



## Article

# The Effectiveness of The Woods Models According To The Levels of Biggs (Superficial - Deep - Collection) In Improving The Learning of Some Basic Basketball Skills for Students

Thabet Bdiwi Odeh<sup>1</sup>, Nawfal Qahtan Mohammed<sup>2</sup>, Qusay Rashid Sabti<sup>3</sup>

1. Ministry of Education, Directorate of Education, Al-Anbar Governorate, Iraq
2. Ministry of Education, Directorate of Education, Al-Anbar Governorate, Iraq  
Al-Ma'arif University College, Faculty of Physical Education and Sports Sciences
3. University of Anbar: College of Physical Education and Sports Sciences, Iraq

\* Correspondence: [thabetbdaiwi@gmail.com](mailto:thabetbdaiwi@gmail.com)<sup>1</sup>, [nufalq@gmail.com](mailto:nufalq@gmail.com)<sup>2</sup>, [qussay.r.s@uoanbar.edu.iq](mailto:qussay.r.s@uoanbar.edu.iq)<sup>3</sup>

**Abstract:** Educators at the present time tend to search for new methods that enrich the process of skill learning in order for teachers The learner is an important axis in the learning processes and not to neglect the cognitive aspects of the construction complementary to the skill performance, as the selected methods or models simulate the ideas, behaviors and needs of individuals and by linking experiences, and giving them sufficient freedom for learners to interact, and the research aimed to prepare an educational program according to the levels of Biggs (superficial - deep - Collection) and to know its effectiveness in improving the learning of basketball skills, the curriculum was used Experimental research by designing three groups according to the division of the sample using the Biggs Learning Scale, and the randomly selected research sample reached (30) students, representing the first stage of the Faculty of Physical Education and Sports Sciences - Al-Maaref University University in the city of Ramadi, and the application of the program took (6) weeks by two educational units per week, and according to the college's special lessons curriculum for the academic year (2023-2024), and after the end of the educational program for the Woods model, the researchers concluded that the educational program using the Woods model according to the levels of Biggs (superficial - deep - Al-Tahali) was effective in improving the learning of basic basketball skills (chest handling, paltry by changing direction, peaceful correction) for students, and the students of the experimental group outperformed the specifications of the deep level on the experimental groups superficial and Collection, and one of the most important recommendations was to benefit the teachers of basketball in the faculties of physical education and sports sciences from the results of this study, and take into account the individual differences between students and choose the appropriate method and stand on their mental levels.

**Keywords:** woods model, skills, basketball

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## 1. Introduction

Educators at the present time tend to search for new methods that enrich the skill learning process in order for the learner to be an important focus in the learning processes and not to neglect the cognitive aspects of building complementary to skill performance, as the selected methods or models simulate the ideas, behaviors and needs of individuals and by linking experiences, and giving them sufficient freedom for learners to interact.

Constructivist theory is one of the theories that issued a number of learning models, as it set its goals to make learners reach adaptations to face problems through teamwork subject to guidance and follow-up, as it achieves “the link between the cognitive structures of the educated student and his new experiences acquired, thus becoming a meaningful model learning”.

One of these models is the Woods model, which includes stages, namely: prediction, observation, and interpretation, and the purpose of these stages was “to help learners to get rid of any misconceptions of the practice of mental processes to change the cognitive structure and develop brain skills”.

On the other hand, the motor learning process requires taking into account a number of influencing factors, not all learners have one level of perception, individual differences are a challenge for the teacher to transfer knowledge, and the Biggs method has appeared, which explained a number of internal relationships between those factors that are due to personality and factors due to the learning environment and the extent of their impact on learning outcomes, and that this diversity has led to different levels on educational outcomes and called the triple model of learning, many cultures carried by the individual Such as intelligence and its heritage, the family to which it belongs, and many of the experiences gained all interact to gain values, and I interpreted learning into three methods: superficial, deep, and Collection, and each method has two elements that unite, including motivation and strategy.

The game of basketball is one of the games full of diverse skills, which learners should master its skill, improve performance, realize the details of technical performance and apply its movements, so the importance of research resulted in confronting traditional methods of learning and giving students the opportunity to improve the skill in a way that takes into account cognitive structures and individual differences through the Woods model according to the superficial, deep and Collection Bigs method to improve learning some basic basketball skills.

The teachers of the faculties of physical education have a priority in improving the learning models used by choosing the strategy, method, and method, and that the real desire for positive learning is to create interaction between students and the teacher, taking into account their individual differences, to face the methods that have been repeated and that do not add anything of change has led to boredom and loss of learning time, so this can be confronted through an experimental study of the Woods model in a biggies style to improve learning basketball skills, so the researchers ask the following question: Is there an effectiveness of the Woods model according to the levels of Biggs in improving the learning of some basic basketball skills for students of Al-Maaref University - College of Physical Education and Sports Sciences.

#### **Objectives of the study:**

- Preparing educational units in the Woods model according to the levels of Biggs in improving the learning of some basic basketball skills among students.
- Detecting the effectiveness of the Woods model according to the levels of Biggs in improving the learning of some basic basketball skills among students (chest handling, patting, peaceful shooting).

#### **Hypothetical study:**

- There are significant differences between the results of the pre- and post-tests for the three groups in improving the learning of some basic basketball skills for students (chest handling - tabtaba - peaceful correction).
- There are significant differences between the results of the post-tests between the three groups in improving the learning of some basic basketball skills for students (chest handling - tabtaba - peaceful correction).

#### **Define terms:**

- Woods model: It is “a set of actions defined by the teacher according to three sequential mental processes that begin with prediction, observation, and interpretation, as students apply them in small groups” [1], [2].

Biggs’ method of learning: “a method of accomplishing the contents of the lesson by memorization, memorization, and remembering, and is a preferred way for students to receive educational material”.

## 2. Materials and Methods

### Study Design:

The researchers used the experimental approach by designing three groups that are not equal in number according to Biggs’ method of learning.

### Participants:

The research community included students of the first stage of the academic year 2023-2024 - Al-Maaref University College - Department of Physical Education and Sports Sciences, who numbered (90) students for the morning study who were deliberately selected, and distributed over (3) divisions (A, B, C) by (30) students for each division, and that the reason for determining the community is that basketball is a lesson within the methodological lessons, as well as facilities by the subject teacher to implement the study.

For the purpose of selecting the sample in order to represent the community accurately, the random method of selection was chosen Division (A) to apply the research experiment, as they were divided into (3) groups after distributing the Biggs scale to the research sample to determine the students according to their educational levels, which are the level (superficial, deep, and Collection), through their answer, and (5) students from Division (B) and (5) students from Division (C) were selected as a sample for the exploratory experiment, as shown in Table (1).

**Table 1.** The description shows the distribution of the research sample according to the levels of Bigs

Division	Number of students	Surfactant Group	Deep Collection	Collection Group
A	30	12	8	10

### Sample homogeneity Education :

**Table 2.** Shows homogeneity using the coefficient of variation (n = 30)

Variables	Units of measurement	Going to	on	Coefficient of variation
Length	Centimeters	171,87	5.56	3.23
Weight	Kg	73,22	11.45	15.63
lifetime	months	245	17.74	7,27

Table 2 shows that the sample is homogeneous because the coefficient of variation for all variables was less than 30.

### Means, devices, and research tools:

1. Means of data collection:
  - Arabic and foreign references
  - Supporting Team\*.
  - Tests and measurements.
  - The Biggs scale to determine learning levels.
2. Devices and Research Tools:
  - HP-type computer.
  - Medical scale.

- Casio stopwatch number (2).
- Legal basketball number (20).
- Tape measure.
- Whistle number (2).
- Flex demonstrates the technical performance of the skill.
- Shark-type TV screen to display the technical performance model of the skill.

#### Skill Research Tests:

After the researchers reviewed the scientific sources for the research tests, the skill tests that enjoy honesty, stability, and objectivity were identified, as follows:

- 1- Test of direct chest handling with arms: (handling and receiving the ball towards the wall from a distance of 2.70 meters)
- 2- Tabtaba skill test: (from the high start of Tabtaba by changing direction between 6 and Shakhash distance of 13.50 meters round-trip) [3]
- 3- Peaceful correction skill test: (peaceful correction after performing the skill of Tabtaba) [4]

\* Assistant Team: Eng. Louay Mashaan, Eng. Mustafa Mohamed, Eng. Louay Mowafaq...

#### Field Research Procedures:

##### Exploratory Search Experience:

For the purpose of verifying the accuracy of the work, the researchers applied an exploratory experiment on Tuesday, 16/4/2024 on the sample of the exploratory experiment, numbering 10 students, and the aim of the exploratory research experiment was to achieve the following :

- 1- The main research sample should understand the procedural steps for the application of the test.
- 2- The time for each test shall be determined.
- 3- Determine the adequacy of the assistant work team.
- 4- Identify any obstacles that may appear in the future.

##### Pre-test:

After preparing the test tools and registration forms, the assistant work team, and the researchers followed up, conducted the pre-test of the three research groups on (Saturday) 20/4/2024, and after processing the data using statistical means (analysis of variance), the equivalence of the groups was verified, as it was found that there were no significant differences by extracting the calculated value (q) for the research variables, which is smaller than the tabular value (q) of (3.35) at the level of significance (0.05), and the degree of freedom (2.27), which indicates the equivalence of the three groups, Table (3).

**Table 3.** The equivalence between the three groups (superficial, deep, and Collection)

test	Units of measurement	Contrast source	Sum of squares	Degrees of freedom	Average squares	Calculated value (q)*	Moral
Thoracic Handling	second	Between groups	0.1	2	0.05	0.02	Immoral
		Inside groups	47.76	27	1.76		
Patting changes direction	second	Between groups	0.22	2	0.11	0.04	Immoral
		Inside groups	65.27	27	2.41		
Peaceful correction	degree	Between groups	0.14	2	0.07	0.05	Immoral
		Inside groups	33.72	27	1.24		

\* Tabular value (P) (3.35) at the level of significance (0.05), and the degree of freedom (2, 27)

### **Induction Study Unit:**

Before the implementation of the main research experiment, an introductory unit was conducted on the members of the research sample (the three groups) that was applied by basketball teachers on 23/4/2024 on Tuesday, and the aim was to achieve the following:

- 1- Students should be introduced to the Woods model, its procedures, and applications
- 2- Students should have a complete perception of the lesson plan in the Woods model [5], [6].
- 3- To generate conviction among the students participating in the research experience of the importance of the model and the role of scientific research.
- 4- Ensure the validity and safety of the prepared exercises and that they fit with the basketball lesson schedule, which was determined by chest handling and tabtaba by changing direction and peaceful correction.

### **Basic steps for preparing the curriculum for the Woods model:**

After reviewing similar studies that dealt with the Woods model such as, and the researchers were able to number educational units, organize their contents and sections, and set behavioral, educational and educational goals, which took (6) weeks, with two educational units per week (12 units), and within the weekly lesson schedule for basketball from Saturday and Tuesday, and the following was taken into account:

- 1- Taking into account the diversity of exercises, the change in their formations, and the way they perform
- 2- Allowing students to discover the errors of the artistic presentation committed and work to correct them by going to the display screen to see the correct typical artistic relief [7].
- 3- The three stages of Wood's should be achieved sequentially.
- 4- The questions directed to students should be from the method of artistic presentation of the skill to be taught, and they should be uncomplicated and clear for the purpose of achieving the ability to predict and think about the skill [8], [9].
- 5- Taking into account the theoretical and practical level of students.
- 6- All three groups share the same prepared educational curriculum and lesson plan in their sections, and the following is an explanation of the sections of the educational unit, which takes 90 minutes.

A- Preparatory Department (time 20 minutes), taking into account administrative cases, organization, and preparing students' bodies for the main unit section. Included:

- Introduction (5) minutes to record students' attendance and hear expressions of encouragement for the purpose of perseverance, and start the lesson [10], [11], [12].
- Warm up the year (5) minutes, activities, prepared, and various exercises, and emphasize physical abilities by performing walking exercises, running, and various exercises such as jumping and speed exercises...
- Special warm-up (10) minutes, special warm-up exercises were developed according to the specificity of the learned skill, taking into account the kinetic sequence of different abilities [13], [14].

B- The main unit section (60) minutes, and included two aspects:

- The aspect of teaching the skill: (20) minutes, and the teacher explains a detailed explanation of the skill and explains the method of his artistic presentation with the use of a display screen and paintings for the typical artistic performance, then this is followed by dividing the students into four groups to install those groups and the teacher begins to apply the stages of the Woods model, and it includes the stage of (prediction) and this is done by focusing and relying on their experiences,

as a question arises that makes students imagine the skill and its events, then comes the stage of (observation), and allowing students to consult and think about the learned skill and absorb it about The way of the auditory and visual senses used and then provide the answer by a member of the group freely and without pressure. Then, the stage (interpretation of information) is followed by absorbing the skill and giving an explanation of the question submitted by the teacher to help transfer students to the correct perception and understanding of their spirituality [15], [16].

- Besides the application of 40-minute exercises, the teacher applies the exercises to students in an organized manner with the use of feedback after his refreshment or between his spirits, when an error occurs in his spirituality of the skill, the student can go to the display screen to watch his typical respite and then return to correct his spirituality with the ability of students to inquire from the teacher about any situation freely, and after completing the application of the exercises, students apply a recreational evaluation exercise, and the applied aspect in each unit included (3) exercises and an orthodontic exercise [17].
- C- The final unit section (10) minutes, in which the body returns to its normal state through relaxation and calming exercises and the application of a recreational game, then students are assigned to question as a homework about the skill for the next educational unit, then stand in a row to perform the greeting of departure ... 3.6.5 Application of the main search experience

The educational curriculum of the Woods model was applied on (Saturday) on 27/4/2024 and completed on (Saturday) on 8/6/2024.

#### Post-test:

After completing the application of the research experiment, the assistant team conducted the post-test of skills on the three groups on 11/6/2024 (Tuesday), taking into account that they were conducted under the same conditions as the pre-test, and after completion, the data was processed statistically [18], [19], [20].

#### Statistical means:

The data was processed using manual statistics, and each of the following laws (Abdul Majeed, 2000,152-387):

- “The law of (C. V) coefficient of variation.
- Arithmetic mean.
- Standard deviation.
- Law (C) for two related samples.
- Law of Analysis of Variance (P).
- Law of Minimum Moral Difference (L. S. D)”

### 3. Results

**Presentation of the results of the basic skills of the pre- and post-tests of the experimental group (superficial), see Table 4.**

**Table 4.** The results of the basic skills of the pre- and post-tests of the experimental group (surface)

test	Unit of measurement	Pre-test		Post-test		Difference of arithmetic means	Standard deviation difference	Calculated value (T)*	Significance
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation				
Thoracic	second	14.66	1.31	12.25	1.16	2.41	1.44	5.87	Moral

Handling									
Patting changes direction	second	15.5	1.5	12.16	1.34	3.33	1.34	8.12	Moral
Peaceful correction	degree	2.25	0.92	4.58	1.25	2.33	1.49	5.41	Moral

\* Tabular value (T) (2.20), significance level (0.05), degree of freedom (11).

**Presentation of the results of the basic skills of the pre- and post-tests of the experimental group (deep).**

The data is summarized in Table 5, highlighting the statistical significance of changes before and after the intervention."

**Table (5).** Results of Basic Skills for Pre-- and Post-Tests for the Experimental Group (Deep)

test	Unit of measurement	Pre-test		Post-test		Difference of arithmetic means	Standard deviation difference	Calculated value (T)*	Significance
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation				
Thoracic Handling	second	14.75	0.96	10	0.70	4.75	0.82	16.37	Moral
Patting changes direction	second	15.62	1.21	9.75	1.19	5.87	1.53	10.87	Moral
Peaceful correction	degree	2.37	1.21	6.62	1.11	4.25	1.39	8.67	Moral

\* Tabular value (T) (2.36), significance level (0.05), degree of freedom (7).

Presentation of the results of the basic skills of the pre- and post-tests of the experimental group (Collection). This is illustrated in Table 6, which provides comparative metrics from the pre- and post-test phases."

**Table 6.** The results of the basic skills of the pre- and post-tests of the experimental group (Collection)

test	Unit of measurement	Pre-test		Post-test		Difference of arithmetic means	Standard deviation difference	Calculated value (T)*	Significance
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation				
Thoracic Handling	second	14.8	1.4	11.4	0.8	3.4	1.56	6.93	Moral
Patting changes	second	15.4	1.62	11.1	0.94	4.3	1.95	7.04	Moral

direction									
Peaceful correction	degree	2.2	1.07	5.1	0.94	2.9	1.44	6.44	Moral

\* Tabular value (T) (2.26), significance level (0.05), degree of freedom (9).

3-4 Presentation of the results of the basic skills of the post-tests between research groups according to the levels of Biggs (superficial, deep, Collection). The outcomes, displayed in Table 7, confirm that group-level differences were statistically significant.

**Table 7.** The law of analysis of variance for the basic skills of the post-tests between research groups

test	Units of measurement	Contrast source	Sum of squares	Degrees of freedom	Average squares	Calculated value (q)*	Moral
Thoracic Handling	second	Between groups	24.31	2	12.15	12.39	Moral
		Inside groups	26.65	27	0.98		
Patting changes direction	second	Between groups	28.1	2	14.05	9.06	Moral
		Inside groups	42.06	27	1.55		
Peaceful correction	degree	Between groups	20.60	2	10.3	7.41	Moral
		Inside groups	37.7	27	1.39		

\* Tabular value (q) (3.35) at the level of significance (0.05), degree of freedom (2.27)

Through Table (7), it was clear that there was a significant difference between the three research groups according to the levels of Biggs (superficial - deep - Collection) in the basic skills tests (thoracic handling - Tabtaba change of direction - peaceful correction), as the value of (P) calculated for all skills is greater than the value of (P) tabular at the level of significance (0.05), and the degree of freedom (2.27) and in order for the researchers to identify the significance of the results in favor of any of the three groups, the test of the least significant difference (L. S. D) was used...

**Table 8.** The test of the least significant difference (L.S. D) between the three research groups in basic skills.

Skills	Teams of the media	Difference Value	Value of L.S.D.	Moral	
Thoracic Handling	Surface arithmetic mean – deep arithmetic mean	10-12.25	2.25	1.10	Moral
	Surface arithmetic mean – collection arithmetic mean	11.4-12.25	0.85		
	Collection arithmetic mean – deep arithmetic mean	10-11.4	1.4		
Patting changes direction	Surface arithmetic mean – deep arithmetic mean	9.75-12.16	2.41	1.39	Moral
	Surface arithmetic mean – collection arithmetic mean	11.1-12.16	1.06		
	Collection arithmetic mean – deep arithmetic mean	9.75-11.1	1.35		
Peaceful correction	Surface arithmetic mean – deep arithmetic mean	6.62-4.58	2.04	1.31	Moral
	Surface arithmetic mean – collection arithmetic mean	5.1-4.58	0.52		
	Collection arithmetic mean – deep arithmetic mean	6.62-5.1	1.52		

#### 4. Discussion

1. **Discussion of the first hypothesis:** There are significant differences between the results of the pre- and post-tests of the three groups in improving the learning of some basic basketball skills for students (chest handling - tabtaba - peaceful correction). By presenting the results of the basic skills test before and after the experimental groups in Table No. 4,5,6 (superficial, deep, and Collection), it was found that the differences were statistically significant in favor of the post-tests, and this confirms the positive effective impact of the educational program in the Woods model according to Biggs' learning levels, as this model is one of the models put forward by constructivism that target the cognitive construction of the individual, which is based on many theories that have distinguished the importance of targeting the learner himself in discovering knowledge, as well as the process of social interaction in different learning situations, The Woods model has contributed through the application of its stages of prediction, observation, and interpretation to make the learner an active participant in achieving meaningful learning, and acquiring new experiences of basic basketball skills, as thinking about asking about the skill and describing it cooperatively is the first step to learning before practical application of it.

The potential of applying the Woods model with what has been planned in the educational unit of the use of means of presenting artistic performance has achieved integration in the process of skill learning, providing feedback before performance and during performance is sufficient to consolidate the correct performance of the skill through attention, and directing the perceptual processes of the information available in the educational environment contributed to the process of identifying the desired purpose

Mohamed Sobhi Hassanein asserts that the fact of success for any learner is ascertained when practicing exercises, and activities that are associated with knowledge, and that they go together in important areas such as the field of motor, psychological, and emotional, so knowledge of mathematical information is one of the necessities [21], [22].

2. **Discussion of the second hypothesis:** There are significant differences between the results of the post-tests between the three groups in improving the learning of some basic basketball skills for students (chest handling - tabtaba - peaceful correction).

Through the presentation of the results of the basic skills tests between the three groups show that there are differences between those groups and this is shown in Table 7, and for the purpose of determining the best group directed researchers to test the least significant difference (l. s. d) has been shown superiority of the specifications of the experimental group deep on the experimental groups surface and Collection in learning the skills of handling chest, and Tabtaba change of direction, and peaceful correction, and the researchers believe that the mental specifications of members of the deep level agreed with the model Woods structural in terms of internal factors They have understanding, perception and cognitive construction and enable them to choose what suits them and manage their affairs, so the superiority was for the deep, although all groups applied the same educational program.

Khaled Hassan Bakr confirms that students with a deep level are more motivated internally in the ability to link ideas and their search for important topics, they prefer knowledge and principles when learning, on the other hand, we find those with a superficial level controlled by external motivation, the superficial individual may remember information without thinking, while members of the Collection level are those who do not prove at the level and continue to move between deep and superficial.

The results of the study are consistent with the study of Amira Ibrahim in that the educational program with the constructivist learning strategy according to the Biggs method has contributed to the development of cognitive Collection and basic

volleyball skills , and the results of the study are consistent with the study of Jian Ahmed Mohammed, which found the positive impact of the Woods model on the development of self-efficacy, mental motivation and learning basic basketball skills for female students.

## 5. Conclusion

- 1- The educational program using the Woods model according to the levels of Biggs (superficial - deep - Collection) was effective in improving the learning of basic basketball skills (chest handling, directional patting, peaceful aiming for students)
- 2- The students of the experimental group outperformed the specifications of the deep over the two experimental groups superficial and Collection in improving the learning of basic basketball skills (chest handling, palette by changing direction, peaceful correction).
- 3- The application of the Woods model in its three stages, the exercises used, and the means of presentation contributed to exciting students towards learning effectively.

### Recommendations:

- 1- Basketball teachers in the faculties of physical education and sports sciences benefited from the results of this study.
- 2- Taking into account the individual differences between students, choosing the appropriate educational method, and standing on their mental levels.
- 3- Focus on educational models that provide collective participation for students.
- 4- Preparing a special brochure by the faculty of physical education to introduce the new teachers to modern learning models.
- 5- Conducting similar studies on other samples and other mathematical skills, and to include both sexes and other stages.

## REFERENCES

- [1] S. S. Abdel Fattah, *Trends in Psychology Education in the Light of Metacognitive and Constructivist Theory*, Cairo: Egyptian Authority on Books, 2013.
- [2] S. M. Abdul Amir, "The effect of an educational curriculum according to the Woods model on mental capacity and learning some basic skills for learners with a wrong understanding of volleyball," Ph.D. dissertation, Univ. of Baghdad, College of Physical Education and Sports Sciences for Girls, 2019.
- [3] M. Abdul Majeed, *Descriptive and Inferential Statistics in the Fields and Research of Physical Education and Sports*, Amman: Dar Al-Fikr Al-Arabi, 2000.
- [4] A. S. Al-Damad, *Physiology of Mental Processes in Sports*, 1st ed., Amman: Dar Al-Fikr, 2000.
- [5] L. H. Al-Diwan, *Transformation from Teaching to Learning in Physical Education*, Iraq: Al-Basaer House and Library, 2019.
- [6] A. S. Jawad, *Tests, Measurement and Statistics in the Mathematical Field*, Univ. of Al-Qadisiyah, 2004.
- [7] O. Ali and H. Hamid, "Building of Psychological Directions Parameter for Anbar Educational Directorate Teachers for non-specialty Towards Practicing Classroom and Extracurricular Activities," *Anbar Univ. J. Phys. Sci. Sports*, vol. 12, no. 23, pp. 23–46, 2021, doi: 10.37655/uaspesj.2021.175083.
- [8] O. Ali, A. Mushref, and B. Ali, "The Role of Supplements in Improving Muscular Strength and Endurance in Professional Soccer Players: A Systematic Review," *Am. J. Social Humanit. Res.*, vol. 5, no. 12, pp. 485–497, 2024, doi: 10.31150/ajshr.v5i12.3116.
- [9] K. H. Bakr, *Reflective Learning, Concept - Applications*, Alexandria: New University House, 2012.
- [10] N. Q. M. Hamza, "The effect of proposed exercises for visual vision training using manufactured tools in developing some motor abilities, kinesthetic sense, and offensive skills in basketball," Ph.D. dissertation, College of Physical Education, Anbar Univ., 2013.
- [11] C. Jones, "Biggis 3p Model of Learning: The Role of Personal Characteristic and Environmental Influences on Approaches to learning," Ph.D. dissertation, Griffith Univ., 2002.

- 
- [12] H. H. Khalaf et al., "The impact of the Dines model as an educational mediator on cognitive achievement and learning overhead passing skill in volleyball," *Proximus J. Sports Sci. Phys. Educ.*, vol. 1, no. 12, pp. 70–71, 2024.
- [13] Y. A. Khalaf, M. A. AbdulJabbar, and O. A. Ali, "The effect of sports job burnout on the performance of workers in student activities departments in Iraqi universities," *Retos*, no. 66, pp. 86–95, 2025, doi: 10.47197/retos.v66.113271.
- [14] M. Mahmoud and M. Sobhi, *Measurement in Basketball*, 1st ed., Cairo: Dar Al-Fikr Al-Arabi, 1984.
- [15] M. S. Hassanein, *Scientific Foundations of Volleyball and Measurement Methods - Physical, Skill, Cognitive, Psychological, Analytical*, 1st ed., Cairo: Book Center Publishing, 1997.
- [16] J. A. Mohammed, "The Impact of the Woods Model on Mental Motivation, Self-Efficacy and Learning Some Offensive Basketball Skills for Students," Master's thesis, Univ. of Baghdad, College of Physical Education and Sports Sciences for Girls, 2022.
- [17] A. F. Omar et al., "The impact of cognitive training on field intelligence growth and some composite skills of advanced football players," *Retos*, no. 66, pp. 46–58, 2025, doi: 10.47197/retos.v66.113234.
- [18] S. Saeed, Q. Sabti, and O. Ali, "Competitive Marketing Vigilance and its Relationship to Social Persuasion Among a Sample of Sports Equipment Sales Representatives in Iraq," *Int. J. Educ. Eval. Policy Anal.*, vol. 1, no. 4, 2024, doi: 10.62951/ijeeepa.v1i4.48.
- [19] A. I. Saheel, "The effectiveness of the constructivist learning strategy according to the Peggs method in acquiring cognitive collection and learning a number of basic skills in volleyball," Master's thesis, Univ. of Mosul, College of Basic Education, Dept. of Physical Education and Sports Sciences, 2021.
- [20] L. M. Shinddikh, "The effectiveness of an educational program based on the Woods model in learning some basic football skills for students of the specialized school," Master's thesis, Jinan Univ., Faculty of Education, Dept. of Curriculum and Teaching Methods, Lebanon, 2023.
- [21] R. Woods, "A close-up at How Children learn Science," *Educational Leadership*, vol. 51, no. 5, 1994.
- [22] Z. S. Zaid and A. Issa, *Social Constructivist Theory and its Applications in Teaching*, Amman: Debono Center for Teaching Thinking, 2016.