THE INFLUENCE OF BODY MOVEMENT AWARENESS TRAINING IN THE DEVELOPMENT OF SELF-CONTROL AND SENSORIMOTOR-SPATIAL PERCEPTION OF HIGH JUMPERS UNDER 18 YEARS OLD

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ABSTRACT

The purpose of this paper is to study the influence of body movement awareness training in the development of self-control and sensorimotor-spatial perception of high jumpers under 18 years old. The experimental method was used by designing a single group with a pre and post-test to solve the research problem, as the research sample was selected from the players of the Al-Hilla Club in the high jump. The tests (self-control and awareness of the distance of the forward jump) were carried out after conducting the pre-tests and then carrying out body movement awareness exercises for a period of two and a half months and over two units during one week and at a time of 15 minutes for body movement awareness exercises in the main section of the training unit. After that, post-tests were conducted and the results were collected and processed statistically by the Statistical Package for the Social Sciences (SPSS) system, and it was concluded that the implementation of body movement awareness exercises has developed self-control and spatial kinesthetic perception of high jumpers under 18 years old. Therefore, the two researchers recommend investing in body movement awareness exercises for their positive and influential role in developing self-control and sensorimotor-spatial awareness for high jumpers under 18 years old.

Keywords: body movement awareness training - self-control - sensorimotor-spatial perception

I. INTRODUCTION:

Body movement awareness training aims to prepare the player for his specialized sport, as these exercises use many developed concepts to improve self-control in motor performance that requires moving balance and awareness of motor sense at the same time in order to improve sports performance and reduce the rate of injuries. Awareness of body movements in their simplest forms leads to teaching the player how to deal with his body weight with a perfect sense and awareness, and this is what is required by my high performance.

Body movement awareness exercises include balance and inner awareness (body awareness) to perform any movement specialized in the type of sporting event. The effectiveness of the high jump is one of the activities that require a special motor and physical abilities and a sense of movement in harmony with its performance, as this activity requires a good level of self-control over the body’s movements, perception, sensation and moving balance while crossing the crossbar.

Therefore, the two researchers sought to pay attention to the self-control and spatial awareness of high jumpers under 18 years of age by investing awareness exercises of body movements and the purposeful and specialized training that is characterized by it in integrating exercises of moving balance with bodyweight with a sense and awareness of motor performance in the same exercise to develop self-control and sensorimotor-spatial perception of high jumpers under 18 years old.

Research problem:

The effectiveness of the high jump in the Dick Fosbury method is one of the difficult activities to learn, master and develop achievement is due to the difficulty of performing it on the one hand, and its dependence on the
ability and ability of the player to overcome the resistance of body weight against Earth gravity, with the high ability to control and control the position of the body when leaving the ground and flying over The crossbar, and that all these stages need the coach to think about how to develop performance and achieve achievement after mastering the learning of the skill.

Therefore, the two researchers sought to experiment with body movement awareness exercises by integrating balance exercises with sensory awareness (self-awareness) in the effectiveness of the high jump to address the research problem.

**Research objective:**
Identify the influence of body movements awareness training in the development of self-control and sensorimotor-spatial perception of high jumpers under 18 years old

**Research hypotheses:**
Body movement awareness exercises have a positive effect on the development of self-control and sensorimotor-spatial perception for high jumpers under 18 years old

**Research fields:**
- **Human field:** the players of Al-Hilla Sports Club in the high jump, which are (4) players under the age of (18) years.
- **Time field:** the period from 25-2-2021 to 10-5-2021.
- **Spatial field:** Najaf International Stadium in Najaf Governorate.

II. **RESEARCH METHODOLOGY AND FIELD PROCEDURES:**

**Research Methodology:**
The experimental method was used by designing a single experimental group with a pre and post-tests to solve the research problem.

**Community and sample research:**
The research community was identified with high jumpers under the age of 18 years. The research sample was selected from the players of Al-Hilla Sports Club in the high jump, which are (4) players under the age of (18) years. They represent the community by (100%).

**Means, tools and devices used in the research:**
- Arab and foreign sources and references.
- International Electronic Information Network (Internet).
- Observation and experimentation.
- Unbalanced round and rectangle wooden board, scooter, and shoes with moving wheels.
- Measuring tape and adhesive tape.
- Electronic stopwatch.

**Search tests:**

**Self-control test:**
- **Test purpose:** to measure self-control (moving equilibrium)
- **Test tools:** stopwatch, tape measure, (11) marks fixed to the ground, the distance between one mark and another is 75cm.
- **Description of the test performance:** The tester stands on his right foot on the starting point, then starts to jump to the first mark with his left foot, trying to keep his position on the left instep for a maximum of
5 seconds, after which he jumps to the second mark with his right foot. And so by changing the landing foot from one mark to another and resting on the instep each time, noting that his foot is above the mark. The test is supposed to be within 50 seconds, but when any error occurs in the instability or descent above the mark, its time is reduced by five seconds. Thus, the more time, the better the control and balance.

- **Recording method**: Calculates the time that the tester travels from the start of the test to the finish line as show in the figure (1).

![Fig.1 shows the method of the self-control test (moving equilibrium).](image)

**Forward jump distance perception test:**
- **Test purpose**: To measure the spatial-motor perception of the lower extremities.
- **Test tools**: stopwatch, tape measure, ground-mounted marker, eye band.
- **Description of the performance of the test**: It is done by selecting a specific area forward without using the sense of sight, draw two lines on the ground so that the distance between them is (60) centimeters. The tester stands on the starting line and sees the distance required for the imam jump. Put the blindfold on the eyes and wait for five seconds, jump from the starting line trying to touch the heels to the ground at the finish line, two attempts are given to jump.
- **Recording method**: Recording the distance that the tester installs between the two lines to the nearest cm, calculating the sum of the two attempts at the end.

**Exploratory experience:**
The exploratory experiment was conducted on (2-25-2021) at ten in the morning on the research sample, which numbered (4) players, in order to identify the obstacles that appear during the tests or conduct the main experiment.

**Main Experiment Procedures:**

**Pre-tests:**
Pre-tests were conducted on the research sample on (4-3-2021), after a warm-up was conducted for the research sample members, and all temporal and spatial conditions were established for the purpose of unifying them with the post-tests.

**Body movement awareness exercises applied:**
After the body movement awareness training curriculum was prepared, it included movements (moving balance and kinesthetic perception with time and without time, with tools and without tools).

Implementation of the experimental group work was started on 3-5-2021 until 9-5-2021. Two units per week, on Friday and Saturday of each week, over a period of (10) weeks and for two and a half months, and the total number of training units amounted to (20) training units.

Body movements awareness exercises are implemented at the beginning of the main section of the training unit immediately after the warm-up and at a time of 15 minutes, and by adopting the principle of gradation and undulation between exercises, between units and between training weeks, and the exchange in the work of muscle groups between one exercise and another, and the researchers did not interfere in the rest of the parts and sections of the training unit.
Auxiliary tools were used to implement body movement awareness exercises, including inverted plastic half balls, benches, collars and agility ladders. Unbalanced round and rectangle plank, scooter, a shoe with moving tires.

**Post-tests:**

After the completion of the main experiment, the post-tests were conducted on the experimental research sample on 10-5-2021 at ten in the morning after the warm-up was conducted for the research sample members, and all the temporal and spatial conditions were fixed for the purpose of unifying them with the pre-tests.

**Statistical methods:**

The search data was processed through the Statistical Package for the Social Sciences (SPSS).

**Presentation, analysis and discussion of the results:**

Table (1) shows the statistical parameters to find the differences between the pre and post-tests in the research sample.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Test</th>
<th>Arithmetic mean</th>
<th>Standard deviation</th>
<th>Difference between arithmetic mean</th>
<th>Difference between standard deviations</th>
<th>T value</th>
<th>Sig level</th>
<th>Sig type</th>
</tr>
</thead>
<tbody>
<tr>
<td>self-control</td>
<td>Pre-test</td>
<td>37.5</td>
<td>2.73</td>
<td>8.66</td>
<td>3.01</td>
<td>7.05</td>
<td>0.001</td>
<td>Sig</td>
</tr>
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<td></td>
<td>Post-test</td>
<td>46.16</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Forward jump</td>
<td>Pre-test</td>
<td>12.57</td>
<td>0.97</td>
<td>5.28</td>
<td>1.6</td>
<td>8.72</td>
<td>0.000</td>
<td>Sig</td>
</tr>
<tr>
<td>distance perception</td>
<td>Post-test</td>
<td>7.28</td>
<td>1.12</td>
<td></td>
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</tbody>
</table>

Table (1) shows the development of the experimental research sample that carried out body movement awareness training in self-control and sensorimotor-spatial perception ability. Which was characterized by mixing kinesthetic awareness exercises under conditions of imbalance and stability of the player’s feet on the surface of unstable tools with the requirements of speed and accuracy of performance, which do not go beyond the performance similar to the motor paths of skilful muscular performance in the effectiveness of the high jump.

As the awareness exercises of body movements had a positive effect in developing self-control and the ability of sensory-motor-spatial perception by working on muscle contraction and relaxation with a fast sensory-motor balance and in the least time, which helped in stimulating the nerve impulses of the muscles and thus the development of the working and corresponding muscles and the auxiliary muscles and giving them motor balance required⁴. The greater the muscle’s ability to stretch and fit, the greater the chance for rapid muscle contraction with balance and control over body parts⁵. Studies confirm that body movement awareness exercises that are designed to achieve a specific goal in the type of specialized sports activity develop the goal to be achieved with a high economy of effort, money and time⁶. While giving positive results in increasing desire and readiness for training, thus raising physical and skill performance with high efficiency⁷. As the exercises of awareness of body movements are characterized by instability, which required the player to have a high ability in the locomotor system and the balance device and thus make a high effort when performing movements in different parts of the body and in various directions and at high speed, which increased the perceptual ability of the kinetic sense and the development of the balance device in the research sample. The imbalance exercises in the pivot base and in different directions work to maintain balance and enhance the player's ability to self-control his movements when performing⁸.

**REFERENCE**

2. Davis, B. et Al.; (2000); physical Education and the study of sport. UK: (Harcourt publishers Ltd.)P129.

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