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The Effect of Fair Inquiry on Holistic Thinking and Learning the Skill of Underhand Serving in Volleyball for Female Students

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Abstract

Fair inquiry is one of the strategies that stimulate and develop learners' thinking abilities by placing them in problem situations; to search for solutions using a scientific approach. The significance of research relying on fair inquiry has emerged in enhancing holistic thinking and learning the underhand serving skill in volleyball. The problem addressed in the research is the students' weakness in learning the underhand serving skill in volleyball using their hands from below. The research seeks to develop educational units using fair inquiry in practical volleyball lessons and to determine the effect of the fair inquiry on enhancing holistic thinking and learning the underhand serving skill for female students. The researchers assume that there are statistically significant differences in the pre-test and post-test results of holistic thinking and learning the underhand serving skill in volleyball, specifically between the experimental group and those in the control group. They also assume that there are statistically significant differences between the results of tests measuring comprehensive thinking and learning the performance of the underhand serve in volleyball post-tests between the experimental and control research groups. The experimental approach was adopted, involving the design of both the experimental and control groups from a sample of third-stage students from the Department of Physical Education and Sports Sciences at the College of Basic Education/University of Diyala for the academic year (2021/2022) who are regularly attending volleyball classes. A random sample of (30) students was selected, representing (85.714%) of the population, and they were divided equally into two groups based on the requirements of the experimental design. After determining the performance skill tests and implementing the strategy with the experimental group for a continuous period of (8) weeks, the results were statistically analyzed using the SPSS software. The conclusions and recommendations are that the elements of the fair inquiry can apply in practical lessons for learning volleyball skills in the Department of Physical Education and Sports Science at the College of Basic Education. Implementing fair inquiry into volleyball lessons can enhance holistic thinking and serving from below ability, outperforming the improvements in students who learn without it. and this achieves one of the sustainable development goals of the United Nations in Iraq which is (Quality Education). Furthermore, it is essential to pay attention to the development of the capabilities of volleyball teachers in the Department of Physical Education and Sports Sciences at the College of Basic Education and to improve their knowledge of fair inquiry to apply it in practical lessons according to its stages and components, and to properly employ it in these lessons

Keywords | **Fair inquiry, holistic thinking**

Introduction:

"Thinking plays a positive role in the excellence and progress of students within and outside the educational institution because their performance in educational tasks, school exams, and life

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situations during and after their studies is a result of their thinking processes, which determine their success or failure." (9) it is also mentioned by (Dania and Nihad) that Attention to the cognitive structures of female students while learning the skill of overwhelming multiplication, as it helps to develop sports performance, and the need to conduct similar studies on different age groups and other different activities (20). Furthermore, holistic thinking is considered "one of the most important types of thinking as it imposes its significance as an essential means to test the ideas presented for any signs of weakness or deficiencies. It also requires letting the mind explore various solutions and wander through different possibilities. It encompasses a multitude of alternatives and choices, each of which could potentially lead to a successful resolution of the problem by carefully selecting the most suitable and accurate solutions (15). Furthermore, "holistic thinking involves perceiving a situation or problem from various cognitive perspectives, such as critical and creative thinking. Individuals with comprehensive thinking tend to generate ideas quickly, unlike those with non-comprehensive thinking. Those who possess holistic thinking have the ability to adapt to different cultural climates. This type of thinking, which stimulates various brain capabilities and diverse thinking skills, develops in students. And this is what both researchers (Sawsan and Najlaa) agreed upon in their study (25). Holistic thinking is an ability that individuals possess, helping them shift from the traditional thinking model to a flexible, comprehensive way of solving problems they encounter. This holistic and balanced capacity enhances self-awareness and social consciousness, enabling individuals to recognize their interconnectedness within a complex world of issues" (19). "To develop thinking in students, it is necessary to help them acquire thinking skills that point to awareness and control of the abilities, strategies, resources, and tools we need to perform tasks more effectively. "Therefore, possessing these skills is an essential educational goal and a necessary pedagogical requirement that educators seek to develop in students during this era of knowledge and technological explosion. This is what the researchers (Afaf and others) confirmed in their study that (The time that the teacher takes to explain the material and the time that the student spends on learning the skill of shooting from the base are related to learning the skill, but not to a high degree) (21), particularly in the fields of science, technology, informatics, and communications" (4). "Volleyball is a game that requires high speed and precision during execution due to the multitude of its variables simultaneously, distinguishing it from other games." (2) Furthermore, "active learning methods allow students to contribute significantly to the activities, taking them beyond the role of the passive receiver" (5). Thus, "the fair inquiry aims to stimulate and develop students' thinking abilities by presenting them with challenging situations, prompting them to seek solutions using a scientific methodology" (7). "The fair inquiry relies on gathering information from multiple sources, where learners participate in collecting it in the form of a group project" (9). Furthermore, "during the fair inquiry, students are divided into small groups that rely on research, investigation, group discussions, and cooperative planning, with each group consists of (3-6) members. The topic to be taught is divided among the groups, and each group further subdivides their topic into individual tasks and responsibilities for the group members. Subsequently, the group prepares and presents a report for discussion, sharing the findings with the entire class. The team is then evaluated based on the work they have undertaken and presented." (8)

Research problem

Due to the researchers' expertise in teaching volleyball skills at Iraqi universities and their continuous monitoring of the volleyball lesson,

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they have observed that the skill of underhand serve reception using hands from below poses significant challenges for the students despite the teacher's efforts to employ effective teaching methods to facilitate comprehensive learning. The students cannot master it, regardless of the teacher's efforts in the learning process. Moreover, it appears that most students tend to focus more on the practical aspect rather than the theoretical aspect of the skill. Consequently, this may lead to a lack of knowledge and information related to the learned skill, which, in turn, can result in a decline in their performance in the underhand serving skill. Additionally, there seems to be limited use of strategies that stimulate the learners' cognitive motivation and enthusiasm for learning, encouraging them to think critically and actively participate in the lesson rather than merely being passive recipients. It is essential to consider the specific characteristics of the underhand serving skill, along with its distinctive technical steps

Research importance

The importance of this research lies in proposing and experimenting with a new strategy and utilizing the students' holistic thinking possessed by the students in learning the skill of underhand serving. It may contribute to assisting the students in facilitating the learning process. Given that this strategy involves sequential application steps, it breaks students away from the traditional framework, which may be accompanied by boredom and a lack of excitement, leading to a weakness in the learning process. Therefore, **the research aims to** prepare educational units based on the fair inquiry in volleyball practical lessons and investigate the impact of this strategy on enhancing holistic thinking and learning the underhand serving skill for female students. Based on this, **the researchers assume that** there are statistically significant differences in the results of tests measuring holistic thinking and learning the underhand serving skill in volleyball between the experimental and control groups, both in the pre-test and post-test measurements. They also hypothesize that there are statistically significant differences in the post-test results of holistic thinking and learning the underhand serving skill in volleyball between the experimental and control groups.

Research Procedures:

The researchers adopted the experimental method, which is defined as "the objective observation of a specific phenomenon that occurs in a controlled situation and involves one or more diverse variables, while other variables (factors) remain constant" (10).

Furthermore, to complement this approach, the researchers chose an experimental design with two groups: an experimental group and a control group, which are strictly controlled, with pre- and post-testing. The study population consisted of third-stage students from the Department of Physical Education and Sports Sciences at the College of Basic Education/University of Diyala for the academic year (2021/2022) regularly attending classes in volleyball, with a total of (35) students distributed between two sections (A) and (B). A main sample of (30) students was randomly selected, representing 85.714% of the total population. They were divided into two equal groups according to the requirements of the experimental design. Moreover, five students were randomly selected within and outside the primary sample to form the survey sample representing 14.286% of the total population. The researchers adopted the holistic thinking scale for volleyball by Hind Obaid (2022), Appendix (1), with its structure indicated in Table (1):

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Table (1) illustrates the structure of the holistic thinking scale in volleyball.

The agreed-upon separate dimensions		he number of ite	positive alternative respons to the items	Correction ke	otal Score Ran	sumed avera
1	Creative thinking	6	Fully applicable	5	30 – 6	18
2	Reflective thinking	6	Highly applicable	4	30 – 6	18
3	Generating ideas	6	Moderately applicable	3	30 – 6	18
4	Adaptability	6	Slightly applicable	2	30 – 6	18
5	Flexibility	6	Not applicable at all	1	30 – 6	18
6	Enhancing awareness	6			30 – 6	18
Total		36	5	5	180-36	108

The researchers also adopted a technical performance test to assess the accuracy of the underhand serving skill in volleyball (9). The registration was done by evaluating the performance of the examinee by the three experts, as described in Appendix (3), and the grading was distributed as follows:

- Preparatory section: Score (3).
- Main section: Score (5).
- Concluding section: Score (2).

The scale and test were piloted on a survey sample of (5) female students, then applied to an application sample of 30 students in the Physical Education and Sports Science department in the Basic Education College / University of Diyala for the period from Sunday, 24/4/2022, until Thursday 29/4/2022. The researchers also prepared the curriculum for the practical lessons on learning the skill of underhand serving in volleyball according to the theoretical framework of this strategy and its application in the practical lessons for third-year students in the Department of Physical Education and Sports Sciences. The educational exercises for these units were prepared after reviewing numerous specialized scientific sources on volleyball, which address the finer details of correct performance and activate the application role for the students in the lesson, by utilizing the cognitive aspect of fair inquiry about their performance of this skill to suit the motor programs. The application of the fair inquiry strategy was conducted in six stages, as follows:

The first stage: Orienting towards the educational task of skillful performance in volleyball.

The second stage: Researching and familiarizing with the details of skill learning for performing the underhand serving skill in volleyball.

The third stage: The stage of discussing the information and opinions gathered about the performance of the underhand serving skill in volleyball.

The fourth stage: Debating between the two groups about the performance of the underhand serving skill in volleyball.

The fifth stage: Reaching an agreement and reinforcing the consensus about the performance of the underhand serving skill in volleyball.

The sixth stage: Applying the performance of the two skills.

Where the unit time is (90) minutes, the duration of the educational unit is distributed as follows:

1. The preparatory section: The total time for this section is (15) minutes for one educational unit and consists of:

- Warm-up: It includes exercises aimed at improving the body's basic physical abilities and lasts for (5) minutes per educational unit.
- Physical Exercises: These include exercises related to the educational units' topics, focusing on specific muscle groups, in addition to exercises involving volleyball skills, and it takes (10) minutes per educational unit.

2. The main section: Its duration is (65) minutes per educational unit and consists of the following two parts:

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- The educational and application part: This includes explaining, presenting, and clarifying the skill in detail by applying the steps of the fair inquiry strategy as follows:
- Problem identification: The teacher identifies the problem, which is the skill performance, and formulates a question, for example (What are the similarities between the performance of the preparation skill and the performance of the underhand serving skill in volleyball?). The class of students in the experimental group is divided into two groups, per group answering the question in a certain way and a third group acting as their referee.
- The Research Stage: Each group deliberately researches the performance method and tools that will be used in this performance.
- The Competition Stage: The skill is performed by the students of each group, and a discussion is held to determine the best progressive exercise for performing the specific skill in the lesson.
- The Debate Stage: Each group performs the progressive exercise that helps in performing the skill, and the teacher listens to the opinion of the referee group and the point of view of each team.
- Agreement on the Opinion: After the discussion, the referee group presents the exercise that helps in performing the skill and writes it on the paper.
- The Application Stage: The performance is applied by both groups and then switched.

3. The concluding section: It takes (10) minutes per educational unit and includes the recreational aspect, which consists of relaxation exercises or a small game to energize the female students, as well as evaluating the students' performance collectively.

The application of the fair inquiry educational curriculum lasted for (8) weeks in the physical education class for volleyball, targeting the students of the experimental group. The control group, on the other hand, applied the method used to learn the underhand serving skill in volleyball for the same duration in the physical education and sports sciences section. The researcher supervised the control group without interfering in their learning process. After completing the experiment, the researchers verified the results using the Statistical Package for the Social Sciences (SPSS) version (V26) to analyze the results. The following values were automatically computed: percentage, the arithmetic mean, standard deviation, Levene's test for homogeneity of variances, independent samples t-test, and paired samples t-test.

Results:

Table (2)
shows the results of the pre-tests between the research groups.

Measurement and Test	The group	Arithmetic mean	Standard deviation	Levene's value	(Sig)	(t)	(Sig)	The significance
Holistic Thinking	Experimental	98.73	10.505	1.788	0.192	0.639	0.528	Not-Significant
	Control	101.4	12.27					
Performing the underhand serve skill	Experimental	2.47	1.407	0.271	0.607	0.247	0.807	Not-Significant
	Control	2.6	1.549					

It is not significant when (Sig) < (0.05) at the significance level (0.05) and degrees of freedom n-2 = (28).

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Table (3)
shows the results of the pretest and posttest for the two experimental groups.

The scale, test, and unit of measurement.	The group and its count	Comparison	Arithmetic mean	Standard deviation	The mean of the difference	Deviation of differences	(t)	(Sig)	The significance of the difference
Holistic Thinking (score)	Experimental (15)	Pre-test	98.73	10.505	38.2	10.995	13.456	0.000	Significant
		Post-test	136.93	1.28					
	Control **(15)**	Pre-test	101.4	12.27	22.733	13.204	6.668	0.000	Significant
		Post-test	124.13	3.852					
Performing the nderhand serve skil (score)	Experimental **(15)**	Pre-test	2.47	1.407	5.133	1.552	12.808	0.000	Significant
		Post-test	7.6	0.507					
	Control **(15)**	Pre-test	2.6	1.549	3.067	1.624	7.313	0.000	Significant
		Post-test	5.67	1.291					

The statistical difference is significant at a significance level of (0.05) and degrees of freedom (n)-(1) if (Sig) ≥ (0.05).

Table (4)
shows the post-test results between the experimental and control groups.

The scale, test, and unit of measurement.	The group	Count	rithmetic mea	andard deviati	(t)	(Sig)	The significance of the difference
Holistic Thinking (score)	Experimental	15	136.93	1.28	12.213	0.000	Significant
	Control	15	124.13	3.852			
Performing the underhand serve skill (score)	Experimental	15	7.6	0.507	5.398	0.000	Significant
	Control	15	5.67	1.291			

The statistical difference is significant at a significance level of (0.05) and degrees of freedom (n1 + n2 - 2) = (28) if (Sig) ≥ (0.05).

Discussion:

From reviewing the pre-test and post-test results in Table (2), it is evident that all third-year students in the Department of Physical Education and Sports Sciences, both in the experimental and control groups showed improvement in their level of holistic thinking for learning the skill of underhand serving in volleyball in the post-tests compared to the pre-tests. Furthermore, referring to the results in Table (3), it is clear that the students in the experimental group demonstrated superior performance compared to those in the control group in terms of improving their level of holistic thinking for learning the underhand serving skill in volleyball. The researchers attribute the emergence of these results to the impact of educational exercises that included the elements of fair inquiry in their practical applications, as well as the effective presentation and explanation of the educational model that the students needed to provide the answers they were seeking. Moreover, the appropriate number of times the educational curriculum exercises were applied using fair inquiry, along with the proper distribution of students within the experimental group, helped the exchange of experiences among them, which enabled the process of building the motor program for the performance of each skill, as well as having a panel of referees for them. The researchers also attribute the emergence of these results to the fact that the educational situations included in the fair inquiry helped the students form a cognitive structure that supports the motor program through the nature of the role assigned to each learner. Each learner is required to utilize the information and experiences to reconstruct the motor program for the underhand serving skill in the required correct form, ensuring it aligns with the presented model. This is consistent with the findings of (Safa and Najlaa)

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(24). Additionally, the students had sufficient freedom in their performance within the boundaries of this model, as improvement in motor performance relies on refining the motor program through practice. "Volleyball is a team sport that requires speed, attention, and focus during play. Therefore, in the process of learning its skills, we need educational units that include mechanisms that enhance cognitive processes and good thinking to achieve the best levels of learning. Especially since volleyball skills require high concentration, particularly the underhand serving skill, which is one of the most crucial skills in the game due to its offensive nature. Hence, we must search for the latest methods, techniques, and strategies to learn and master them" (12). As agreed, in the study conducted by the researchers (Saya Sami and Luma Sameer) (22), (teeba and Nihad) see that (Organizational performance did not reach the desired level, despite what the results showed of the importance of creativity in improving organizational performance, Whenever the organization brings about changes and developments from within, this is better reflected in the performance of individuals and the organization as a whole) (17). "The fair inquiry suits a society composed of individuals with different perspectives and interests, in a society where there is a conflict between social values about which there is debate. This debate needs a method that enables these individuals to understand each other, clarify differences, intelligently analyze issues, and take a rational stance. This stance must be characterized by fairness" (13). "Learning is not measured by the quantity of information you memorize but rather by the amount of information symbolized, stored, and easily retrieved as quickly and efficiently as possible. The quality of learning refers to the ability to retrieve the required information and apply it effectively to solve encountered problems. It can only be achieved by appropriate educational strategies that stimulate thinking" (18). Furthermore, "new information should be based on previously acquired knowledge. For instance, when studying a specific topic in a section organized according to constructivist principles, students can be encouraged to think and discuss their experiences and opinions on the studied subject" (14). The researchers attribute the emergence of these results to the improvement in the level of strategic thinking, which, in turn, helps the learners to recognize the intricacies of skilled performance and activate the comparison with the desired model. Consequently, the motor program aligned with this model improves. The specific points covered in the educational exercises and educational tools facilitated the brain's reception of this information, which the learners employed in their motor performance for both skills. "Understanding the performance requirements leads to the learners easily grasping the elements of motor skills" (1). It is also a fact that "No one can deny the role of the brain in regulating attention, perception, memory, learning, and other cognitive processes" (3). Furthermore, "principles, generalizations, and sports skills heavily rely on concepts in their formation and comprehension or acquisition" (6). The researchers also attribute the emergence of these results, showing improvement and superiority of the experimental group's students, to the role of the fair inquiry in creating an active learning environment that focuses on the learner's role. This strategy encourages students to engage in research and discussions with peers, promotes legitimate competition in skill acquisition, and highlights the researchers' excellent selection of competitive educational exercises that suit the application of the strategy also played a major role. In addition to educational methods to enhance competition, which increases the chance of interacting with the educational environment, it then positively reflects on improving holistic thinking and learning the researched skill, taking into account individual differences in skill learning with volleyball. "One of the features of an active

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learning environment makes the learner able of initiating and interacting with peers and expressing what they have with a considerable degree of freedom, in addition to its role in shifting the focus of the educational process from the teacher to the learner. The characteristics of an active learning environment can identify as being rich with diverse information sources, including opportunities for asking questions and clarifying, and a spirit of cooperation and positive participation in work prevails within it" (11). "The success of a learner is measured by their ability to demonstrate and retrieve information as it is, which hinders the development of their cognitive skills. We need to learn how to choose appropriate thinking methods, as they are the key to our success" (16). This is what both researchers (Sahab and Nijlaa) (23) agreed upon. As for the improvement in the control group students, the researcher attributes it to the students' continuous evaluation of their skill learning in volleyball during the same period of attending the educational units. Additionally, the positive role played by their teachers in the lesson enhances their performance to the best of their abilities and the effective use of supportive tools and multimedia. However, the level of improvement for the students in this group did not exceed what the students in the experimental group, who were taught with fair inquiry, achieved. "One of the natural phenomena of the learning process is that there must be development in learning as long as the teacher follows the correct steps for learning and teaching. For the beginning of learning to be correct, it is necessary to clarify the explanation, the presentation, practice the correct performance and focus on it until the performance is consolidated and stable". (8)

Conclusions:

1. The principles of fair inquiry strategy can be applied in practical lessons for learning motor performance in volleyball in the Department of Physical Education and Sports Science at the College of Basic Education.
2. The application of the fair inquiry strategy in practical volleyball lessons in the Department of Physical Education and Sports Science at the College of Basic Education helps improve holistic thinking and performance of the underhand serve skill, outperforming improvement among students who learn without it.

Recommendations

It is essential to pay attention to developing the abilities of volleyball teachers in the Department of Physical Education and Sports Science at the College of Basic Education and improving their knowledge of the fair inquiry to apply it in practical lessons in line with its stages, vocabulary, and good utilization in these lessons.

Author's declaration:

Conflicts of interest: None
We confirm that all tables and figures in this article are ours and written by the researchers themselves.

Ethical-Clearance: this manuscript approved by local ethical committee of physical education and sport sciences college for women on (June /2023)

Author's contributions:

All contributions of this study were done by the researchers (H.U. and H.A.) who get the main idea and work on writing and concluding also with number of experts, Aid Sabah Hussein in Statistics, Suaad Sebti in revision, Inaam Ghalib in translating, Huda Shihab in proofreading

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Appendix (1)
illustrates the scale of holistic thinking in volleyball.

	Firstly: Creative Thinking Aspect.	Fully applicable	Highly applicable	Moderately applicable	Slightly applicable	Not applicable at all
	I am monitoring the implementation of my ideas and assessing their success in improving my volleyball skills.					
	I am sure that I can determine the most effective approach to mastering the new skill.					
	I can identify the best method for executing the new skill.					
	I feel that I have a better idea than the traditional one to enhance the performance of the new skill.					
	I can find creative solutions for challenges in volleyball class with proficiency.					
	I assess the results of my ideas regarding volleyball skills after applying them.					
	Secondly: The reflective thinking aspect					
	I can delve into the details of correct volleyball skills performance.					
	I successfully link sub-ideas to the overall idea of volleyball skills performance.					
	I scrutinize the interconnection of information about skillful performance in volleyball.					
	I can identify the relationship between body movements during my volleyball skills performance.					
	I can estimate the timing of body movement speeds when performing volleyball skills.					

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	I can estimate the time required to master my volleyball skills performance.					
	Thirdly: The Aspect of Idea Generation					
	I find within myself what qualifies me to find solutions in various educational situations in volleyball.					
	I see that my ideas for improving my volleyball skills performance have several sub-ideas that support them.					
	I trust my ability to think comprehensively about what volleyball skills performance entails.					
	I possess the capability to choose the proper steps for volleyball skills performance successfully.					
	I choose the appropriate solutions myself when performing volleyball skills.					
	I strive to avoid feeling like a failure after considering the details of skillful performance in volleyball.					
	Fourthly: Adaptation Aspect					
	I deal with volleyball skills performance with consistent principles that must be followed to accomplish it.					
	I control my mental dispersion by occupying my thoughts with the pathways of skillful performance in volleyball.					
	I aspire to achieve continuous success in volleyball skills performance.					
	I feel that what I aspire to achieve will be reached through improving my volleyball skills performance.					
	I link volleyball skills together when performing them.					
	I do everything that is exceptional because it enhances my volleyball skills performance.					
	Fifthly: Flexibility Aspect					
	I accept different ideas to correct my thoughts about improving my skillful performance in volleyball.					
	I encourage collaboration among groups of learners in volleyball skills performance.					
	I innovate movement formations that help me in my volleyball skills performance.					
	I demonstrate flexibility in solving my different problems in the volleyball lesson.					
	I possess rational ideas about the nature of my skillful performance in volleyball.					
	I care about evaluating what is related to my skillful performance in volleyball.					
	Sixthly: Awareness Enhancement Aspect					
	I prefer tasks that I can fully implement on my					

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	own					
	I express awareness of what I am thinking about regarding my skillful performance in volleyball.					
	I am aware of the type of encouragement provided by my teacher for my volleyball performance.					
	I develop myself in activities that require high-level tasks for my skillful performance in volleyball.					
	I define myself with a specific movement pattern during my volleyball skill performance.					
	I diagnose my mistakes to overcome them in the upcoming stages of my skillful performance in volleyball.					

Appendix (2)

Test of Serving Performance to a court divided into (4) zones:

- **Purpose of the Test:** To measure the accuracy of the serving skill.
- **Equipment:** A court divided into areas, each area marked with a number representing the value of the points assigned to that zone, three volleyball balls (see Figure 1).
- **Performance Specifications:** The performer stands in the designated zone for serving and performs a legal serving method to cross the net into the court.
- **Conditions:** The examinee performs three serving attempts for warm-up before starting the actual test and then performs (10) serving attempts. Foot errors and net errors count as a score of zero.
- **Scoring:** The total value of the points where the ball landed is calculated. If the ball touches any boundary line, the higher number of the zone it follows is assigned to it. The maximum score is 40 points, and the measurement unit is "scores."

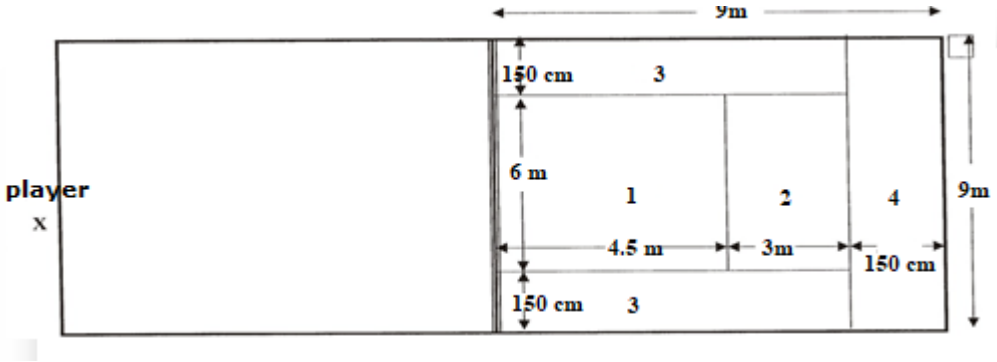

Figure (1) illustrates a diagram for testing the skill of serving.

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Appendix (3)
The names of the experts and specialists whom the researcher consulted.

Seq.	Expert name	Academic Title	Specialization	College
1	Amal Sabeeh Salman	Prof. Dr.	Volleyball Teaching Methods	Diyala University
11	A'id Sabah Hussein	Prof. Dr.	Physiology of Sports Training - Volleyball	Student Activities Department - Baghdad
12	Buthaynah Abdul Khaleq	Prof. Dr.	Volleyball Teaching Met	Diyala University

أثر إستراتيجية الأستقصاء العادل في التفكير الشمولي وتعلم أداء مهارة الارسال من الاسفل بالكرة الطائرة للطالبات

هند عبيد عبد السلام [1]، هدى عبد السميع [2]
2&1 جامعة بغداد/ كلية التربية البدنية و علوم الرياضة للبنات

مستخلص البحث

الاستقصاء العادل من الاستراتيجيات التي تعمل على استثارة قدرات التفكير لدى المتعلمين وتطويرها بوضعهم امام مواقف مشكل ليبحثوا عن حلول له باتباع المنهجية العلمية , برزت اهمية البحث بالاعتماد على استراتيجية الاستقصاء العادل في التفكير الشمولي وتعلم اداء مهارة الارسال من الاسفل بالكرة الطائرة , واما مشكلة البحث الضعف الحاصل لدى طالبات عند تعلم مهارة الارسال باليدين من الاسفل ,يهدف البحث إلى اعداد وحدات تعليمية باستراتيجية الاستقصاء العادل في الدروس العملية بالكرة الطائرة، والتعرف على اثر استراتيجية الاستقصاء العادل في تحسين التفكير الشمولي وتعلم أداء مهارة الارسال من الاسفل بالكرة الطائرة للطالبات، ولتفترض بذلك الباحثتان بأنه توجد فروق ذات دلالة إحصائية بين نتائج اختبارات قياس التفكير الشمولي وتعلم أداء مهارة الارسال من الاسفل بالكرة الطائرة القبلية والبعدية لمجموعتي البحث التجريبية والضابطة، وتوجد فروق ذات دلالة إحصائية بين نتائج اختبارات قياس التفكير الشمولي وتعلم أداء مهارة الارسال من الاسفل بالكرة الطائرة البعدية بين مجموعتي البحث التجريبية والضابطة، وأعتمد المنهج التجريبي بتصميم المجموعتين التجريبية والضابطة على عينة من طالبات المرحلة الثالثة من قسم التربية البدنية وعلوم الرياضة في كلية التربية الأساسية/جامعة ديالى للعام الدراسي (2022/2021) المستمرات بالدوام المنتظم الحضوري لدروس الكرة الطائرة أُختيرت عينة البحث منهنّ عشوائياً ليبلغ عددها (30) طالبة اختيرت بنسبة (85.714 %) وقسمنّ إلى مجموعتين متساويتين العدد حسب متطلبات التصميم التجريبي، وبعد تحديد اختباري الاداء المهاري وتطبيق الاستراتيجية على طالبات المجموعة التجريبية لمدة (8) اسابيع متتالية تمت معالجة النتائج إحصائياً بنظام SPSSلتكون الاستنتاجات والتوصيات بأنه يُمكن تطبيق مفردات إستراتيجية الأستقصاء العادل في الدروس العملية لتعلم الأداء المهاري بالكرة الطائرة في قسم التربية البدنية وعلوم الرياضة في كلية التربية الأساسية، وإن تطبيق إستراتيجية الأستقصاء العادل في الدروس العملية بالكرة الطائرة في قسم التربية البدنية وعلوم الرياضة في كلية التربية الأساسية يساعد في تحسين التفكير الشمولي ومهارة الارسال من الاسفل، ويتفوق على التحسينات لدى الطالبات اللواتي يتعلمن بدونها، وهذا ما يحقق احد اهداف التنمية المستدامة للامم المتحدة في العراق (التعليم الجيد). ومن الضروري الإهتمام بتطوير إمكانات مُدرسات الكرة الطائرة في قسم التربية البدنية وعلوم الرياضة في كلية التربية الأساسية وتحسين معارفهن بإستراتيجية الاستقصاء العادل لتطبيقها في الدروس العملية على وفق مراحلها ومفردتها وحسن توظيفها في هذهِ الدروس.

الكلمات المفتاحية | **إستراتيجية الأستقصاء العادل ، التفكير الشمولي**