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Special exercises for numerical shortage in playing centers to develop some physical abilities of youth basketball players

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Abstract

The importance of researching exercises for numerical deficiency according to the centers of playing in basketball, and its effect on developing some physical abilities of young basketball players, the game of basketball is like any important team game that has its basic principles that it has become necessary to strive to find the best methods. Training to overcome the situations that occur during the match, especially the numerical shortage (leaving a player due to injury, committing a mistake, fatigue, nervous tension and even an offensive or defensive tactical change or both) that occurs during play due to the exclusion or change of players and the absence of substitute players (the same The playing center has the same level and performance, physical fitness, experience, training age, height, speed, skill in defense, attack, and individual and collective tactics). Therefore, the researcher used exercises related to numerical deficiency and its effect on the development of some physical abilities of youth basketball players.

The researcher used the experimental method for its suitability and the nature of the research. The research sample consisted of the Armenian Youth Sports Club, whose number is (12) players.

The researcher concluded that the exercises for the normal deficiency had an effective effect in developing the speed of response and the strength characteristic of the speed by adapting the exercises to the age and training phase of the research sample.

Key words: *numerical shortage in playing centers.*

I. Introduction

1.1 Introduction and Importance of Research:

The training process is of great importance in the upbringing of generations in a good and sound manner at various stages of life, so researchers and thinkers have always studied this field comprehensively and in depth to

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arrive at the best training methods that help those in charge of the training in implementing the training curricula to the fullest and reaching an effective training.

The methods of training are many and varied, and each method has a special philosophy that is based on its sincerity and consistency in the field of application and on the age, gender and level of players for other exciting reasons, and that these methods share one goal, which is caring for the player from both the physical and skill aspects.

The process of training in basketball is a systematically planned process for the integration of the athlete and its goal to reach the ideal performance, preparing the player and the team to achieve the best level. Therefore, it requires the trainer to have sufficient knowledge of the specificity of training and good planning for the correct training loads based on the accurate scientific method, as well as the selection and use of appropriate, effective and effective methods and methods, and that the use of special exercises in training prompts the player to make the largest amount of physical effort possible for development.

The numerical shortage is one of the important variables in the basketball game where the numerical shortage occurs with the exit of one or more players from the team for more than one reason (the five mistakes, fatigue and low level of fitness, group or individual tactics, need a better striker, a better defender, need a fast player. A tall player, a scorer player from afar, a player who steals balls, a player who cuts the basket and most importantly an experienced player or a leading player in the team who works as a coach on the field etc ...), and the absence of substitute players of the same level and performance or for the reasons mentioned.

The state of numerical shortage in the team gives the opposing team an advantage in the number of players

Allow him to apply defensive moves to help him cut balls or offensively to help him with

Scoring points, and that case requires players to increase the effort to compensate

The shortage of the team and quickly fill the gaps, and the coach should think about developing

The strength is characterized by speed and kinetic velocity in particular for the large frequency of reciprocating movements between defense and attack for players through training units and special training for those abilities

1-2 research problem

Any weakness suffered by any team in basketball or in any game is a problem for coaches, as the coach must work to eliminate this weakness and even turn it into a point of strength for his team and through the experience of the field researcher as one of the former players and a current coach and a teacher of basketball For more than (15) years, in addition to his continuous follow-up to the youth league matches with basketball, he noticed the weakness in some physical abilities such as the strength distinguished by speed and speed of movement, which reflected negatively on the state of numerical shortage due to the penalties imposed on the player during the game period. Some solutions to this problem by numbers of special exercises in order to control the deficiency in the

physical abilities under discussion, which is reflected positively on the case of the numerical shortage that occurs during the period of the match.

1-3 search targets

1- Preparing exercises for numerical deficiency and their effect on developing some physical abilities of youth basketball players.

2- Knowing the use of exercises related to numerical deficiency and their effect on developing some physical abilities of youth basketball players.

1-4 Imposing research:

1- There are statistically significant differences between the results of the pre and post tests for strength tests characterized by velocity and speed of the kinematic response of individuals of the research sample.

1-5 Research areas:

1-5-1 The human field: players of the Armenian Youth Sports Club.

1-5-2 Time Domain: 2/21/2019 - 25/4/2019.

1-5-3 Spatial field: the inner hall of the Armenian Sports Club.

II. Research methodology and field procedures

2-1 Research Methodology:

The researcher used the experimental method according to the design of the individual experimental group of pre and post test, i.e. measuring one group before and after the experiment, in order to suit the nature of the problem, which the experimental variable affects on them, as it is (an attempt to control all the basic factors affecting an experiment except for one factor and one that the researcher controls and changes him to A specific approach with the intention of identifying and measuring its effect on the variable or dependent variables (9: 286)

2-2 Research Sample:

The research sample was selected from the Armenian Youth Sports Club (12) players by the deliberate method of one experimental group, and the reason for the deliberate selection of the research sample was based on the availability of material and human capabilities from the sample to achieve the purposes of the study and ease of contact with it, and a place for training that allows conducting research tests The location of the test was also available, and anthropometric measurements were homogenized for them.

Descriptive Statistics

	N	Sum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
طول	8	1392.00	174.0000	2.13809	-.818-	.752
وزن	8	505.00	63.1250	2.03101	-.224-	.752
عمر	8	142.00	17.7500	.46291	-1.440-	.752
Valid N (listwise)	8					

Table (1) shows the values of the skew coefficient are all confined to (± 1), which indicates the uniformity of the research sample distribution, which achieves the homogeneity of the research sample in all the variables under investigation.

2-3 Means of gathering information

2-3-1 The tools, means and devices used in the research

• Tests and benchmarks.

• Data collection forms, measurements, and test results.

Observation and experimentation.

• Training curriculum.

• Arab and foreign sources.

2-3-2 Search devices used

Electronic Personal Scale (KH-2003 A), Chinese made, with a weight of (150 kg) and a measuring unit (kg and its parts).

• An electronic stopwatch (Sport Timer) with a unit measurement (1/100 second).

• A metal tape measure to measure length, in meters and its parts.

• 12 legal basketballs by Molten.

• Plastic signs, count (8).

• Legal basketball court.

2-4 Research Tests

2-4-1 Partridge Test for Maximum Distance in 10 Seconds (2:28)

Test name: Partridge for maximum distance in (10) seconds

The purpose of the test: to measure the force characteristic of velocity of the two men.

Tools: basketball court, stopwatch, whistle and tape measure.

Performance description:

- The player stands behind the starting line, and upon hearing the whistle, he swoops on one of the two legs to travel the longest possible distance within (10) seconds.

- Two attempts are given to each player and the best of them are taken, as shown in Figure (1).

Ensure that the other leg does not touch the ground while performing the test.

Recording: The distance traveled is measured with a tape measure and to the nearest meter and its parts.

2-4-2 Nelson's Kinetic Response Test (6: 436)

The purpose of the test: to measure the ability to respond and move quickly according to the test of the stimulus.

Performance specifications: The test area is planned with three lines, the distance between each line (6.40) m and the line length (1)

- The player stands at one end of the middle line facing the referee who is standing at - the end of the other side - the player takes a ready position so that the midline between the feet and the body bends forward slightly

The referee holds the stopwatch in one hand, raises it to the top, and then quickly moves his new arm

Lest left or right and at the same time running the clock. The player responds to the start signal and tries to run as fast as possible in the specified direction to reach the side line that is 6 km away from the center line.

. 40 m. When a player crosses the right side line the referee stops the clock. - If the player starts running in the opposite direction, the referee continues to run the clock until the player changes direction and reaches the side line. The laboratory gives (10) consecutive attempts between each attempt (20) seconds, with (5) attempts On each side.

Scoring method: The time for each attempt is calculated - the laboratory score is the average of the ten attempts.

2-5 The exploratory experiment:

The exploratory experiment is one of the most important and necessary procedures in order to identify the precise scientific weight of the tests nominated for work, and to avoid errors and obstacles that may face the researcher when implementing the main experiment (7: 217).

The researcher conducted an exploratory experiment on Thursday 21/2/2019 on a sample of (4) housing club players for the purpose of training the assistant work team who carried out the training and to overcome the difficulties and obstacles that may face them, and to know the time required to conduct the research tests.

2-6 pretest:

The researcher conducted the pre-tests in the indoor hall of the Armenian Sports Club at 9 am on Monday 25/2/2019.

2-7 apply exercises:

Special exercises: The researcher prepared special exercises and applied them to the research sample, and the exercise continued for (8) weeks. The exercises were applied in the main section of the training unit (the training curriculum and the training unit of the trainer's competence, we did not interfere with its vocabulary) and the exercise vocabulary was as follows:

• The duration of the exercise is (8) weeks.

• Total number of units: (16) units.

• Number of units per week: (2) units.

• intensity used: 75% - 90%. (Through the equation for pulse oximetry (220- age))

Weekly training days: (Saturday, Tuesday)

2-8 dimensional tests:

• After applying the teaching units, the post tests were conducted for the research sample on Monday (25/4/2019).

• The post-tests of the research sample were conducted under the same conditions as the pre-tests in terms of time, tools and place of testing.

2-9: Statistical methods:

The researcher used the statistical bag system (spss) in processing the research results to extract the values of the arithmetic mean, standard deviation, median, the value of the coefficient of skewness and (T) test for correlated samples.

III. Presentation and discussion of results:

3-1 Presentation and discussion of the results of the pre and post tests of the experimental group in the research variables.

3-1-1 Presentation of the arithmetic means, standard deviations before and after, the calculated and tabular (T) value of the two-legged force tests and the kinematic response velocity.

sig	Deviation of the differences	Average differences	post		pre		test
			Std. Deviation	Mean	Std. Deviati	Mean	
0.00	**2.02073**	**-9.58333**	**1.13818**	**46.2500**	**1.4974**	**36.6667**	The power of two men's speed
0.00	**.37661**	**.71833**	**.13790**	**1.5917**	**.32488**	**2.3100**	Kinematic response speed

(N = 12) Degree of freedom = n -1 = (11) Significance level (0.05)

3-2 Discussion of the results:

It is evident from Table (2) that all the values and all the research variables were of statistical significance between the results of the pre and post measurements and in favor of the post measurement. The various variables if they are built according to the scientific foundations in the construction and organization of the training process and the formation of loads through the appropriate stresses, and this is in agreement with Muhammad Othman, where he indicated that "the trainer must be able to succeed in setting exercises that take into account the size and intensity of the load used and the extent of its suitability to the abilities and capabilities The players are in harmony with their sports specialties and the physical characteristics to be developed, which leads to an increase in their level of achievement (8:46).

The researcher also adds that special exercises had a positive role in developing some physical qualities through fast and strong work in competition. Thus, this method was able to work on adapting the player to these competitions whose performance time is short but tired, and this is what Essam Helmy and Muhammad Jaber indicated The increasing level of performance in short competitions is the body's ability to supply energy for a short period of time without using large amounts of oxygen as per the concept of anaerobic energy system (1: 209).

It should be noted that the nature of the exercises, which was characterized by the speed of performance, which accompanied the numerical deficiency, led to a homogeneous development in the attributes of strength and speed through training in a way that serves basketball effectiveness. Basketball and when developing strength, this speed can be developed by coaches (5:51). We must point out the significant improvement in the muscle groups of the lower extremities for a direct and directed effect through distinct strength exercises for the two legs (95) On giving muscle strength exercises to develop special strength to strengthen the necessary muscle groups that a player needs, and to reflect on the numerical deficiency in the game.

In addition to that, the researcher sees this improvement to intensive training through planting exercises throughout the curriculum, which had a peculiarity in training the lower section of the player through exercises and

the nature of effectiveness will lead to the development of the two characteristics of strength characterized by velocity and speed of movement through strength exercises characterized by velocity and numerical deficiency that were carried out The research group, and as a result of the positive progress that occurred for these two characteristics and their positive correlation with basketball skills, and this is what both (Al-Hajiya) and (Al-Hayali) indicated (4: 103) that a moral development occurred in the skill of long passing due to the development that occurred in my class The explosive force and the velocity of the leg muscles.

IV. Conclusion:

The researcher reached several conclusions, the most important of which are:

1- Special exercises caused a significant development in physical abilities by comparing results of pre and post tests, and they were in favor of post-tests.

2-The exercises for the normal deficiency had a very large and effective effect in developing the speed of response and the strength characteristic of speed by adapting the exercises to the age and training phase of the research sample.

3 - The similarity of exercises with real playing situations contributed to the increase in the players 'impulse towards performance, and that this development in the speed of response and the distinctive strength of speed led to an increase in the performance level of some of the players' skills.

V. Recommendations

1. Emphasis on training with special exercises to develop all abilities, including physical abilities.

2. Emphasis on training with exercises commensurate with the specificity of the event.

3. The necessity to take into account specialization when placing exercises in the training curriculum.

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