THE COACHING BUILD-UP: EFFECT OF CHANGING THE PERFORMANCE EPITOPE OF SOME HARMONIC ABILITIES &THE ACCURACY OF NET SKILLS FOR BADMINTON ATHLETE

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Abstract

The science of sports training is one of the important sciences because it is concerned with each item that is new and influential in sports sciences and physical education.Since, it is one of the scientific rules that cannot be ignored and has a major role in raising the state of sports performance at the physical, kinetic, and skill levels.Badminton is a sports that has witnessed a great development. Therefore, paying attention to it has become an assignment in terms of training and preparing multiplexdrilling, due to its closeness to the technical performance of that sport. Which, has a great role in developing kinetic and skill abilities.Thus; player's performance in the implementation of skills will ameliorate.

The importance of research lies in the kinetic and skill abilities that have an effective role in developing the level and accuracy of the player's performance, because it works to adapt it to more than one goal at one time. The research was directed at changing the nature of the training process (changing the measurements of the playing areas and the height of the net), in order to create an appropriate environment for the players.

Keywords: Harmonic abilities. Skills. Players. Badminton

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Frame Work

The researchers figure on the theory of sports training in-order to enhance the training process and technical staff for badminton players: preparing multiplex drilling (double or triple goals) according to a change in some measurements of the dimensions of the playing areas, which include the height of the net and the accuracy of the player's skills in the frontal area and the transmission. And raising the level of performance of the special kinetic ability represented by agility, compatibility, and balance. Also, the accuracy of net skills.

The Aim of work

1. Preparing multiplex drilling according to the measurements of performance determinants to develop: agility, compatibility, balance, and accuracy of net skills performance.
2. Knowing the effect of these complex exercises on developing the accuracy of network skill performance, agility, as well as compatibility and balance.

The Hypothesis

There is an effect of multiplex drilling according to the measurements of performance determinants to develop: agility, compatibility, balance, and accuracy of net skills performance.

The Fields of Work

- Spatial domain: Olympic Hall / Misan International Stadium.
- Temporal domain : 10 Jan. 2021 to 20 April. 2021
- Human domain: Misan city badminton team of athletes.

Methodology

Equivalent groups (pre and posttest) were used, which is directly proportional to the nature of this study. The only approach that accurately explains the relationship between effect and cause, where experimental research is characterized by the possibility of controlling the studied variables, which in turn are in other variables (Mohammed, 1999). The method of comprehensive enumeration of the research sample was chosen, a method in which the selection was made in a free manner, as it achieves the objectives of the research (Doukan, 1988). It is represented by 10 players from the Misan governorate team, they were divided into two groups: experimental and commanding team (a random lottery was adopted to divide them).

Data-Base and Tool Equipment

1. Arab and foreign references .
2. Personal discussion with experts and specialists.
3. Self-observation by the authors.
4. Data form.
5. Badminton court with racket and feathers.
6. Ball blasting with different speeds.
7. High speed camera.

The Tools

Tests and measurements.

The Procedures

After presenting the research variables and discussing them with the competent authority in the sports field, the following tests were conducted:

Firstly: Kinetic ability tests

1. **Quinn's test of agility**

This test measures the player's ability to start and stop as well as change direction (Wisam, 2013).

The tools: badminton court - stopwatch - badminton rackets - feathers.

Implementation of Test

• The player stands in front of the coach, in the middle of the court (at the imaginary line under the net).

• Distribute 8 blades in the corners of the court.

• The coach holds the racket in his hand and the timer in the other one, and points it to one of the corners of the court and directs the player to the right or left.

• The player moves quickly to feather and touches it , and return to the middle of the field.

• The player repeats this move 8 times (once for each direction), consecutively and without stopping.

• The coach changes the direction system in every attempt without the player's knowledge, who must respond to the coach and the feather.

• The last move of the player in the eighth feather.

• The best score is calculated between every two attempts (including a 2-minute break).

2. **Numbered Circles Test**

The purpose of this test is to measure the compatibility between the legs and the eyes (Wisam, 2013).

The tools: stopwatch, 8 numbered circles drawn on the ground with a diameter of 60 cm.

Performance specifications: The player stands at the first circle, and jumps according to the second to the last circle, when he hears the start indicative.

Scoring: Recording the time the player took to move between circles 1-8.

3. **Moving Over spots Test**

The purpose of this test is to measure balance during and after movement (Wisam, 2013).

The tools: stopwatch, tape measure, colored pen.

The performance of specifications: The player must stand on the starting line with his right foot on the mark No. 1, provided that the instep of his left foot covers the mark. The player tries to stabilize and then jump to point No. 2, in the same manner in each jump up to the last mark.

Scoring: 100 degrees for each jump and hold.

Secondly: Skill Tests

The test of basic netplaying skills: It is intended to measure the accuracy of a player on the net (Mazin, 2013).

The performance of specifications: The coach performs a skill projected to the sides of the net at his particular performing field. The player get off from the middle of courtand execute the skill of net, as long as the shuttlecock crosses the net bar.

Scoring: After five repetitions, the score calculated by dropping the feather at three locations : Immediately behind the net 3 points, the next two points, and furthest spot from the net will get 1 score.

The exploratory experiment:

Before the researcher determines the research methods and tools, he must conduct an experimental study, which is a preliminary experiment on a small sample (the Arabic Language Academy, 1984). Consequently, the experiment was conducted 2 players on10/1/2021.

Tribal Tests:

These tests were applied for both two groups (experimental and commanding team). Olympic Hall / Misan International Stadiumon 15 Jan. 2021 at 3:00 pm.

Fundamental Test:

The peculiarpractices were applied to the experimental group on 18/1/2021. The special exercises include 16 training doses divided into 8 weeks (two doses on Sunday and Wednesday of each week), the exercises ended on 9/3/2021. The compound implementations focused on developing agility, compatibility, balance, and accuracy of net skills performance.

During exercises with different objectives (compatibility with network performance skills). The exercises were scientifically subject to scientific reasoning of multiplex sports training and in a repetitive manner. While, the control group, the training plan was prepared by the trainer, and it consisted of 12 exercises (6 exercises for each training dose). In these potions, the rule of change and repetition is applied in order to achieve adaptation. The researcher intentionally applied the exercises strictly and united with skill performance.

Post-tests:

These tests are comparable to the tribal tests, the purpose of it in-order to know the level reached by the research samples. The third test was conducted in 3:00 pm on 11/3/2021. The results were statistically processed to clarify the differences between the two groups.

Statistical method:

The SPSS program was used:

1. arithmetic mean.
2. Standard perversion.
3. t-law for correlated samples
4. t-law for independent samples

The Results& Discussion

1. The results of pre-and post-tests of commanding group:

Table 1 shows the arithmetic means, standard deviations, the calculated t-value, as well as the level of errors and the function of differences, before and after the control group (Table 1).

Significant affirmative improvement results was showed a through the values of the differences between the two tests for the arithmetic means. As well as, the calculated time values for the corresponding samples, the result of which for all the variables was less than 0.05,viz, the moral differences were in favor of the post-tests. Thus; the second hypothesis of the research was fulfilled. This because of attributing to the exercises applied by the commandinggroup during the main experiment prepared according to the principles and foundations of sports training (training loads and shapes) by the coach.

2. The results of pre-and post-tests of experimental group:

Table 2 shows the arithmetic means, standard deviations, the calculated t-value, as well as the level of errors and the function of differences, before and after the control group (Table 2).

Significant affirmative improvement results was showed a through the values of the differences between the two tests for the arithmetic means. As well as, the calculated time values for the corresponding samples, the result of which for all the variables was less than 0.05, viz, the moral differences were in favor of the post-tests.

The researchers have pointed out,the effect of multiplex drilling according to the different measurements of the badminton court, which had a role in showing some differences in the post tests for all variables. The path of this method is comparable to the kinetic skill and the movement of the player while performing it. The researchers indicated that the significant differences in the construction of training loads were in favor of multiplex drilling, which include: training load, the repetitive method , and training method. Thus; the researcher has achieved the main intentionto progress the harmonic abilities of badminton player, and it led to positive results in the accuracy of network skills. This resultscorresponds to Ibrahim (1988), who has indicated that one of the most important factors that effect on principals of success of the sporting status are built by physical abilities. Which are associated with development of kinetic skills.

Table 1: The significant below the level of significant ≤ 0.05 at 4°C.

Tests Variables	Measurement unit	Tribal Tests		Post Tests		t-Test	Level Significance	Difference Function
		X'	A	X'	A			
Agility	Time	11.01	0.53	10.32	0.55	5.47	0.00	moral
Evenness	Score	69.92	6.07	82.14	5.78	3.98	0.01	moral
Compatibility	Time	8.21	0.82	7.93	0.28	3.96	0.01	moral
Net Skill	Score	8.50	0.88	10.25	0.96	3.20	0.01	moral

Table 2: The significant below the level of significant ≤ 0.05 at 4°C.

Tests Variables	Measurement unit	Tribal Tests		Post Tests		t-Test	Level Significance	Difference Function
		X'	A	X'	A			
Agility	Time	11.61	0.75	9.65	0.71	3.97	0.00	moral
Evenness	Score	72.50	8.02	88	9.26	7.61	0.00	moral
Compatibility	Time	8.40	0.78	6.75	0.57	4.25	0.00	moral
Net Skill	Score	8.75	0.75	11	0.89	4.73	0.00	moral

Table 3: The significant below the level of significant ≤ 0.05 at 8°C.

Tests Variables	Measurement unit	Commanding G.		Experimental G.		t-Test	Level Significance	Difference Function
		X'	A	X'	A			
Agility	Time	10.32	0.55	9.65	0.71	3.56	0.01	moral
Evenness	Score	82.14	5.78	88	9.26	8.57	0.00	moral
Compatibility	Time	7.93	0.28	6.75	0.57	2.84	0.02	moral
Net Skill	Score	10.25	0.96	11	0.89	2.96	0.02	moral

3. The results of post-tests for both commanding & experimental group:

Table 3 shows the arithmetic means, standard deviations, the calculated t-value, as well as the level of errors and the function of differences, before and after the control group (Table 3).

According to table 3, the results appeared significant affirmative improvement results was showed a through the values of the differences between the two tests for the arithmetic means. As well as, the calculated time values for the corresponding samples, the result of which for all the variables was less than 0.05, viz, the moral differences were in favor of the experimental group. This is because of the multiplex drilling aimed todevelop the accuracy performance of network skillingby agility, fit and balance, and weight carried out by the experimental group. Furthermore changing the direction and speed of movement from one center to another during training. In addition to, the unanticipated and various recent movements led to abridging the time period. This is consistent with Al-Hiyari (1987). Also, these results confirmed by the Wadee (1986), where he indicated that the development of special kinetic abilities supports the player to perform the kinetic performance of the skill.

These results permit the player'sability to control the net skills by dominate the directing of shuttlecock at high speed into the opponent's area. This requirements of performance: High kinematic compatibility between the movement of the two legs and his view of the feather and the net, this led to the correct timing of hitting the feather. And the agile player take part in fast when returning to the middle of the field or changing the position of his body, arm, or leg. As well as, the balance ability when extending the arm joints of the body in order to be in a balanced position to direct the feather in the right place. This is because of unbalancing leads to counterproductive results. These consequences are consistent with some of previous studies: Most of the badminton skills are characterized by fast rhythms, which are integrated with the motor traits [3]. Agility is one of the various kinetic abilities in a large extent, especially in skills that require joint movement on a large scale. Accordingly, it allows the athlete to perform the movements with the least effort [Mufti, 1998]. Also, it contributed to use of other components with more agility (Marwan, 1999).

The researcher has pointed out, that the development of skill exercises associated with the speed of performance in sudden situations, led to the excitement of the nervous system. Thus; there will be a great harmony between the nerves and the muscles (a muscle contraction occurs at the required moment and as quickly as possible). As a result, the kinetic response ameliorates. The findings consistent with [Qassem, 1979], who confirmed: The appropriate state for excitation of the central nervous system via speed training, is achieved by athlete's previous and effortless activity.

The preparation of compound exercises is aimed at developing harmonic abilities such as agility, compatibility, and balance. Provided that this development is in kinetic directions similar to the performance of handballgame. In the exercises related to the preparation of the game skill, the explosive strength exercises should be combined with defensive and offensive moves. This was confirmed by [Owais, 2000], has pointed out, "a misconception that there is a separation between the development of physical abilities and kinetic skills." Also, the researcher Abul-Eula has clarified that the skill performance is linked to the explosive power and the distinctive force of speed (Abu El-Aula, 1997). Therefore, explosive strength exercises should be given in the path of muscle contraction kinetics during the performance of individual and collective defensive moves (within the limits of the defensive formation).

Conclusions

1. Agility, compatibility, and balance, were positively affect by multiplex drilling and changing dimensions of the playing field.
2. To increment the promptitude of the net skill, the exercises should be applied in a path similar to the kinetic path of the skill, by directing the feather to the most exact areas in the opponent's court.
3. The development of skill abilities is directly proportional to the accuracy of the skill of the badminton player's frontal area.

Recommendations

1. Emphasis on compatibility training in a multiplex drilling with changing performance determinants.
2. Emphasis on the necessity of the kinetic path of exercises, skills, and skills of the frontal area all in the same path.
3. Develop the special skills of each skill to reach the highest level of accuracy.

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