

The effect of compound exercises in developing front and back stroke skills and some physiological indicators of badminton juniors

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Abstract

The accuracy of the skillful performance of the front and back dimensions of badminton in volleyball, occurs through the investment of complex exercises (physical skills) in a single performance and its characteristics that give the correct movement behavior and speed to the accuracy of the performance of the strokes as well as the identification of changes in some physiological indicators of By using these compound exercises. The research problem lies: I found a weakness in the accuracy of the performance of the front and back dimensions strike and diagnosed this through the tests that it conducted on the players to identify and know the problem, and attributed this weakness to a weakness in the necessary physical and skill abilities and this affects the accuracy of directing the performance of the front and back dimensions strike and some physiological variables. sought the researcher to prepare exercises characterized by combining physical performance and skill in the performance of one compound, this method is not found in the training of players badminton after reviewing their training goal of the new provision and the advancement of the process of training in badminton, it used the researcher of the curriculum pilot where the research community The two junior badminton players, whose number is (10) player, the researcher concluded Of : The exercise complex prepared by the researcher developed swung the machete dimensions of the front and rear and some physiological indicators of the plane badminton experimental group better than the control group sample.

Keywords: compound exercises, front and back distancing, skills, physiological, indicators, badminton, juniors

Introduction

Research problem: The world is in a state of continuous development, and this is due to the development in the literature of training, as well as the level of ambition that still haunts the ideas of researchers and scholars to improve the level of performance and discover what is new, through the researcher's follow-up to the badminton competitions, I found weakness in the performance of the front dimensional strike And the background and diagnosed this through the tests that she conducted on the players to identify and know the problem, and attributed this weakness to a weakness in the necessary physical capabilities and skills, and this affects the accuracy of the performance of the front and back dimensions strike and some physiological variables, so the researcher sought to prepare exercises that are characterized by a combination of physical and skill performance in A single composite performance, and this method is not found in the training of badminton players after seeing their training, the purpose is to introduce new and advance the training process in the game of badminton.

Literature review

This game receives a great interest among specialists in the field of physical education and by seeking to gain access to advanced mathematical levels by selecting players with a multi - sport talents and early age to build a mathematical base and wide in the game of badminton, and is one of the sports individual games that feature conservatively In performance, as the nature of the game is characterized by continuous movement and jumping for a long period of time and dealing with various different resistances from badminton and the racket in addition to the skills of the game, and is characterized by the diversity of its movements according to the requirements of the various basic defensive and offensive skills of its own and thus depends on what the player enjoys physical and skill and major tactical and psychological capabilities to achieve better results and that the training exercises the vehicle has the importance of the strengthening of the arms muscles and

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because the performance strikes maximum muscle strain needs a large muscle contraction and that these exercises is one of the requirements necessary for the players of badminton, where I headed the researcher attention exercises the vehicle that gives The correct kinematic behavior of the ball paths, and thus the required accuracy in falling the ball with the speed of performance and this is reflected in Performance skills to hit the T - dimensional front and rear in badminton, through investment exercises vehicle (physical skill) in one performance and the characteristics of the properties are working on giving the correct kinetic disposition and speed accuracy performance of the strikes, as well as identify changes in some indicators as a result of the use of these compound exercises among the beginners of badminton .

Methodology

Design of T follicular: The researcher used the experimental approach to the suitability of the special nature of the problem looks "who cares to explain the reality of accidents and the report of the realities of present analysis and evaluation for the purpose of the development of important conclusions to correct this reality or update or the development of new knowledge by (Djublik, 1984)

Research community and sample: The sample search players emerging in the game of badminton in Baghdad's (10) players were selected purposively, and then conducted a researcher for the purpose of make sure the homogeneity of the sample individuals search test was used coefficient of torsion between height and weight variables, age, time and age training has been shown that the values of The correlation coefficient is confined (+1), and this means that the sample is homogeneous, as shown in Table No. (1).

Table (1) the homogeneity of the research sample is shown by testing the coefficient of torsion in some variables

Variables	measuring unit	Arithmetic mean	deviation	Mediator	skewers
Age	Year	16.28	0.48	16.00	1.24
Length	cm	164.43	1.51	165.00	0.62
the weight	Kg	65.71	0.76	66.00	0.96
Age of training	Year	7.6	7		

Field research procedures: -

Determine search variables: Independent variable: compound exercises.

Dependent variables: the front and rear dimensional stroke skills of the badminton and some physiological indicators.

Tests used in the research: First: The front dimensional strike test (Wissam, 2013) second: Dimensional backhand strike (Wissam, 2013)

Physiological tests: were performed by drawing blood: First: s. Bilirubin (<https://www.mayoclinic.org/en/tests>) Secondly: S. blood sugar. Third: s. Cl.

Conducting pilot experiments: The researcher of conduct housewife exploratory, since the experiment was conducted exploratory tests for skill and physiological on a sample consisting of 3 players as possible junior did not participate in the main experiment on the corresponding (11/04/2019) and then re - test on Monday (11/11 / 2019).

Conducting pre-tests: She conducted the pre-tests for the research sample and was conducted for two days on Friday (22/11/2019) in the inner hall of Al-Athuri Club, and then performed the physiological tests on Saturday (11/23/2019) in a laboratory across the top by performing a blood drawing of the research sample, The conditions for testing have been taken into account from the place, time, tools, method of implementation and those in charge of them, and all conditions for this application will be installed on the research sample from the experimental and control groups .

Key Experience: Complex Exercises: After preparing the combined exercises attached in (Appendix 1), which included (skill and physical exercises carried out at high speed) in the same exercise, the combined exercises aim to develop front and rear dimensional strikes, as well as to identify some changes in some physiological indicators of badminton players, was to start working with the implementation of the two groups and by three units per week in the days (Friday, Saturday and Monday) every week, over 8 weeks and by two months. The total of training units reached (24) training units, compound exercises are carried out at the beginning of the main section of the training unit immediately after the warm-up, with a time of 15-20 minutes, and by adopting the principle of gradual and wave between exercises and between units and training weeks, and the exchange in the work of muscle groups between exercise And another, the researcher did not interfere in the remaining parts and sections of the training unit, and the researcher applied her exercises on the experimental group in the first part of the main section, while the control group applied the curriculum prepared by the trainer, and the complex exercises were carried out using the method of high-intensity interval training, with a time ranging from 10-15 second for each repeat up duplicates of (4-5) in each group, complete and comfort between aggregates any work period to rest (3:1) .

Dimensional tests: After completing the implementation of the main experiment, the researcher conducted the post tests on the experimental and control research samples after warming up the individuals of the two research samples, and all temporal and spatial conditions were fixed for the purpose of unifying them with the pre-tests.

Presentation, analysis and discussion of the results of the first goal:

Table (2) shows the statistical parameters to find the differences between the tests - tribal experimental group in a no test data skills and some physiological indicators

Variables	Measurement	Tribal		after me		T	indication
		s-	P	s-	P		
Front Elimination Strike	Point	12,2	5,39	30,33	3,75	14,53	moral
Backward pushback	Point	8,54	4,44	24,54	4,71	13,65	moral
s. Bilirubin	Mg \ dl	0,7	0,2	1,0	0,1	-7,3	moral
S. blood sugar	Mg \ dl	84,7	4,9	85,2	4,4	-1,0	moral
s. Cl.	Mg \ dl	71,7	6,9	89,0	9,0	-6,2	moral

Significant at the level of significance $\leq (0.05)$

Table (3) shows the statistical parameters to find the differences between the tests tribal - of the control group in a no test data skills and some physiological indicators

Variables	Alone Measurement	Tribal		after me		T	indication
		s-	P	s-	P		
Front Elimination Strike	Point	8,97	6,8	25,3	8,16	7,59	moral
Backward pushback	Point	10,3	3,56	18,32	5,24	5,54	moral
s. Bilirubin	Mg \ dl	1,05	0,46	1,3	0,4	-11,0	moral
S. blood sugar	Mg \ dl	91,5	5,8	96,5	5,6	-2,2	moral
s. Cl.	Mg \ dl	75,7	4,9	88,0	1,4	-6,3	moral

Significant at the level of significance $\leq (0.05)$

Results

The researcher attributes of according results table (2) and (3) The exercises used by the researcher had a prominent role in making clear developments in the front and rear dimensional stroke skills, and this was confirmed by (Al-Basati, 1999) where he indicated that (sports training of all kinds aims to improve the physical, psychological and mental abilities of the individual through practicing Effectiveness of the activity) (Al-Basati, 1998). (Hammad, 2001) Muscular strength is considered to be the basis upon which the individual reaches the highest ranks of the sporting championship, as it greatly affects the development of some physical characteristics such as speed, endurance and agility, especially for the types of sports activities in which the use of force is linked to some of the previous physical characteristics (Mufti, 2001) Modern training process is based on a sound scientific basis has become the difference between the old and modern training and training, (Hussein, 1989) that the training method is "The planned communication system for the positive interaction between the trainer and the player during the training unit. The method of training is that "the applied and organized procedure for the selected exercises within the training unit in light of specific values of the training load wave," the requirements that must be. And that the combined (combined) exercises worked to develop the physical characteristics through the kinetics of the practicing activity, and here it is necessary to differentiate between a single physical preparation that can connect the athlete to a high level, and a special preparation for specialized sports that can develop the features of the type of activity, the integration of the activity is the ability to train In the presence of opposition and also in pairs, and in this type of training we integrate the movement of specialized activity with increasing the technical dimensions of the player, and this method gives the player a great richness in his technical contents, and we note in this type of training that it is used during the preparation for the competition with special classes so that the exercises are close In form and position to compete. (Laila, 1997) The development and change was in the physiological indicators that were noticeable in the experimental group than in the control group, as well as in the skills of the front and back dimensions of the young feather.

Conclusions

- 1- The exercise complex prepared by the researcher developed hit the T - dimensional front and rear of the plane badminton experimental group better than the control group sample.
- 2- The compound exercises prepared by the researcher developed some physiological variables among the beginners of the badminton experimental group better than the control group sample.
- 3- The combined exercises prepared by the researcher stimulated the sample to perform in an interesting and competitive manner. The sample members showed their willingness and desire to train without feeling tired or bored.
- 4- Taking the results of this study and circulating it, and emphasizing on equipping the playgrounds with modern training methods, because of its positive impact on physical development.
- 5- Investing in compound exercises prepared by the researcher in developing other motor, physical and mental abilities in the game of badminton.

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Appendix No. (1)

Some of the forms of combined exercise

- T 1: holding the racket player with hands and then begins to hit the exchange frequencies of double - sided front and back with walking distance of 10 PM.
- T2: The player holds the striking hand with the correct fist and when instructed by the coach, the player begins making frequencies on the front and back sides in succession by passing between the cones at a distance of 10 m.
- T3: The player stands in front of the points drawn on the ground (*Zakzak*) and when instructed by the coach, the player begins to walk towards these goals (points) that are drawn on the ground and make successive frequencies with the striking arm on the front and back sides at a distance of 10 meters.
- T. 4 : Both players stand in stadium in half and when instruct by coach players begin to perform the skill of a blow - dimensional front or back for 30 seconds with no attempt to play the ball out at the stadium .
- T. 5: stand the player facing the wall and at a distance of 1 meter and the performance of 20 forehand or background.
- T. 6: first player stands facing the stadium and when referring colleague starts by throwing balls to the player colleague to start the player first stroke dimensions forehand 20 times.

- T 7 : the first player stands facing the stadium and when referring colleague starts by throwing balls to a teammate to start the player first stroke dimensions of the background of 20 times.