



The impact of varying style training (within repetition) on the development of muscle ability and some of the basic skills of young basketball players

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1- Introducing research

The development in the basketball game at the level of skill and physical performance was the result of going into modern and advanced training methods aimed at accelerating the process of development and upgrading the general level of the player.

Contrasting training is one of the modern methods used to develop the physical qualities of the player through height and decrease in the level of training intensity and lack of regularity of training at the same pace and depends on it in the development of muscle strength in particular, as the philosophy of this method lies in the heterogeneity and difference in the pace of training between high and low in different forms, and this method can be used training in three forms the first is within the training unit by differing strictly for training groups by going up and down strongly each The second is the variation within the same training group through the ascent and landing of each of the repetitions of the same group, which is stated by Hussein al-Ali and Amer Fakher Shagati that the different training method through which "maximum effectiveness can be achieved by using force in different or opposite ways, during the training unit, or within the exercise group", and type The third is within the single repetition, i.e. the performance in this type is by varying intensity within the repetition itself, i.e. the amount of intensity or resistance changes during the transition between the central movement and the decentralization of the motor path of exercise, "and since the athlete leading to the central movement is more able to take out the force as the central movement approaches its end, i.e. when performing the exercise in this way the amount of resistance that the working muscles work against increases as the motor path of the central movement progresses from the end of the center movement. "Hossam Mohammed Haydan: 70), this work is achieved through the use of rubber ropes or heated weightlifting hooks and other training tools.

One of the requirements of performance in the basketball game is the ability of the player to keep up with the variables of skill performance during the competition and this requires a great physical effort falls on the player, because the nature of the game is characterized by speed and strength of performance in the performance of skill sentences within the competition as well as the rapid transition between attack and defense, and the follower of youth games draws his attention to the presence of a decrease in the level of skill performance during the third

⁽¹⁾ Hussein Ali al-Ali and Amer Fakher Shagati; Strategies for sports training methods and methods(Baghdad, Al-Nour Printing and Reproduction Office, 2010) p. 88.

and fourth quarter of the game and this calls for stopping this problem because the young player needs To build proper physical abilities, especially the rapid strength, which is one of the most important physical qualities of the basketball player, the research aims to identify the effect of the different training style within the repetition in the muscle ability represented by the explosive power and characterized by the speed of young basketball players.

2. Research methodology and field procedures

2.1 Research approach

The researcher used the experimental approach by designing the same group to suit it and the problem and objectives of the research.

2.2 Search sample:

The research sample was represented by the 16 players selected in Diyala' training team, 4 players were excluded for irregular training units, the number of sample members (12) players, and table (1) shows the homogeneity of the sample in the search variables.

Table1
Sample homogeneity in search variables

to	Variables	unit scaling	Arithmetic medium	Broker	Deviation Normative	coefficient Convolution
1	Explosive force of the arms	meter	8	8	0.953	0.755
2	The explosive power of the two men.	poison	26.83	26.5	1.8	0.185
3	The power of speed of the arms	reiteration	7.983	8.05	0.548	0.095
4	The power of speed for the two men.	Tha	33.66	34	1.57	0.180
5	Handling	reiteration	7	7	0.738	0.00
6	Correction	degree	8.75	8.82	0.525	0.274

2.3 Methods of collecting information, devices and tools used in research

- Arab and foreign sources
- Physical and laboratory tests
- Legal basketballs
- Basketball court
- Rubber ropes and sando straps
- Tabi scale

2.4 Identifying the basic skills under consideration:

The basic skills of this research were identified by looking at sources and references indicating that the performance of these skills is influenced by the muscular ability of explosive strength and distinctive strength at speed, accordingly the researcher adopted the skills that come, handling, receiving and correction.

2.4.1 Identifying search tests:

Tests of basic skills and muscle ability represented by explosive and rapidly distinct strength were determined by analyzing the content of previous studies and the most commonly used in the Iraqi environment:

Skill tests:

First: Test the recoil wall of The Lylston. (Louay Ghanem Al-Sumaidai et al.:314)

Second: Front shot test (60th). (Louay Ghanem Al-Sumaidai and others 316)

Physical tests:

First: Throw the medical ball weighing 3 kg over the head to the maximum distance to measure the explosive strength of the muscles of the arms (Sayyid Abdul Maksoud, 257 , 1997).

Second: Vertical jumping (Sargent) to measure the explosive strength of the muscles of the two men (Mohamed Hassan and Nasreddine 84, 202).

Third: Front-base propulsion test for (10 seconds) to measure the speed-defining strength of the arm muscles (Laith Ibrahim, 90,2008).

Fourth: Partridge test on one leg 30 m to measure the characteristic strength of the muscles of the legs (Haval, 104, 2004).

2.5 The main experience:

2.5.1 Pre- tests:

Pre- tests were conducted on the members of the search sample on Thursday, July 29, 2021, at the Hall of the Directorate of Youth and Sports/Baquba, at 10:00 a.m. , and data were recorded in special forms and the conditions for testing were confirmed to be applied in post- tests.

2.5.2 The main experience:

The vocabulary of the disparate training curriculum (within repetition) was introduced to the search sample members on Sunday, August 1, 2021 at 4:00 p.m., according to:

- The curriculum included 24 training units, with an average of three training units per week, so the training period was (8) weeks.
- The researcher's work was limited to the physical part of the training unit at a rate of (30-35) minutes per unit, and the total time of the varying training curriculum (within repetition) (896) minutes, divided equally to be the training time of the muscle capacity of the arms (448) minutes and the same for the muscular ability of the two men.
- The researcher adopted the method of high and low intensity fitri training in the application of the vocabulary of the training curriculum in the training units.
- Ripple of internal pregnancy (1-1).
- Ripple of external pregnancy(1-3).
- The induction relied on the pulse rate (carvonin equation) to extract the training intensity.
- The ropes and rubber bands used in the search are constant, so the intensity is increased by increasing the performance time of the single repeat.
- The number of iterations is appropriate for the player's ability to perform iterations without any decrease in performance speed according to the required intensity.
- Inter-workout comfort ranges from (30-90) seconds at a rate of (1-2) to comfort between totals (60-120) seconds.

2.5.3 Post- tests:

The post- tests were applied to the members of the search sample on Sunday , 29/8/ 2021, at 10:00 a.m., emphasizing that the same conditions were as stable as possible in pre- tests.

2.6 Statistical means:

The researcher used spss to extract the results of the research using the following statistical means:

Computational medium, standard deviation, median, twisting factor, error ratio, test (t) of associated samples

Presentation, analysis and discussion of results:

3.1 View and discuss the results of search variable tests:

Table (2)

Mathematical circles, standard deviations, differences and deviations of circles and the value calculated for pre- and post- tests of research variables

Variables		Pre-Test		Post-Test		S.F.	P	T value		Significance
		Q	±	Q	±			Calculated	Error rate	
Explosive force	For the arms.	8	0.95	10	1.34	2	1.04	6.63	0.00	Moral
	For both men.	26.83	1.8	31.41	2.9	4.58	0.37	11.51	0.00	Moral
The power of speed	For the arms.	7.98	0.54	8.67	0.51	0.69	0.29	8.15	0.00	Moral
	For both men.	33.66	1.57	37.06	1.67	3.41	0.82	14.41	0.00	Moral
Handling		7	0.73	9.08	0.79	2.08	0.51	14.01	0.00	Moral
Correction		8.75	0.52	7.87	0.47	0.87	0.29	10.43	0.0	Moral

Table (2) shows the statistical results of the pre- and post- measurements of the research variables of the experimental group, which show moral differences between pre- and post- tests.

The researcher attributes these scalps to the effectiveness of the exercises in the different training method (within repetition) which helped to develop the muscle capacity represented by explosive force and the strength characterized by the speed of the muscles of the arms and legs, as the change in the variable intensity used in the exercise, which works gradually up to the highest intensity when the movement is central and begins to decrease gradually until returning to the initial position of exercise, and this method "It solves the problem of the need to slow down the central movement of exercise during at least the last third of its motor range in order to avoid a shock to the bone composition of the joints of the body involved in the performance of the movement, which can occur when performing traditional power exercises with weights if the central movement of the exercise continues to accelerate to the end" (Hossam Mohammed Haydan:70).

This method also distributes the effort exerted during a single exercise and utilizes it in the shedding of the intensity in a way that allows the muscle to work more quickly and appropriately accelerate, which helps to generate muscle strength at high speed, and here is the highlighting of the intensity of the central contraction and its focus on the muscles working in this contraction and start reducing intensity whenever constriction becomes

decentralized i.e. in the case of relaxation of the working muscles, and this led to the speed of exercise performance "If there is no delay between decentralized contraction and central contraction (default), the amount of work done under this condition is translated into a flexible muscle-edited card during stretching," explains Crisley Crossly.

The nature of the training methods and tools trained in this training method, such as ropes and rubber bands, has had an effective effect in developing the muscle capacity of the muscles of the legs and arms of the members of the research sample, as these training methods give a variable intensity during their use in the exercise as these training methods are characterized by the fact that they generate resistance that increases their degree as they become more consistent during the central movement of the exercise, and this requires increasing the severity of muscle contraction against this resistance continuously throughout the course of The motor range of exercise until the completion of the movement, thus realizing the neural effects of the working muscles more effectively at all points of the motor path of the central movement of the exercise, because "the more the individual becomes able to take out the force, the closer the central movement comes to an end, the higher the level of resistance faced by the working muscles as the central movement approaches its end" (Ahmed Helmy, 2015).

The development in the skills of handling and shooting basketball is the result of the development in the muscle capacity of the members of the research sample, as the player's possession of physical abilities specific to the effectiveness of practice will reflect positively on the performance of the skills of this effectiveness.

Conclusion:

After the findings of the research we conclude that the method of training varied within repetition has contributed to the development of the muscle capacity represented by explosive power and the distinctive strength of speed and this has positively reflected the skills under research in the members of the research sample, and the researcher recommends the use of this training method because of its significant impact on the special muscle strength of basketball players and the use of tapes and rubber ropes.

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