LEVEL OF PHYSICAL MOTOR INTELLIGENCE AND ITS RELATIONSHIP TO THE ACCURATE PERFORMANCE BLOWS PLAYING ON THE NET BY BADMINTON

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ABSTRACT

The study aims to identify the level of physical motor intelligence in the study sample, also to identify the relationship between the level of physical motor intelligence and the accuracy of strokes performance on the net which is (blow hair pin, fatal blow, lightning strike). The sample was represented by University of Anbar badminton team. Statistic case (SPSS) was used to acquire results were the researchers conclude that the sample has an unfit physical motor intelligence level, in which physical motor intelligence is very important in learning skills in which the higher the physical motor intelligence the faster the learning process was.

Keywords: physical motor intelligence, accurate performance, Blows playing, badminton

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INTRODUCTION

Research Problem

The research problem lies in the inability of the sample members to keep pace with the requirements of the game in competitions through the emergence of errors in positioning during the performance of the game play strikes on the net and in the inability to reach the right place for the feather quickly and in a timely manner, causing a failure or weakness in the level of accuracy of performance, which felt The researchers study this phenomenon, and to know the levels of sample members for the accuracy of the performance of play strikes on the net and what they possess of spatial visual intelligence and whether the physical intelligence of the motor relationship in the accuracy of performance¹,². The problems of the research lies in some of the questions are: -

- Is it possible to know the levels of visual spatial intelligence of the research sample?
- Is it possible to know the extent of the relationship of spatial intelligence accurately performance of play strikes on the net?
- Can you know the sample levels of the search in the accuracy of the performance of the game play on the net?
Research Objectives
1- Identify the level of motor physical intelligence among the research sample.
2- Identify the relationship between the level of physical intelligence and the accuracy of the performance of play strikes on the net among members of the sample.

Research Impositions
1. There are several levels of physical motor intelligence in the sample.
2 - There is a statistically significant relationship between physical motor intelligence and the accuracy of the performance of play strikes on the net among the sample members.

Research Areas
Human field: players of the University of Anbar badminton team game for the year 2018-2019.
Temporal field: for the period from 10 - 2 - 2019 to 16 - 4 - 2019
Spatial field: Indoor Sports Hall at Anbar University.

MATERIAL AND METHODS
Research Method
The researchers used the descriptive method in the survey method to suit the nature of the research problem.

Community and sample research
The research compilation was selected and sampled in a deliberate manner represented by the players of the University of Anbar badminton team for the academic year 2018-2019 and the number (4) players.

Devices and tools used
- Badminton rackets type (YONEX) number (5).
- Tool badminton type (YONEX) number (4 Set).
- Badminton court and accessories (menus + nets)
- Colored adhesive tapes.
- Measuring tape length (15 meters).

Test strikes playing on the net\(^2\)

The Purpose of test: To measure the accuracy of the performance of the play strokes on the net.
Tools: Feather rackets, blades, playground layout with test planning\(^{3,4}\).

Performance Description:
After the test is explained to the testers, each laboratory is given (5) experimental attempts to warm up and then the player stands in the place specified for him (x) and (2) meters from the net and be put. Prepare to receive the badminton sent to him from the stadium opposite the net trying to drop it in the area of the highest degree and listed from (3, 2, 1) and the area of each is (1) meter (Fig. 1).

Performance evaluation:
- The player performs (12) attempts and calculates the best (10) attempts.
- The grade is given according to the location of the feather fall.
- The feather that lies on the line between two areas is given the highest degree.
- The highest points the player can get is (30) score.
- This test can be performed with a front or rear fist.

Physical motor intelligence Scale

Physical motor intelligence

To determine the level of the sample and its physical body intelligence, a scale of four stairs was used. The maximum score for the scale was (40) degrees and consisted of (10) paragraphs and the maximum score for each paragraph were (4) degrees and the scale were as follows:

<table>
<thead>
<tr>
<th>S</th>
<th>Paragraph</th>
<th>Very Rare</th>
<th>Rare</th>
<th>often</th>
<th>Common</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I use my hands a lot while doing sports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I exercise in at least one sport during my free time in an organized manner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I find it difficult to sit for long periods of time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I like to perform movements that require consistency between arms and feet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>My best ideas come when I'm walking outside, or doing some activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I prefer to spend my free time doing sports activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I need to touch things to get to know them more</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Enjoy motor activities or activities that require fast performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I like the sequence of skill performance while learning it</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I prefer to learn new skills by practicing them rather than just reading about them</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2019. They were excluded from the main experiment and the aim was.
- Identify the mistakes that researchers may face to avoid in the main work.
- Know the time taken to perform the tests.
- Difficult tests and how to implement them.
The main experiment
The researchers conducted the main experiment on Thursday 14/2/2019 on the main research sample of (4) players during which the level of physical intelligence was measured by means of the scale assigned to it and then the test of play strikes on the net was recorded results obtained by individuals The sample and each as its sequence.

Presentation, Analysis, and discussion of the results
Presentation and analyzing the results of the motor physical intelligence test and the strikes on the net with badminton\cite{5,6}.

Table 2: The values of correlation coefficients between motor physical intelligence and the main variables of the study

<table>
<thead>
<tr>
<th>Main Variables</th>
<th>Measuring unit</th>
<th>Mean</th>
<th>SD</th>
<th>(r) Calculated</th>
<th>Indication of differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hairpin Blow</td>
<td>Degree</td>
<td>12.5</td>
<td>2.872281</td>
<td>0.758786911</td>
<td>Not substantial</td>
</tr>
<tr>
<td>Deadly Strike</td>
<td>Degree</td>
<td>15</td>
<td>1.870829</td>
<td>0.245255736</td>
<td>Not substantial</td>
</tr>
<tr>
<td>Lightning strike</td>
<td>Degree</td>
<td>15</td>
<td>1.224745</td>
<td>0.187317162</td>
<td>Not substantial</td>
</tr>
</tbody>
</table>

Since the value of the calculated correlation coefficient and for all variables is smaller than the value of t-tabular value of (0.950) below the level of significance (0.05) and in front of the degree of freedom 4-2 = 2, this indicates the irrelevance of the correlation and thus accept the zero hypothesis and reject the alternative hypothesis. The researchers attribute the reason to the nature of the game, it requires quick decisions and requires the player level of penance and intelligence to be able to take those decisions to act in different positions of changing play, the player who has the abilities of mental ability to act and perform the appropriate and proper planning and skills of the positions faced in the stadium during the games. This is the result of the players' results during their participation in the tournament where they did not get any results, which may require a reconsideration of the selection of the players and take into account the team officials take into account the level of physical intelligence of the players because of its importance in achieving Better results. "A smart athlete is naturally better able than others to behave quickly in changing play situations. This is called play intelligence or physical field intelligence. This is used to refer to practical intelligence in sports activity\cite{4}.\cite{7,8}"emphasizes that people with physical motor intelligence excel in physical activities and coordination between the visual and motor and have a tendency to movement and touch objects and the ability to exercise physical exercise and that they have a physical motor skill and acquire knowledge through movement and processed through the sense of the body\cite{5}. As Garnder (2001) confirms that the athlete who possess the Physical-Motor Intelligence "is an athlete who has the ability to control their body; it's grace, balance, and coordination of the movements. And the improving of this skill is linked to frequent exercising\cite{6}. For the players to gain advanced positions in the athletic games, it's a must for the player to possess a perfect scale of Physical-Motor Intelligence, and that's because of the correlation
that exists between the intelligence and motor performance, whether it's in performing a skill or in the results and score points to win the matches \cite{9,10}. Therefore, every student has their own style that they're distinguished by, through thinking, understanding, analyzing and grasping. So for the members who possess a high level of intellectuality, their traits are in controlling with their body movements and motor intelligence behavior\cite{11,12}.

**CONCLUSION**

1. The results showed that the individuals of the sample possessed a good level of physical-motor intelligence.
2. The physical-motor intelligence is very important in learning skills as the higher the physical-motor intelligence of the player the faster the learning.

**RECOMMENDATIONS**

1. Use physical-physical intelligence test to learn the grades and levels of learners to use in building training curricula.
2. Emphasize the coaches on the importance of the level of physical intelligence - motor when choosing players.
3. The need to identify the degree of physical-motor intelligence in the field of sports in general.
4. Conducting future research similar to other variables related to the skill performance of other sports.

**ETHICAL CLEARANCE**

The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq.

**CONFLICT OF INTEREST**

The authors declare that they have no conflict of interest.

**FUNDING**: Self-funding

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