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THE EFFECT OF VISUAL TRACKING EXERCISES ON SOME MOVEMENT ABILITIES AND THE SKILL OF DEFENDING THE COURT IN VOLLEYBALL FOR STUDENTS

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Abstract
One of the fundamental skills in volleyball is paying attention to visual workouts since, in great part, the game depends on sight. The study sought to create a series of visual exercises and ascertain how they would affect some motor skills as well as court defense ability. To fit this study and the nature of it, the researchers applied the experimental approach including one experimental group. issue, and these drills were implemented on a sample of thirty fourth-year College of Physical Education - Wasit University students. Following the completion of the primary trial, the researchers arrived to the most significant findings: the created visual exercises improved motor skills and ability by means of their favorable and efficient impact. One of the most crucial advice is to rely on such activities and on other examples at various ages since their relevance and influence on the level of learners in a good and effective way define the court in volleyball for students.
Keywords: Visual Tracking, Exercises, Movement Abilities, Skill Defending, Volleyball.

Introduction

The educational process is one of the main pillars of sports activity that cannot be skipped to get excellent learning outcomes since educational programs depend on comprehensiveness and involve most of the capacities in performance, whether cerebral, motor, psychological, or physical (Jacobs & Wright, 2018). An essential aspect of volleyball is the proficiency of learners' visual abilities (Khaliq, Hussein & Rajab, 2024). This skill is crucial for players to effectively execute motor activities (Boichuk et al., 2020). The mental and motor abilities of learners are interdependent in this context (Bisagno & Morra, 2018). Sensory information is received from the external environment and processed in the centers of cognition (Sors et al., 2018). This information is then interpreted and suitable responses are generated. Motor skills are required to physically reach and acquire objects, such as a ball, with spatial accuracy (Ottoboni, Nicoletti & Tessari, 2021). Moreover, the optimal time is crucial since any alteration in the arrival process impacts the reception and defense of the field, as well as the accuracy of the ball reaching the intended player or any other player (Paulo et al., 2018).Visual tracking is a crucial factor in selecting athletes, as it involves the eye scanning the field and following the movement of the ball towards it (Fortin-Guichard et al., 2020). This ability to track the target's movement, regardless of its speed or direction, is essential (Mercado-Palomino et al., 2021). The significance of this research lies in understanding the impact of these workouts, which primarily focus on

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cognitive aspects and motor abilities, in enhancing performance in volleyball. These workouts emphasize quick thinking, agility, and defending the field, ensuring the safety of the players and the venue.

Research problem:

Researchers observed a volleyball class and concluded that there is an insufficient emphasis on exercises that focus on the cerebral aspects, with more attention given to the physical aspect. The researchers relied on visual workouts, which are crucial in the game of volleyball due to their significant impact on most of the joints during the session. The researchers were motivated to develop a series of exercises tailored to the abilities of the participants in the study. These exercises aimed to target weaknesses and enhance various mental traits and qualities. They were designed based on scientific knowledge about how they can impact the participants' physical abilities and defensive skills in the context of volleyball.

Research Objective

Identify the effect of visual tracking exercises on motor skills and defensive performance in volleyball**.**

Research hypotheses

There are statistically significant differences between visual tracking exercises in some motor abilities and the skill of defending the field with volleyball.

Research Areas

Human Area: Students of the fourth stage in the College of Physical Education and Sports Sciences - Wasit University.

Time Area: The period was from 10/3/2024 to 21/4/2024.

Spatial Area: Volleyball Stadium in College of Physical Education and Sports Sciences - University of Wasit.

Methodology

Research Methodology:

The researchers employed the experimental technique, utilizing a single experimental group that was tailored to align with the nature of the research.

Research community and sample:

The research community consists of 150 students in the fourth stage of the College of Physical Education and Sports Sciences at Wasit University for the academic year 2023-2024. These students are enrolled in the morning study program and have been selected based on their ability to meet the research requirements. The research sample was recruited by a random lottery method, consisting of 30 students from division B. These students represent 20% of the total population and form the experimental group.

Means of gathering information

1. Registration Forms
2. Volleyballs, tennis balls, stopwatches, signs
3. Pens, Registration Forms
4. Whistle, colored ribbons

Field Research Procedures:

Tests used in research:

First: Motor abilities test

Test of throwing and receiving the ball on the wall (El-Deeb, 2012).

Purpose of the test: Measurement of motor compatibility between the eye and arm.

Tools: tennis ball, wall, line drawn 5 m from the wall Registration form.

Performance Description : The laboratory stands in front of the wall and behind the line drawn on the floor, as the test is carried out according to the following sequence:

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1. Throw the tennis ball five times in a row with the right hand, provided that the tester receives the ball after bouncing off the wall with the same hand.
2. Throw the tennis ball five times in a row with the left hand, provided that the tester receives the ball after bouncing off the wall with the same hand.
3. Throw the tennis ball five times in a row with the right hand, provided that the tester receives it after bouncing off the wall with the left hand.

Registration : For each correct attempt, a score is calculated for the laboratory and the final score is (15) degrees.

Response speed test (Dolo, Grgantov & Kuvačić, 2022).

Test objective: to measure the transition power according to the stimulus

Tools : flat ground with a length of (20) meters and a width of (2) meters, adhesive tapes, temporary clock, signs.

Test description: The learner stands at the halfway line, which is far from the left and right side by a distance of (6.40) for both sides, and at the signal of the arbitrator, the learner runs against the direction of the arbitrator's hand until reaching the finish line.

- In the event that the laboratory moves against the required direction, the timing is continued until the return and correction of the required movement.
- Each laboratory is given (10) attempts.
- **Registration:** Done according to the time of ten attempts.

Second: Test the accuracy of the skill of defending the field (Marszalek et al., 2015).

Accuracy assessment test for the skill of defending the field from the back area.

Objective of the test: to measure the accuracy of the skill of defending the field.

Tools used: legal volleyball court, 5 balls and colored tape to divide the court

Performance specifications: The laboratory stands ready to defend against the balls hit crushing in the center (1) and the teacher stands in the opposite field on a table to perform the crushing beating towards the back area and the laboratory performs the defense as required by the situation.

Performance conditions: Each laboratory is given (3) attempts for each area (1, 6, 5) so that the maximum degree is (27) degrees, but in the case of the exit of the defending ball to the outside, it is given (zero) to try.

Registration: The tester is given the score of the area where the ball falls.

Exploratory Experiment:

The researchers conducted an exploratory experiment on (Tuesday) 12/3/2024, using tests and exercises. The experiment involved a sample of (10) students from the College of Physical Education and Sports Sciences - Wasit University, who were not part of the main experiment. The experiment took place at ten o'clock in the morning.

Pre-tests:

The researchers conducted preliminary assessments for visual tracking, skill accuracy, and defensive abilities in volleyball among students on Sunday, October 3, 2024, at 10:00 AM. The assessments took place on the volleyball court at the College of Physical Education and Sports Sciences - Wasit University. The assistant work team provided assistance, and the researchers directly supervised the tests.

Main experience:

After completing and completing the pre-tests and preparing the main experiment requirements, the researchers began to apply the experiment on (Wednesday) 13/3/2024 to the members of the research sample, as the prepared exercises were applied, which numbered (16) exercises along the experiment period, and by (4) exercises in each educational

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unit and in the first part of the educational units, which had a time of (20) minutes of the total part of those units, and their total was (8) educational units.

Post-tests:

The researchers conducted post-tests on Wednesday, 8/5/2024 at ten in the morning, at the volleyball court of the College of Physical Education and Sports Sciences - Wasit University. The purpose was to assess the visual tracking and accuracy skills of students in defending the field with volleyball. The researchers made efforts to replicate the same conditions as the pretests, including time, place, devices, tools, method of implementation, and the assistant work team, in order to ensure consistency and comparability with the pretests.

Statistical methods:

The researchers employed statistical techniques within the statistical software package for psychological and social sciences (SPSS-23).

Presentation and discussion of results

Presentation and discussion of results between pre- and post-tests.

Table 1: Shows the results of tests to indicate the differences between the pre -and post-test among the members of the experimental group in the abilities of movement and the skill of defending the field in volleyball Students of the fourth stage in the Faculty of Physical Education and Sports Sciences - University of Wasit n = 30.

Variables	Unit of measurement	Pre-tests		Post-tests		T	Sig
		M	SD	M	SD		
Compatibility	Degree	10.16	4.41	11	3.84	5.866	0.000
Responsiveness	Time	3.48	1.25	3.39	1.22	5.791	0.000
Defense	Degree	17.58	7.29	18.08	6.48	5.319	0.000

Discussion of the results:

The researchers attribute the improvement in motor compatibility among the participants of the study to the independent variable of visual tracking exercises. These exercises play an effective role in the development of comprehensive preparation and the utilization of multiple senses during performance. The more parts of the body are involved in the performance, the greater the need for compatibility (Ali & Kasim, 2022; Shaalan, Aboode & Radhi, 2022). The exercises closely resemble real play, particularly because they rely on the sense of sight to identify stimuli and generate appropriate responses. If the workout consists of multiple intricate motions performed simultaneously within a group of joint motor, mental, and sensory functions, under the supervision and involvement of the central and peripheral nervous system (Ali & Kasim, 2022; Vuorinen, 2018). The improvement in speed and kinetic reaction can be linked to the quality and effectiveness of the workouts provided to the units, which made a substantial contribution to their development. If speed, in all its aspects, is considered one of the crucial attributes for a volleyball player, it is imperative for them to possess rapid thinking and awareness of their surroundings in order to respond effectively to game scenarios (Récopé et al., 2019. Additionally, they must exhibit swift ball retrieval and execute motor skills promptly, all of which necessitates learners to possess a great degree of speed and velocity (Ahmadi et al., 2021; Ali & Kasim, 2023). The motor response is a crucial aspect that enables the player to swiftly and accurately execute the essential movements and actions (Ottoboni, Nicoletti & Tessari, 2021). The user states that speed is a crucial asset in terms of receiving and delivering balls, as well as in the execution of defensive or offensive maneuvers. The user emphasizes that speed should be prioritized during the selection process and given significant attention during training. When the player or learner is very focused, it leads to positive reactions and faster motor responses, which enhance speed and accuracy in movement. The advancement in the field of defense is primarily attributed to the fact that most exercises necessitate learners'

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attention and the engagement of all their senses in visual exercises (Engbers, 2021). The process of defending the field commences with the proper preparation and reception of balls, followed by their accurate delivery (Al-Dulaimi, Ibrahim & Ulaiwi, 2024; Kasim & Ali, 2021). The first ball holds utmost significance in volleyball as it serves as the key to executing the game correctly (Ismailova, 2023). Through proficient reception, the team gains control over the game and can effectively prepare for and launch attacks. Furthermore, the use of consistent performance and regular repeats in instructional modules, accompanied by ongoing feedback, effectively motivates learners to actively participate and improve their performance, resulting in overall enhanced learning outcomes. Learners that possess a broad vision are better capable of interpreting events and their surrounding context, as well as comprehending them and providing appropriate reactions to stimuli with a high level of accuracy and speed.

Conclusions:

1. The performance of visual exercises had a beneficial and impactful influence on motor abilities, as seen by the results.
2. The educational units focused on visual tracking have made significant progress in enhancing technical performance accuracy and stadium defense skills.

Recommendations:

1. The significance and effectiveness of these workouts and other examples, at various ages, in enhancing the learners' level, are relied upon.
2. It is important to prioritize the visual abilities of kids, particularly in sports that demand precise execution.
3. Performing analogous research and investigations on various visual capabilities associated with volleyball proficiency, using other samples.

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Appendix (1)
Model for optical tracking exercises

No	Exercise Description
1	The teacher, assistant or one of the students stands in front of the student with different balls in their hands, the movement and performance of tasks are carried out according to the color of the ball that comes out of the hands of the teacher or one of his assistants, knowing that the student is informed of the kinetic duty for each ball and its color.
2	The teacher stands behind the player's back with his assistant carrying the balls, and at the start signal, the coach throws the balls over the student's head to move towards the ball and deliver it to the player in front of him before it falls into the ground, the exercise continues until the word stop is heard from the teacher
3	The teacher and his assistant throw balls of different colors, if the color of the ball is red, the student delivers the ball to the colleague from the bottom, and if the color of the ball is blue, he delivers the ball from the top, but if the color of the ball is green, he delivers the ball with one hand and according to the hand of the hand to which the ball is thrown
4	The teacher stands with two balls in his hand, one in red and the other in blue, and his assistant holds two balls in the same color as the colored balls, then the assistant throws the balls high and at the same moment the teacher raises one of the balls so that the student moves towards the ball similar to the color of the ball and delivers it to the colleague.