyball, that is, the actual need for attention to taking into consideration cooperation in this group game. Considering that the game of volleyball depends on group coordination and interaction between students, and therefore it is necessary for them to have an effective educational model to play a major role in improving students 'learning of the skills of this game, cooperative group cooperation takes place in applying its educational exercises in the classroom environment of the physical education lesson.

“Teaching and motor learning are among the basic and important sciences in the success of sports and building the athlete correctly, starting from the early age stages and at various advanced levels, through the cooperative educational models it provides, such as (the Edga model), which helps learners cooperate in learning motor skills and correcting mistakes jointly)”.Ibrahim 2024, p. 119)

Also“ ,Constructivism focuses on benefiting from recalling previous experiences in the cognitive structure and the interaction between learners with these experiences in current events, and the (EDGA) model is one of these models that derive applications from constructivism, in giving a role to the mind when obtaining knowledge through constructive cooperative learning that is based on knowledge of the skill or activity ”. ))Tsai, 2022, P:143



The EDGA model is also known as “ an educational model based on presenting the educational situation collectively and collaboratively, through which learners are directed to solve it analogously by taking advantage of recalling their previous experiences and investing them in the current educational situation) ”.Al-Awaini, 2021, p. 1)

“The basis of the IDGA model is the interaction between the learner and the teacher, as teaching is designed in such a way that the learner is active in the educational process, not only in receiving information, but also in applying it, analyzing it, and interacting with peers and teachers) .” .Saritepeci, 2022, P: 48(

Also“ ,The IDGA model is an integration of the most important theoretical principles, and learning occurs better when learners deal with problems that increase their motivation towards learning by repeating their attempts to find a solution to these problems in a cooperative manner, and this is what was approved by the constructivist theory, as an educational model is based on presenting educational situations in a cooperative manner by provoking an educational problem and directing the learners to solve it analogously by taking advantage of recalling their previous experiences) ”.Al-Awaini, 2021, p. 1)

as“ The IDGA model is concerned with organization number big from Concepts or Principles and procedures according to Sequential procedural steps And this I mean that it Focus on to organize Regulations Study complete ,or units Educational Great Relatively speaking, as well that this form He depends on Gradient in to learn Concepts and principles And procedures from Simple to the complex ,And who General to Private, connect Relationships Interior And external in Article Educational) ”.Al-Zatma, 2016, p. 12)

so Teaching is based on the IDGA model) EDGA (It reinforces the concept of the active learner, who actively participates in the educational process through continuous interaction, or his use of technology, and by relying on self-learning and benefiting from feedback. Students are encouraged to be independent and creative, which develops their ability to think critically and solve problems. It also focuses on making the learner responsible for his learning process, as this model contributes to developing self-learning skills and continuous interaction with educational content, and is focused on effective learning and continuous interaction with content and teachers, which contributes to Improving learning outcomes. Below are the most important roles of the learner in this model) :Mikhail, 2023, p. 53)

Active and responsibleThe learner in the IDGA model is not content with the role of a passive recipient of information, but is responsible for continuing his learning, which includes active participation in lessons, asking questions, and participating in group and interactive activities.



Participate in evaluating and providing feedbackThe learner is encouraged to participate in evaluating his performance and providing self-feedback, as this supports his ability to identify his strengths and weaknesses and work to improve them constantly, which enhances critical thinking and continuity of learning.

Using feedback for personal development: He learns how to benefit from the feedback provided by his teachers and colleagues to develop his skills, and continuous interaction with this feedback helps improve his performance and develop his cognitive and practical skills alike.

Adapting to technologyThe learner plays an important role in using modern technology in the lesson, and he must be aware of how to benefit from these technologies to enhance self-learning..

Cooperative learningThe IDGA model encourages learners to collaborate with classmates in joint activities, which helps develop effective teamwork and communication skills. Through these interactions, students learn from each other and enhance their shared understanding.

Self-learningThe IDGA model encourages learners to develop self-learning skills, as they are asked to search for knowledge and develop their abilities on their own. This aspect is enhanced by providing activities based on problem solving and investigative research, which allows learners to work independently and build their knowledge in a personal way, which enhances their independence in learning.

Creative and critical thinkingIn the IDGA model, learners are required to be innovative and creative in solving problems, as this model focuses on developing learners' abilities to think critically and make decisions based on analyzing the information provided through challenges and analytical activities.

It is also the role of the teacher in the IDGA model) EDGA (Essential and diverse in enhancing the effective educational process, it revolves around guidance, support, and continuous interaction, which enhances the effectiveness of education and is one of the most important roles of the teacher in this model) :.Mikhail, 2023, p. 55(

A guide and mentor: It acts as a guide rather than just a transmitter of information, as it guides learners on how to search for information, think critically, and self-learn. It encourages interaction and discussion and helps learners develop their analytical and creative skills by investing in dialogue.

Designed for the educational experienceParticipates in designing educational activities that suit the needs of different learners, and relies on continuous evaluation to adjust educational methods. This includes designing interactive, experimental, or technology-based tasks.

Evaluator of progress and continuous learningResponsible for monitoring learners' progress through continuous assessments, as assessments provide the teacher with feedback on the effectiveness of the educational process and the extent of learners'



understanding, which helps in making adjustments to the educational environment when necessary..

Motivator of self-motivation The teacher encourages learners to be responsible for their learning by directing them towards organizing time and managing learning effectively, and helps enhance their self-motivation.

To apply the IDGA model in the lesson, the following basic conditions must be met: (Al-Awaini, 2021, pp. 2-3)

curriculum that must be achieved and limited precisely.

The problem is presented in the educational situation in a fun, attention-grabbing way, through a story, a group of pictures, or a video clip, which the learners can solve based on their previous experiences.

Providing a stimulating learning environment that increases learners' desire to participate in analogical dialogue.

Individual differences between learners must be taken into account when implementing the IDGA model in the lesson.

The steps of the applied IDGA model are as follows: (Hanan, 2021, pp. 4-7)

First: Arousal: Scientific studies and research have proven that any activity undertaken by the learner does not continue or does not begin in the first place without the availability of motivation, and this state is affected by several factors, including the learner's inclinations, interests, needs, and ambitions, the previous success he has achieved, and the reinforcement and feedback he receives. It is not certain that all learners are sensitive to a high or equal degree, and this is evident through what was stated by the cognitive aspect theory, which states that the occurrence of the learning process is the result of changes in the cognitive structure. The learner has this theory, and this theory was based on the ideas of Janbeh, Piaget, and Orbel. One of the most important outcomes of this theory in education is the interest in how knowledge is acquired and not the transfer of knowledge. Therefore, the teacher is considered to be the one who raises the problem, and the teacher must determine all the steps and procedures before application or actual practice in the classroom. This step consists of two steps:

-1 Stimulating previous learning by investing in the learners' previous experiences and information and linking the new lesson. When he presents a problem to the class, the learner cannot stimulate a solution to it from his imagination based on prediction and guesswork, but rather it must be linked to previous learning, and Janihi emphasizes this in his statement that "the learner is ready to learn a new subject when he masters the prior requirements necessary to learn this subject". Janihi added, saying: Let the learner remember the previous information and skills he has, for the purpose of investing in them. In the new lesson, the learner intends to link what he learned previously to the new lesson, and this is done by asking questions such as a quick review or discussing



previous concepts with the learners. This is what learning theories such as constructivist theory indicate that the learner's previous knowledge is the focus of the learning process.

-2Transforming the educational situation into a problem is done by defining the objectives of the curriculum to be achieved and presenting the problem in a fun, attention-grabbing way, through a story, groups of pictures, video clips, etc., in addition to creating a stimulating environment that increases the learner's desire to solve the problem, taking into account the individual differences of the learners and their ages when posing the problem. Learning occurs best if the learners deal with real-life problems, and this is what the constructivist theory called for, that learning occurs best when the learner faces a real, realistic situation or an important problem, and one of the most important The conditions for discovery learning are to arouse learners' interest in the learning topic, by attracting the learners' attention by asking them about the issues related to the topic and its importance to them.

Second: Dialogue: After completing the step of identifying a problem, the teacher wants to inform the learners about that problem by talking to them. This conversation is called the introductory dialogue for the problem, as it gives the teacher information about the learner, the problem, and the extent of the learner's need for his help. Moreover, it provides the opportunity to talk about things related to the problem. This step consists of two steps:

R Collaborative brainstorming: After the teacher provides the learners with the opportunity to raise all their predictions and questions about the topic or problem at hand, he then records all the learners' questions in the form of conceptual maps. It is not permissible to reject any questions by the teacher about the problem, with the need for the teacher to take the side closest to the truth among them, as the constructivist theory called for the need for the teacher to dialogue with the learners and encourage them to participate and express their opinions, and for the teacher to also provide an interactive, constructivist classroom environment for the learners.

R Corresponding groups: The learners are divided into corresponding groups by the teacher, so that each group is composed of a number of learners, and there is another group corresponding to it, meaning that if one group presents certain points of view on a problem, the other group corresponding to it presents the opposing or opposing opinion, and each group provides justifications for choosing those solutions to the other group, and the teacher leaves the dialogue ongoing between the corresponding groups, as this method of discussion and dialogue helps the groups to reach certain results, that is, it facilitates the process of reaching a solution to the problem, and the theory of social constructivism called for this. By focusing on social interaction and the role of language in developing dialogue and thinking processes, it also called for the necessity of creating an educational environment based on dialogue and cooperative learning.



Third: Clarification: Many dialogues take place between the teacher and the learners after the teacher identifies the problem to be solved with the learners in order to collect information about the problem. At this stage, the teacher undertakes the process of commenting on the learners' dialogues using the same notes on the board. He begins by erasing the invalid opinions of them with justification for them and then arranging the others from correct to closest correct. The teacher explains his action by announcing the solution to the problem, displaying the lesson title and objectives, and beginning with an explanation to enhance the validity of the solution. This is done by writing all the dialogues. Learners in the form of a conceptual map or a specific drawing on the blackboard, as conceptual maps are considered among the tools that work to organize, represent, and participate. They are designed to enhance the person's cognitive structure and secrete concepts and proposals. At this stage, the teacher does the opposite method, which is to announce the solution to the problem, and then proceeds to explain the lesson in clear steps. The teacher can rely at this stage on modern technological methods, such as the method of programmed instruction, which relies on the principle of effective answers, small steps, and immediate knowledge of the results, avoiding methods. Coercion in education.

Fourth: Application: Based on the principles of (Bruner) in enhancing learning and integrating them with the steps of (Janet), it is noted that the participation of learners in various educational activities in the classroom leads to an increase in their immersion in the educational experiences, and they become more attentive, and the teacher must be more attentive by studying and understanding the characteristics of the learners in order to be able to deal with the learners, understand them, and encourage them efficiently, as this step is divided into the following three steps:

R The teacher asks the learners to deliberately pose problems similar to the problems presented previously, and the learners think to find appropriate solutions to them, by returning again to the analogue groups that were placed in the dialogue stage, provided that the two groups are facing each other. One of the groups raises a problem related to the topic or close to it, and the other group finds an appropriate solution to the problem based on the correct understanding of the lesson. This evaluation is the extent of the learner's understanding of the lesson and its application in finding similar problems.

R The teacher intends to give an evaluation in the form of an individual written exercise to ensure that the information reaches all learners, and in the event of any defect, he proceeds to provide immediate feedback to correct it.

R To enhance learning and make it sustainable, as the teacher asks the learner to submit a final work or project for what he has learned so that it can be an application of and confirmation of what he has previously learned.

From the above, it is possible for this educational model to apply its vocabulary in a physical education lesson in a way that is consistent with the nature of the educational



and practical aspects of the practical physical education lesson for volleyball, given that it focuses on effective active learning and that its steps do not stop in a specific part of the main section of the lesson. It is possible to employ the vocabulary of the IDGA model in educational exercises to activate the role of students in practice and application by relying on the information they obtain through dialogue and the clarity of presentation of the educational model by stimulating their motivation towards The actual application of the skill based on knowledge of performance and in a cooperative manner allows each of them to know the requirements for learning skill performance and how to reduce common errors, given that the IDGA model makes the educational environment full of monitoring and knowledge exchange processes through group interaction, evaluation and feedback. Also, this model does not require the cost of educational tools or media. Its vocabulary can be applied with ease and without complications that hinder the role of the learner and teacher in this practical lesson and with realism free of exaggeration as a result of the clarity of its steps, as it is The skills of preparation and striking are among the most important skills in the game of volleyball, for their decisive role in maintaining the stability of the team effectively against other teams when competing. Through the experience of the two researchers and conducting interviews with several teachers in the College of Physical Education and Sports Sciences and asking about the use of teaching methods, methods and models in the lesson on working with volleyball, I noticed a weakness in the process of learning these two skills. This may be due to the difficulty of performing them or to the fact that most of the methods and methods used in teaching these skills are traditional, and the lack of effectiveness of the educational units may be due to It is appropriate for the skill, or applying an effective educational model, or applying an appropriate model that does not take into account individual differences between students. All of this generated the following questions for the two researchers that I tried to answer, which are as follows:

- 1 How can I learn the skills of setting up and striking in volleyball using educational models in effective educational units?
- 2 Is the IDGA model an effective model in learning the skills of preparation and crushing?
- 3 Does applying the Edga model have an impact on students learning the skills of setting up and hitting a volleyball smash?

It is an attempt to experiment with one of the educational models whose results may have a positive impact on achieving the objectives of the physical education lesson in volleyball. Thus, the importance of the research is in two theoretical and applied directions. The theoretical importance of both is that its results may be useful in supporting the knowledge of volleyball teachers about how to employ the vocabulary of the IDGA model in educational situations and exercises in the practical lesson of





volleyball. As for the practical importance, it is that the results of this research may be useful in helping students and enabling them to increase their knowledge and learn the skills of preparation and crushing. With volleyball when they apply the IDGA model in their practical lessons, the research aims to prepare educational units using the IDGA model in performing the skills of preparation and smashing with volleyball for the students of the second stage in the College of Physical Education and Sports Sciences, and to identify the effect of the educational units with the IDGA model in the performance of the skills of setting up and smashing with volleyball for the students of the second stage in the College of Physical Education and Sports Sciences. The researchers assume that there are statistically significant differences between the results of the pre- and post-tests for the experimental and control research groups. In performing the skills of preparation and smashing with volleyball, there are statistically significant differences between the results of the post-tests of the experimental and control groups according to cognitive preference in the cognitive outcome and learning the skills of receiving and serving with volleyball.

#### Method and procedures:

The research problem imposed the adoption of an experimental research method by designing the experimental and control groups, which were equal with pre-testing, pre-testing and post-testing. As for the research population, it was determined by the students of the second stage in the College of Physical Education and Sports Sciences/University of Baghdad, for the academic year ,(2024/2023) their total number )361)students distributed among)9(Study sections, from which two sections were randomly selected for the research sample, so that their number reached)64) requesting a percentage (%17.279(of this community, Then, one of these two divisions was randomly selected as its students, the experimental group from Division (D), and the other from Division (C), controlled by the number)32) One student for each group, as chosen from the students of Section (G))10(Students for the survey experiment sample represent a percentage (% 2.77(of their community of origin. Also, to measure the performance of the skill of preparing from above with the fingers, a test (Appendix 1) was adopted, and to measure the performance of the crushing multiplication skill, a test (Appendix 2) was adopted, in each A test in which the student's performance is evaluated from (10) points in the three attempts by three experts, with the test scores distributed as follows: the preparatory section: its score is (3), the main section: its score is (5), and the final section: its score is .(2) In their preparation of the educational exercises, the two researchers deliberately employed the vocabulary of the IDGA model in the practical volleyball lesson after reviewing the educational exercises that the students receive in the method followed with them, and reviewing many sources and scientific specialized studies on volleyball, in order to determine the goal of each exercise for each of the two skills and narrowing it down to this general and specific



goal precisely, for the purpose of preparing educational exercises to suit the students' privacy. The researchers intended to prepare educational units using the IDGA model and employ its vocabulary in them. In order to influence learning to perform the skills of preparation and striking with volleyball, The application is specifically in the main section of these educational units at the rate of one unit per week according to the weekly schedule of the physical education lesson, as they prepared the educational curriculum by employing the vocabulary of the IDGA model in different exercises and educational situations, by adhering to the principle of gradation from easy to difficult in applying these exercises, and ensuring that the contents of these exercises are easy to apply and free of complexity, and with flexibility in implementation in a way that facilitates their application in the educational units in the practical lesson on volleyball, so that the students' tasks in finding Solutions to educational situations in the form of educational problems in a fun way to stimulate their motivation in order to discover and invest in previous experiences with all attention to the questions that arise in the educational environment for the IDGA model to fulfill the tasks and requirements of these educational situations in an effective and active cooperative process to support students' learning of each of the two researched skills, in light of the following:

RA n educational flex is prepared in which an educational model of the stages of performing the sections of each skill is prepared, with a length of (3) meters and a width of (1.10) meters, and is installed in one of the corners of the practical volleyball classroom, for the purpose of clarification and comparison with performance and according to each of the steps of the IDGA model.

R The 32 students in the experimental group are divided into the classroom) A (Divide into four symmetrical groups as close as possible in physical measurements, each group consisting of (8) students.

R The steps of the IDGA model are applied in the educational unit for the practical lesson on volleyball, and in the educational side and the applied side to invest in the interaction of each stage with the other of the IDGA model in an interactive manner in the lesson, meaning that the first three steps of the IDGA model can be benefited from in these two aspects and their parts in the educational unit. As for the application phase of the IDGA model, it is implemented in the applied side, as follows:

First: Excitement: This step includes two implicit steps:

-1 Stimulating previous learning: by investing in students' previous experiences, and linking current educational exercises with previous experiences regarding the two skills, provided that students stay away from guessing or prediction, and are realistic, and support these experiences in the educational section of the educational unit.

-2 Transforming the educational situation into a problem: Here the problem is fun and uncomplicated so that it stimulates the students' attention to the educational model of the stages of skill performance presented through the flex paper, as it stimulates in them



a system of comparison between what has been done and what should be done, in an atmosphere of freedom by returning to the educational model presented with the flex paper so that the performance is compared to the model, thus applying excitement according to the IDGA model in the educational and applied aspects of the educational unit.

Second: Dialogue: After completing the identification of the problem of the educational situation for both the educational exercises for the two researched skills and the practical application, the student wants to tell his peers about the performance requirements, its accuracy, and the application experience he went through, so that this is a type of conversation, which satisfies that matter. The introductory dialogue for the problem, so that the dialogue is applied according to the IDGA model in the educational and applied sides of the educational unit, as this step includes two implicit steps:

-1 Collaborative group brainstorming: This is done by providing an educational environment characterized by students' freedom to ask questions about performance and skills. The teacher engages in dialogue with the students and does not reject any of their questions. He encourages them to participate and express their opinion so that the educational atmosphere is interactive.

-2 Corresponding groups: As mentioned previously, this division allows corresponding groups of students to monitor performance for the purpose of expressing an opinion to the group, which helps in achieving comprehensive knowledge about skill performance, and the teacher provides appropriate time for these group dialogues between groups in an organized manner to express an opinion about the cooperative group interaction for the purpose of supporting the cognitive structure of drawing the motor performance program in the cognitive structure in a way that is free of common errors.

Third: Clarification: After collecting information about the problems of educational situations, the teacher follows up on the dialogues and provides an explanation about the presented model of skill performance, and explains its details along with the goal of each of the details of the movements that are included in the skill performance, and how to enable them to perform the skill. He explains this to the students, indicating the goals of each stage of motor learning for each of the two skills, with a comprehensive explanation and clarity of presentation of the model presented and how to benefit from it immediately before and after each performance, so that the picture of the form of the skill is integrated into the cognitive structure. For students, motor learning for each of the two researched skills is based on knowledge of performance, depends on information about the cognitive structure, and has a meaning based on organizing perceptions around the sections of the skill and then performing them comprehensively, thus applying clarification according to the IDGA model in the educational and applied aspects of the educational unit.



Fourth: Application: The application and actual practice of the exercises are among the most important principles of the IDEA model, as after immersing the students in knowledge about skill performance and actual participation in dialogue and clarification after eliciting experiences, at this stage the teacher proposes the most correct and appropriate application in accordance with the determinants of proper performance in the following three steps:

-1The teacher asks the students to present educational situations similar to what was presented previously, and the students think to find solutions to the problems of these educational situations by returning to the analogue groups in the dialogue stage.

-2The teacher provides comprehensive evaluation and corrective feedback.

-3The teacher enhances learning by students 'final application of what they have learned in the educational unit and works to sustain this learning with encouragement. Planning to implement the IDGA model in the educational unit included employing its vocabulary in educational exercises in practical lessons to learn the two volleyball skills under study (Appendix 3) as follows:

R Introductory section: It aims to prepare the body physically to practice educational motor activity, as this section contains physical exercises for general preparation and special preparation, with a time of (10) minutes, and is left to the teacher without the two researchers interfering in its details.

R Main sectionIts time was (75) minutes, divided into two parts:

u The educational aspect: Its duration is (10) minutes and includes an explanation and presentation of the specific skill model and the role required for students in cooperative learning according to the IDGA model.

u Practical aspect: Its time is (65) minutes and includes practical applications of educational exercises using the IDGA model, that is, this section includes the experimental group students 'practice and application in practice by investing in the steps of the IDGA model.

R Concluding sectionThis section includes general relaxation and calming exercises for the body, as well as a small game for suspense and relaxation. Its duration is (5) minutes, and is left to the teacher without the intervention of the two researchers.

As for the application of the educational exercises in the IDGA model for the students of the experimental group, (4) educational units were allocated to learn the skill performance of each skill, and they were applied at the rate of one unit per week on Mondays. The application of the educational units for each skill continued for (4) consecutive weeks, so that there was an allocation of (4) exercises, the application of which would be (15) minutes for each exercise, with a (5) minute break between them, distributed between the four exercises, and the remaining time was left for the preparatory and final sections of the educational unit without the intervention of the two researchers.

The research experiment began by applying pre-tests according to the test conditions for each of the tests that measure each of the dependent variables, which took place on Wednesday, corresponding to the date (2/28/2024) in the College of Physical Education and Sports Sciences/University of Baghdad/Al-Jadriyah.

The educational exercises using the IDGA model were also applied to the students of the experimental group for the period extending from Monday, corresponding to (4/3/2024) until Monday, corresponding to (22/4/2024). As for the learners of the control group, they learn using the educational method used in their teaching at the college, and it was followed up that they took the same time and number of units to learn to perform the two skills, and the experiment was completed by applying the post-tests on Wednesday. To date (4/24/2024) under the same pre-test conditions.

After completing the experiment, the results were processed with a system) SPSS (to calculate the percentage values, the arithmetic mean, the standard deviation, and the homogeneity of variance test) Liven ,(and test) t-test (for uncorrelated samples, and test )t-test (for correlated samples.

Results:

Table (1) shows the results of the pre-tests between the two research groups

the difference	)Say (	)t(	)Say (	)Live (	+A	Q	Group numbers	And	Dependent variables And the unit of measurement
Not significant	0.813	0.237	0.056	3.79	0.893	2.09	32	empiricis m	Performance preparation skill (score)
					1.194	2.16	32	Female officer	
Not significant	0.929	0.09	0.819	0.053	1.401	1.69	32	empiricis m	Performing the Smash Skill (Class)
					1.382	1.66	32	Female officer	

To express the equivalence and the starting line of non-significance of the statistical difference of the degree)) Say (0.05)< With a degree of freedom (62) and to express the homogeneity of variance of the dependent variables with Levene's test, the statistical difference is not significant to the degree)) Say (0.05)< degree of freedom(62)

Table (2) shows the results of the pre- and post-tests for both research groups

the difference	)Say (	)t(	F-H	F	+A	Q	Comparison	The group and its number	Variables Affiliate
Dal	0.000	32.569	0.95	5.469	0.893	2.09	previous	empiricism (...)	Performance preparation skill (score)
					0.504	7.56	the next		
Dal	0.004	14.684	1.469	3.813	1.194	2.16	previous	The female officer (...)	
					0.897	5.97	the next		
Dal	0.001	18.851	1.547	5.156	1.401	1.69	previous	empiricism (...)	Performing the Smash Skill (Class)
					0.808	6.84	the next		
Dal	0.000	11.8	1.768	3.688	1.382	1.66	previous	The female officer (...)	
					1.004	5.34	the next		

Comparing the pre-post differences for each group with the statistical significance of the score)) Say (0.05)> at a degree of freedom(31)

Table (3) shows the results of the posttests between the two research groups

the difference	)Say(	)t(	+A	Q	Group numbers	And	Dependent variables And the unit of measurement
Dal	0.000	8.759	0.504	7.56	32	empiricism	Performance preparation skill (score)
			0.897	5.97	32	The female officer	
Dal	0.000	6.587	0.808	6.84	32	empiricism	Performing the Smash Skill (Class)
			1.004	5.34	32	The female officer	

Comparing the dimensional differences between the two groups with the statistical significance of the score)) Say (0.05)> At degrees of freedom(62)



### **Discussion:**

From reviewing the results presented in Table (2), it is clear that the students of the experimental and control research groups all improved in their level of performance of the two investigated skills of volleyball in the results of the post-tests compared to what their results were in the pre-tests. The results of the comparison of the post-tests presented in Table (3) also indicated that the students of the experimental group outperformed the students of the control group in improving the level of performance of the skills of preparation and smashing with volleyball, which was in favor of the students of the experimental group, and the researchers attribute the emergence of these improvements among the results of the pre-tests. And the remoteness of the students of the experimental group and their superiority in the results of the posttests to their application of the IDGA model, (Shukur et al., 2022) the good use of its vocabulary in practical lessons had a positive impact on these results, and the sufficient number of lessons for four educational units allocated to learning the skill performance of each skill with this model, and the gradation of educational situations from easy to difficult, as the clarity of the educational objectives helped when transforming the educational situation into a problem and helped provide a stimulating educational environment that increased the students 'desire to participate in analogical dialogue to control the preparation movements and swing the striking arm without bending the joint. Attachment, by taking the correct appropriate position and increasing the ability of students to estimate the height of the ball, and what the IDGA model provided in providing knowledge of performance in a gradual manner also to reduce common errors and then limit them, which had an effective role in their excellence in adapting and matching the steps of the IDGA model with their orientations in how to acquire knowledge from dialogue and cooperative learning in various educational situations and applying it practically in the lesson.(Shukr, 2024)

“When diverse ideas and innovative experiences are exchanged, an environment can be created that encourages innovation in applying volleyball skills. Female students can be inspired by the ideas of others to try new and effective methods) .”.Capranica & Other, 2020, P:165(

Also“ ,cognitive theory explained that learning occurs as a result of the interaction of the individual's mental powers with the stimuli that exist in the environment around him. The proponents of this theory indicated that the learner can be included in the learning process by providing him with the opportunity to choose, practice, (Kadhim, 2023) think, and make his decisions based on his analysis and self-evaluation of the information presented to him. Thus, the learner's activity in the educational situation according to this theory is considered a mental activity based on the interaction of mental powers with educational stimuli and experiences, and then understanding and



perceiving the stimuli, phenomena, and the relationships between them. Learning. (Hindi, 2010, p. 42)

Also“ ,one of the enhancers of supporting motor skill learning is taking advantage of motivation and positivity to achieve improvement in performance, by providing positive feedback that motivates the learner to achieve further improvement in performance) ”.Magill & Anderson, 2014, P: 1)

The two researchers also attribute the emergence of these pre- and post-test results and the superiority of the experimental group students to the Edga model providing an atmosphere of fun in the teacher’s presentation of problems in educational situations that require solutions through application and practice, (Salman et al., 2022) which motivates them to continue attending lessons and interacting between them in a cooperative environment characterized by monitoring and evaluating performance in comparison with the proper performance of each of the skill sections according to the specifications of the continuity of their presentation in Flex, in addition to their receiving feedback from peers and the school throughout the duration of the practical aspect of the lesson. This educational model also allowed For students to recall their experiences in practical practice and link them to current educational situations by investing in the knowledge of performance provided by the educational environment using the IDGA model, as these results have proven that the repetitions of each exercise are appropriate for approximately (15) minutes in the lesson to enable each student to take his actual share of practice actively and effectively .(Jawad, M., & Jabbar Shinen, 2016)

“Teachers can invest in the excitement and motivation of the learners, so that we direct them to planned educational situations so that they accept it, motivated by activity, and work to continue this activity until the learning process takes place within a plan that includes precisely defining the goals to be taught, arousing the excitement and motivation of the learners towards achieving specific goals, maintaining interaction between the learners and teachers, ensuring that learning occurs, and accurately evaluating the goals) ”.Jaber, 2005, p. 72)

Also“ ,group circles can be organized where learners share experiences and advice among themselves, teachers can guide discussion and provide technical supervision, and team performance indicators can be used and evaluated regularly to measure continuous improvement and identify areas that need development) .”Harvey & Other, 2019, P:485)

Likewise“ ,learners must receive appropriate feedback to improve performance and correct errors, and this is done by observing teachers or colleagues and receiving advice and guidance from them, in addition to inquiries from the learners themselves .”.)Bhanu, 2015, P: 146)

Also“ ,the success of teaching is largely linked to the success of the approved educational model, given that it is able to address the weakness of students, the difficulty of the curriculum, and other educational problems. (Kadhim, 2024) The importance of the educational model comes from the fact that it is linked to the academic subject and the learner in an integrated manner in terms of his abilities and needs, ensuring that the goals are actually achieved. This requires collective and





individual processes together in solving various scientific and life problems) ”.Abu Riyash and Qtait, 2008, p. 221)

“Feedback is one of the most important factors that determine the learning of motor skills and the development of motor performance, and most research has shown that feedback increases performance improvement in the early stages of learning) ”.Hassan & Musharraf 2024, 473)

Also“ ,teaching sports motor skills requires continuous evaluation and feedback, as students ’performance is evaluated, constructive comments are given on their performance, and observations and suggestions are provided to improve their level and develop their motor and skill skills. Active learning in skill motor learning encourages systematic thinking and the development of deduction, analysis, and critical thinking skills, through conducting experiments and practical activities, analyzing results, and learning from mistakes. (Wahed Issa et al., 2024) It depends on the integration of different skills and the development of thinking skills, as students are directed to develop plans to achieve goals and employ different skills to achieve the desired results) ”.Mustafa, 2019, p. 127(

“Thinking about performance leads to the activation of new connections between nerve cells, easily through new paths that it did not have before, and in a way that helps provide a new possibility for the mind to produce more mental actions, and in a way that leads the mind to work with better potential, and more widely and efficiently ”. )Carmen & Other, 2017, P: 42()

Likewise“ ,there is no motor learning for performance or skill unless there is organized knowledge about this performance based on the work of the brain in interpreting stimuli through mental processes that would draw motor programs in memory that are appropriate to the level of abilities or abilities that the learner possesses, so that the work or applications are directed towards developing and improving what he possesses, and helping him to draw motor programs in accordance with the model he seeks to reach by activating the comparison system in motor control, (Manaf, 2022) thus targeting the cognitive structure in an applied manner, meaning learning by doing or learning by actually applying what he acquires ”.The learner is knowledgeable) ”.Al-Bayati, 2023, p. 18)

Likewise,“ I use demonstrations and drawings to help clarify the different steps of skill performance that can help learners visualize the required operations and movements. Explaining procedures clearly by providing simplified verbal directions, repeating directions and explaining them in a concise and clear manner, and providing immediate feedback to students supports the required improvements in skill performance)”.Till & Cobley, 2021, P: 81)

“One of the skills that learners acquire by learning using the IDGEA model is to establish the educational goal in the minds of the learners) ”.Zayer et al., 2013, p. 24( As for the improvement in learning to perform the two volleyball skills among the control group students, (Manaf, 2015) the researchers attribute it to the role of the knowledge that the students received that proved useful in the practical lesson, and the use of feedback and continuous follow-up from the teachers in teaching when correcting the common errors in their skill performance, which came to help them form the knowledge they also had in a direction that suits the vocabulary of the teacher’s



educational curriculum followed in the lessons and their applications in the practical aspect of the main section in these lessons and the teachers' follow-up to communicate with the students in The lesson was to identify common errors and correct performance continuously, which led to this improvement in the level of learning these two skills.

As“ one of the natural phenomena of the learning process is that there must be development in learning as long as the teacher follows the steps of the sound foundations of learning and teaching, and in order for the beginning of learning to be sound, the explanation, presentation, and rehearsal of correct performance must be clarified and focused on until performance is consolidated and stable) ”.Al-Hashemi, 2002, p. 102)

Also“ ,students respond cognitively, behaviorally, and effectively to environmental events, but more importantly, they exercise control over their own behavior, which does not affect the environment through knowledge only, but rather in cognitive, emotional, and biological states. This is what Bandura calls mutual determinism, and cognitive processes have a major role in behavior, as Bandura believes that the major function of ideas is to enable the individual to predict events and develop methods that help control what happens in his life) ”.Ghanem, 2011, pp. 22-23)

Conclusions and recommendations:

.1Applying the vocabulary of the IDGA model in practical volleyball physical education lessons has proven its suitability for second-year students in the College of Physical Education and Sports Sciences.

.2Applying the IDGA model helps improve the performance of the volleyball preparation and smashing skills for second-year students in the College of Physical Education and Sports Sciences, and they outperform their performance improvement among students who study using the method used in the practical lesson.

.3 It is necessary to focus on the practical applications of the steps of the IDGA model and employ them towards practice and application based on the discovery of knowledge through collaborative group dialogue to further enable students to achieve learning the required skill performance in volleyball.

.4 It is necessary to pay attention to including the vocabulary of the IDGA model and include it in educational exercises so that teaching the mind and body goes hand in hand in achieving the goals of the practical volleyball physical education lesson.

### **Appendix (1)**

shows the measurement of the technical performance of the preparation skill(Hassanin 2001, 243)

– Objective of the test: Measuring the technical performance of the preparation skill from above with the fingers.

– Tools: Volleyball court, three volleyballs.

– Performance Specifications: The tested student stands in the attack zone in position (2), and the coach delivers the ball by performing the reception skill with two hands from below from position (4) and the student prepares it to position.(3)

– Conditions:

u The tested student performs number attempts to warm up before starting the actual test.



- u Laboratory leads (3 preparation attempts).

- Registration:

- The laboratory's performance in the three attempts is evaluated by experts to calculate the best one, and the grade distribution is as follows:

- u Preparatory section: grade.(3)

- u Main section: its grade is.(5)

- u The final section: its grade is.(2)

- Unit of measurement: (degree).

#### **Appendix (2)**

shows the measurement of the technical performance of the smashing skill(Hassanin 2001, 253)

- Objective of the test: Measuring the technical performance of the diagonal and straight smash skill.

- Tools: Volleyball court, three volleyballs.

- Performance Specifications: The tested student stands in the attack zone in position (4), and the coach delivers the ball by performing the preparation skill from position (3) and the student hits it to the defense zone in the opponent's court without specifying the location of the ball within the boundaries of the court.

- Conditions:

- u The test student performs smash attempts to warm up before beginning the actual test.

- u Test lead (3 smash attempts).

- Registration:

- The laboratory's performance in the three attempts is evaluated by experts to calculate the best one, and the grade distribution is as follows:

- u Preparatory section: grade.(3)

- u Main section: its grade is.(5)

- u The final section: its grade is.(2)

- Unit of measurement: (degree).



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