



ISSN: 2456-0057

IJPNPE 2022; 7(1): 494-498

© 2022 IJPNPE

www.journalofsports.com

Received: 16-02-2022

Accepted: 24-03-2022

Dr. Saif Abbas Jihad Al-Rubaye
Assistant Professor, College of
Physical Education and Sports
Sciences, University of Misan,
Iraq

Interactive speed exercises according to the competitive training circuit and its impact on the motor speed and accuracy of the back area skills of badminton players

Dr. Saif Abbas Jihad Al-Rubaye

Abstract

In the first chapter, the researcher talked about the importance of interactive speed exercises (saq) in the competition period for badminton players and their need for these exercises during the application of different skills, especially the skills of the back area of the stadium, and he also spoke about the research problem, during which the badminton players need to apply interactive speed exercises because they achieve upgrading most of their kinetic requirements, especially kinetic speed, and the similarity of training objectives between interactive speed exercises and the kinetic requirements of the badminton player, especially in the competition period. Experimental design Equivalent totals on (10) players representing the Maysan governorate team, they applied the exercises for (5) weeks, with three training units per week. Badminton is also reflected in this positive development on the accuracy of badminton skills, including the skills of the back area, and the researcher recommends the trainers to apply these exercises that work to raise the physical and skill level of badminton players.

Keywords: Interactive speed, skills, badminton players

Introduction

The nature of the badminton player's movement during the performance of badminton skills in general and the skills of the back area (dimension skill, projected skill) in particular, he must possess the ability of interactive speed at a very high and accurate level in order to be able to reach his performance to the degree of achievement by employing everything that is involved Under the term of the badminton player's interactive speed, which scholars go to classify as interactive agility or special agility, compatibility and motor speed, we note that the nature of the badminton player's movement during the implementation of the dimension or projection skill in their front and back forms and their offensive and defensive divisions, requires him to fast movement that enables him to perform such fast skills And a return to the middle area with short and few steps and high coordination between the movement of the legs and arms as well as with a high sense while directing the badminton to the most difficult point possible. Trainings should be in a focused form during the tactical training and in the semi-competition period or the so-called competitive training circles, which are training It is very important for the badminton player and takes a period of about five weeks within the annual period, which is the pre-competition period and the period before it from the end of the special preparation and this time from our point of view is sufficient to master the process of training tactics in an interactive speed style, so the importance of research lies in finding exercises that serve the fast movement of the badminton player And the shuttlecock, which is compatible and has a high sense of place and direction as well as within the tactical training, which is known as interactive speed exercises.

Research problem

The problem of the research lies in the extent to which it is necessary to train badminton players on such exercises that shorten time and combine more than one training goal between physical, kinetic and schematic. Drills are motor speed mixed with effective agility and the required compatibility for the badminton player is what is known as interactive speed and is applied during the semi-competition period and the end of the special preparation during the

Corresponding Author:

Dr. Saif Abbas Jihad Al-Rubaye
Assistant Professor, College of
Physical Education and Sports
Sciences, University of Misan,
Iraq

implementation of the skills of the back area, which are the skills of dimensions and projection of the front to the side and diagonally because they are the most used by the sample members as well from the point of view of The researcher has two important skills in individual play and must be professionally mastered by the players through their technique, which requires a combination of more than one motor ability in favor of the playing strategy such as coordination, agility and motor speed, all of which fall under what is known as interactive speed.

Research Objectives

The number of interactive speed exercises according to the competitive training circuit and its impact on the motor speed and accuracy of the skills of the back area of the badminton players.

Recognizing the effect of interactive speed exercises according to the competitive training circuit on the motor speed and accuracy of the skills of the back area of badminton players.

Research hypotheses

There is an effect of interactive speed exercises according to the competitive training circuit on the motor speed and accuracy of the back area skills of badminton players.

Research Areas

Spatial field: Olympic hall in Maysan International Stadium

Time range: 1/11/2021 to 30/12/2021

Human field: Missan Governorate badminton team players.

Research methodology and field procedures Research Methodology

Adopted the experimental method in the style of equal groups with two tests, the pre and post tests, by designing the control and experimental groups, and given that the experimental research is characterized by precision and control over the studied variables so that in some of them there is an intentional change and controls other variables, it is considered the only research method that explains the relationship between effect and cause in an accurate manner (Mohammed, 1999) [6].

Research Sample

The research sample was chosen by the intentional method that "is chosen freely on the basis that it achieves the purposes of the study carried out by the researcher" (Thuqan, 1988)

[10].

The research community is represented by the Maysan team players. The number of sample members is (10) players, distributed into two groups by a simple random lottery, to be (5) players in each group.

Means of collecting information, equipment used and research tools

Means of collecting information and equipment used

- Arab and foreign sources.
- Personal interviews with experts and specialists.
- Self-observation by the researcher.
- Data dump forms.
- Badminton court, rackets and feathers.
- Photography cameras.

Research Tools: Test and Measure

Field research procedures

Determining the research variables and their tests

The research variables and their tests were determined after they were presented and discussed with some specialists in the field of sports training and racket. The tests were as follows:

Kinetic speed tests

1. Testing the speed of the arm movement in the horizontal direction (Mohammed, 2001) [7].

The objective of the test: to measure the speed of the individual in bringing the player's arm closer and farther in the horizontal plane.

2. Testing the speed of the player's movement in the horizontal direction (Mohammed, 2001) [7].

The objective of the test: to measure the speed of the individual in bringing the man closer and farther away in the horizontal plane.

Tests of skill performance accuracy for back area skills (Wissam, 2012)

Front side dimensions skill test.

Diagonal forehand skill test.

Forehand side kick test.

The cat's forehand drop test.

Experimental Experiment

(Thuqan, 1988) [10], in order to obtain results and information necessary to benefit from them when conducting the main experiment, and on this basis the researcher conducted an exploratory experiment before The main experiment on players outside the research sample, on 1/11/2021 with the help of the work team.

Tribal tests

The researcher conducted tribal tests for the variables under study on the research sample before conducting the main experiment, where flexibility tests were conducted first and then offensive skills tests secondly on 11/15/2021. be influencing the results of the tests.

Homogeneity and parity between the two research groups

In order for the researcher to attribute the difference between the two experimental groups to the experimental workers, it is necessary that "the groups under study are equivalent in most of their conditions, except for the two experimental variables that affect the two experimental groups" (Thuqan, 1988) [10]. t-test for independent samples to extract the equivalence of the two groups, where the results indicate that the sample is homogeneous and the two groups are equivalent.

The main experience

Main experiment lasted (5) weeks, starting with the first training dose on November 20, 2021 until the last training dose on Thursday, December 25, 2021, during which the experimental group applied interactive speed exercises within the training and competitive department in the semi-competition period, and during the part The main for training the skills of dimensions and projections from the training unit, with three doses per week, and each dose contains four exercises, as these exercises develop the player's movement in a manner similar to competition conditions in terms of kinetic speed, agility and compatibility, in addition to that, this motor duty is within the playing strategies The number of these exercises in one training dose is (4) exercises, these

exercises are applied with maximum intensity and with repetitions ranging from (4) to (6) times, where the rest is complete between repetitions and between groups, and that the nature of the exercises applied by the group was the nature of the movement of the feet as paths for badminton players during the implementation of the skills of the back area, specifically the skills of dimensions and projection and work On the compatibility of the movement of the legs with the movement of the striking arm during the implementation of the skills, as these exercises are carried out at maximum speed and with the highest level of agility and coordination, and (8) exercises were used, which are skill sentences distributed over five weeks, with (3) training doses per week, each dose It contains (4) exercises where the first and second dose are eight exercises during and the third dose of each week four exercises are chosen from the first dose and from the second dose two exercises and so on and in a variety for the rest of the weeks to achieve the principle of repetition and diversity at the same time, as for the form of the exercises was All of them simulate the kinetic paths and technical stages of the two dimensions and projection skills by restricting the player to the correct technique by using signs, ladders and ground circles placed according to the movements of the players' legs and at different distances according to what is expected of the player's conditions so that there is no similarity in the exercise paths applied with a focus on interactive speed

during the implementation of these exercises, including It contains other kinetic abilities such as kinetic speed, coordination and interactive agility, and all exercises were applied inside the badminton court and in the performance areas. Harty dimensionality and projection.

Post-tests

After the main experiment was implemented and the exercises were completed on the experimental group, the researcher conducted the post tests on 12/26/2021, in a similar way to the tribal tests that were previously applied, and the data was collected in special forms to be processed statistically by the appropriate statistical laws.

Statistical means

Some rules from the statistical bag (spss) were used, as follows

- Arithmetic mean.
- standard deviation.
- skew modulus.
- The law of differences for related samples.
- The law of differences for related samples.

Presentation, analysis and discussion of the results

Presenting the results of the pre and post tests of the control group in the research variables, their analysis and discussion.

Table 1: It shows the arithmetic means, standard deviations, the calculated (t) value, and the level of significance and significance of the differences between the pre and post tests of the control group in the research variables

The exams variables search	Measruing unit	Tribal		after me		t. value calculated	Indication level	The significance of the differences
		s	p	s	p			
arm velocity	repeat/sec	35.33	1,87	35.00	1,65	5,22	0,00	moral
Kinetic speed of the legs	repeat/sec	25.17	1,90	27.31	1,72	5,12	0,00	moral
Forward side skill	Degree	9,34	1,08	10,50	1,03	4,18	0,00	moral
The skill of the diagonal front dimensions	Degree	8,75	1,12	9,50	1,22	4,30	0,00	moral
Side Forehand Kick	Degree	10,25	1,05	11	1,16	3,75	0,02	moral
Forehand Drop Kick	Degree	9	1,45	10,50	1,64	3,98	0,01	moral

at degree of freedom (4) and significance level less than or equal to (0.05).

By looking at Table (1), we find a remarkable positive development through the differences between the arithmetic mean values of the tribal and dimensional tests for all research variables and in favor of the post tests, as well as the values of the (T-Test) law calculated for the corresponding samples, whose significance levels for all variables came less than (0.05), which means that the differences are significant in favor of the post-tests.

The researcher attributes the significant differences that occurred between the tribal and remote tests of the control

group and in favor of the post test and for all variables, to the exercises applied by the control group in the motor speed and to the skills in the vocabulary of the training curriculum prepared by the coach, which is subject to the foundations and principles of sports training in developing the different abilities of badminton players.

Presentation, analysis and discussion of the results of the pre and post tests of the research variables for the experimental group

Table 2: It shows the arithmetic means, standard deviations, the calculated (t) value, and the level of significance and significance of the differences between the pre and post tests of the experimental group in the research variables

The exams	Measruing	Tribal		after me		t. value	Indication level	The significance of the
		s	p	s	p			
arm velocity	repeat/sec	34,20	1,60	37,50	1,44	4,85	0,00	moral
Kinetic speed of the legs	repeat/sec	27	1,27	30,25	1,32	4,50	0,00	moral
Forward side skill	Degree	10	0,90	12,75	0,75	5,43	0,00	moral
The skill of the diagonal front dimensions	Degree	9,75	0,77	12,25	0,87	4,90	0,00	moral
Side Forehand Kick	Degree	11	1,04	13,25	0,85	4,77	0,00	moral
Forehand Drop Kick	Degree	9,50	1,09	11,75	1,02	5,76	0,00	moral

Significant below significance level less than or equal to (0.05) at degree of freedom (4)

By looking at Table (2), we find a noticeable positive development through the differences between the values of

the arithmetic means for the tribal and remote tests for all search variables and in favor of the post tests, as well as the

values of the (T-Test) law calculated for the corresponding samples, whose significance levels for all variables came less than (0.05), which means that the differences are significant in favor of the post-tests.

The researcher attributes the significant differences between the tribal and remote tests of the experimental group in favor of the post test and for all variables, to the effectiveness of the interactive speed style exercises prepared by the researcher and applied by the experimental group, as well as to the effect of those exercises that serve the end of the special preparation period and semi-competitions (competitive training circles) As well as rationing the training load of these exercises in terms of intensity, size and intensity according to the correct scientific bases, as well as that the exercises applied were employed in a way that serves the skills of the back area in particular, and this is confirmed by (Walid Yahya Muhammad 2002) as well, "when he indicated that the use of well-designed programs and implemented in a way Lead to the development of physical performance, and this is one of the reasons for excellence in the field of sports" (Walid, 2002), as

the researcher agrees with (Sage), who mentioned " voluntary movement that requires a motor speed of the member whose movement is desired, as there is an urgent need for athletes to acquire fast, enabling them to Perform motor duties as required. Sage. 1984) [9].

The researcher also attributes the reason for the development of the experimental group to the interactive velocity exercises for the two skills of projection and dimensions of their types, as well as the proper guidance of the training vocabulary contained within those exercises with interactive agility, kinetic speed and competition-like movement within small competitive circles aimed at developing these two skills in a way that helps players perform them more. Simulation of playing conditions, and this is what the results showed in the above table

Presentation, analysis and discussion of the results of the post-tests of the research variables for the control and experimental groups

Table 3: Shows the arithmetic means, standard deviations, the calculated (t) value, the level of error, and the significance of the differences between the two post-tests for the two groups in the research variables

The exams	Measruing	Officer mug	Trial mug	t. value	Indication level		The significance of the	
arm velocity	repeat/sec	35,00	1,65	37,50	1,44	9,20	0,00	moral
Kinetic speed of the legs	repeat/sec	27.31	1,72	30,25	1,32	15,63	0,00	moral
Forward side skill	Degree	10,50	1,03	12,75	0,75	6,68	0,00	moral
The skill of the diagonal front dimensions	Degree	9,50	1,22	12,25	0,87	19,43	0,00	moral
Side Forehand Kick	Degree	11	1,16	13,25	0,85	6,78	0.00	moral
Forehand Drop Kick	Degree	10,50	1,64	11,75	1,02	4,86	0.00	moral

Significant below a significance level less than or equal to (0.05) at a degree of freedom (8)

By noting Table (3), we find a noticeable positive development For the research variables and in favor of the experimental group, through the differences between the values of the arithmetic means of the post-tests, as well as the values of the (T-Test) law calculated for the independent samples, whose significance levels were less than (0.05), which means that the differences are significant and in favor of the experimental group.

The researcher attributes the reasons for this to the careful selection of interactive speed exercises, which include motor speed and back zone skills, which sought to provide an adequate opportunity to develop them, and this is confirmed by (Mohsen and Naji, 1984) [5] that "the daily routine training unit must contain exercises that serve the goal in a way that precise". (Mohsen, 1984) [5].

The researcher attributes the reason for the development to the fact that the competitive circuits style included interactive speed exercises related to the accuracy of the dimensional skill and the skill of the dropped strike. (Essam, 1997) [30].

Therefore, the success of any method is achieved through Focusing on the followers of scientific methods that serve to establish this skill, as "many of the technical movements are not successful because of the weak requirements for them." (Patty, 1982) [8].

The researcher attributes this difference to the experimental group to the high level of special motor requirements (kinetic speed, agility, and compatibility) that led to the development of accuracy for the two dimensions and projection skills, as (Al-Tikriti and Al-Hajar, 1986) indicate that accuracy is positively affected by the development of other fitness elements. (Wadih, 1986) [11].

The researcher also attributes the reason for this development

to the effect of the interactive speed exercises used and their relationship to the development of special agility and the neural compatibility of the two skills through the movements included that focused on developing agility in the performance of the two skills. And (Abdul Aziz Ahmed and Nariman Al-Khatib, 1996) [1] refer to "the increase in the ability of muscles to contract at a faster rate when performing successive movements during special ability exercises." (Abdul-Aziz, 1996) [1] Elaine Wadih (1995) also asserts that the development of special physical abilities enables the athlete to perform the technical skill in the best possible way (Ellen, 1990).

Conclusions and recommendations

Conclusions

1. The interactive speed method has a positive effect on the motor speed of the badminton players if it is applied in a path similar to the motor path of the skill and at the highest speed it will have a positive effect on the accuracy of the skills performance of the badminton players.
2. The use of interactive speed exercises according to competitive training circuits serves badminton players in providing playing conditions similar to the conditions of competition.
3. Interactive speed exercises have a clear impact on developing the accuracy of the skill performance of the skill of the lateral and diagonal frontal dimensions as well as the skill of the lateral and diagonal frontal projections.

Recommendations

- Adopting the interactive speed exercises that were

applied by the sample and prepared scientifically to develop the kinetic speed and the two dimensions and projected skills in badminton.

- Following a mechanism to include competitive training circuits on such correct exercises based on the specifics of each skill that guarantees the players' physical and skill capabilities.
- Emphasis on the motor paths of skills while choosing the training method for the exercises applied as we approach the competition period.

References

1. Abdel Aziz Ahmed, Nariman Al-Khatib. Sports Training - Weight Training, Design and Planning of the Training Season, 1st Edition, Al-Kitab Center for Publishing, Cairo, 1996.
2. Elaine Wadih Farag, Volleyball. A guide for the teacher, coach and player. I 1: Alexandria, Manshaat Al-Maaref, 1990.
3. Essam Helmy, Mohamed Gaber. Sports Training: Foundations, Concepts and Directions, Mansha'at al-Maaref, Alexandria, 1997.
4. Medal of Salah Abdel Hussein; Badminton between practice and competition: (Dar Al-Radwan Publishing, Amman, 2012.
5. Mohsen Thamer, Naji Wathiq. In the Football League 99 Technical Problems, Baghdad, Arkan Edition, 1984.
6. Muhammad Hassan Allawi and Osama Kamel Ratib; Scientific Research, Physical Education and Sports Psychology; Cairo, Arab Thought House, 1999.
7. Muhammad Sobhi Hassanein. Measurement and Evaluation in Physical Education, Part 1, 4th Edition: (Dar Al-Fikr Al-Arabi, Cairo), 2001.
8. Patti, Arik. Modern Variables and Methods of Their Implementation in Football Training, 1st Edition, translated by (Walid Tabra), Baghdad, Dar Al-Qadisiyah Press for Printing, 1982.
9. Sage, GH Motor Learning and Control. wm. Cpublishers. 1984
10. Thouqan Obeidat (and others); Scientific research, its concept - its tools and methods: Amman, Dar Al-Fikr Al-Arabi for Publishing and Distribution, 1988.
11. Wadih Yassin, Yassin Taha Al-Hajjar. Physical Preparation for Women, Dar Al-Kutub for Printing and Publishing, University of Mosul, 1986.
12. Walid Yahya Muhammad. A suggested training program to develop the physical requirements of badminton players, unpublished master's thesis, Faculty of Physical Education for Boys, Helwan University, Cairo, 2002.