

The impact of Fartlak exercises to develop speed Endurance With basketball

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Abstract

The aim of the study lies in knowing the effect of Codified Fartlek training on developing speed endurance. Whereas the significance illustrated that the speed endurance ability is a compound ability between speed and endurance. In these two the player exerts a physical effort with tension and for a fairly long time hence resisting all signs of exhaustion.

In order to develop this ability, the Fartlek training By Holmer Style approach was used because its performance system is similar to performance. This approach is represented by running with changing speeds and for changing distances, then having a rest interval between walk and sprinting. This has been proper to the recent changes in basketball law.

The hypothesis of the study is represented by finding out the differences in developing the speed endurance by Fartlek training (Holmer Style And Shaker Codified) in both the pre and post-tests and in favor of the post-test.

The sample comprises Diyala Club Young basketballers aging (14-16 years). The sample amounted to (16) players who were divided into two groups, experimental and control. The study was carried out on the outdoor court of Al Khark Sports Club and the indoor court of the College of Physical Education/ University of Baghdad from 19.6.2019 to 24.8.2019 .

The speed endurance test was designed by experts and included 300m run. The researcher used the experimental method on the two equivalent groups as it suited the nature of the study. He also used the proper statistical means to analyze the results.

Throughout the presentation and the analysis of the study results, the researcher has found significant differences in favor of the experimental group in the speed endurance test.

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The most important conclusions revealed that developing the speed endurance by means of the Fartlek method has a great effect in improving the player's ability and their acquiring of a good physical ability to resist exhaustion and to continue performing in high efficiency.

The most significant recommendations fall in choosing the proper training methods and the physical characteristics suitable for the type of the game. Besides, this can be applied to other games such as football and handball.

Keywords : *Fartlak exercises , speed Endurance*

I. Introduction

Basketball is one of the difference games that require privacy in its training, especially after the recent adjustments in its performance system. This game requires a speedy performance by players in Endurance out attacks and returns faster for the purpose of defense. It also requires the rapid movement of players from one place to another over four periods of ten minutes each.

On this basis, this game needs to develop physical abilities appropriate to the normal performance of it, so that we make the player able to perform the four periods with high efficiency and fatigue resistance, maintaining the speed of his performance with extreme intensity and under maximum throughout the period of the break.

So the combined physical ability (bearing the speed) that consists of two capabilities which are the speed and the endurance is one of the most important physical capabilities of this game as well as the rest of the capabilities, in which the player exerts a physical effort heavily for a long period of time resisting the signs of fatigue, so you know that it is "the individual's ability to maintain speed In the conditions of continuous work, developing the ability to fight fatigue when Endurance a high degree of intensity of (75-100%) of the ability of the individual "1.

It is a very important component and necessary for many sporting activities and games, including basketball, which requires extreme or near-maximum performance so that the athlete resists fatigue despite the accumulation of quantities of lactic acid in the muscles and blood due to the lack of oxygen that was consumed due to extreme performance.

For the development of speed Endurance, there are special training methods such as repetitive, high-intensity and Fartlak 2 training. Vartelk is an "old training method" (speed play) discovered by the Swedish Olympic coach (Kosna Holmer) in (1930.(

Fartelock is one of the most appropriate of these methods from the researcher's point of view, because its performance system is to some extent the performance of the basketball game, as the system of this method is the performance of running at variable speeds and for varying distances while taking a break between walking and jogging and does not require a special playground or a certain time, it is used Anywhere and at any time. The nature of its performance system, i.e. the way this system is performed, works to develop both speed and endurance, and these specifications are all very similar to the performance of basketball requirements.

From here the importance of this research appears in choosing a trait of speed Endurance that is commensurate with the recent change of the basketball system and its needs for such ability, with the effect of training a new method on those involved in basketball, which is the Fartlik training system.

Research problem

The problem arose for the researcher to develop the ability to bear the speed of basketball players, especially those from 14-16 years old, because they are preparing the basic building block in the future and the use of the method of training Fartalik in a Holmer style designing a method that fits with the basketball game because the system of this method is somewhat similar to the performance of basketball to run Distinctively different distances between maximum and light jog as it works to develop speed Endurance.

research aim

- Knowing the effect of Fartlak training on developing speed Endurance for basketball players aged 14-16 years.

Research hypotheses

- There are statistically significant differences in the development of velocity Endurance using the rated difference method between the pre and post tests of the experimental group.

- There are statistically significant differences in the development of speed Endurance in the post test of the experimental and control groups

II. Research Methodology

The nature of the problem to be solved is what determines the methodology of the research used, and since the experimental research includes an attempt to control the basic factors affecting the change of dependent variables in the experiment except for one factor that the researcher controls and changes in a specific way in connection with determining its effect on the variable or dependent variables and measuring it. The experimental and control equivalents so that these two groups are completely equal in all their circumstances except for the experimental variable that affects the experimental group " to suit the problem to be solved.

Research community and samples

After defining the research community and represented by the youth teams ages (14-16 years), the sample that represents 26% of the original community was chosen because it is "the model part that the researcher conducts as a whole and the focus of his work on it. in a random manner and in the method of (drawing) the choice was made on Al-Karkh Sports Club The sample reached (26) players, (4) players were excluded as a result of their call to represent the junior national team and (6) players to Endurance out the exploratory experiment, so the number of the sample became (16) players.

Research Tools

To provide a set of devices and tools necessary for the purpose of using them to solve the problem, whatever those tools, and to make sure that these tools are suitable for research to achieve hypotheses. In fact, the researcher used the devices, tools and means that helped the researcher to conduct his research, as follows:

- Height and weight measuring device, (1) whistle, basketball court, yard and field track, advanced computer (p.3), manual calculator (Casio).

The Testes

Measured variables:

- 300 m speed Endurance

Applied Test

The implementation of the curriculum took 8 weeks, and most of the changes resulting from the training usually occur within 6-8 weeks, at the rate of (3) training units per week. Speed training exercises are given 2-3 times per week. Thus, the number of training units reached (24) units for the period from 29/6/2019 to 21/8/2019.

The researcher relied on calculating the training size on the performance time for the training vocabulary. The total training volume reached (300) minutes distributed over the number of weeks, as the time of the first week (30) minutes spread over three units of the first, second and third unit time (10) minutes each.

As for the time of the second week, it reached (33) minutes, distributed also over the three units (11) minutes each. The time for the units of the third week was (36) minutes distributed by (12) minutes for each unit, so the increase would be (3) minutes per week. As for the fourth week, the second week training curriculum was referred to as a hospitalization stage. The implementation of the vocabulary of the training curriculum was in the final part of the main section of the training unit for the trainer, that is, after the skill and planning side has ended.

As the experimental and control groups performed the vocabulary of the training unit in the warm-up and the skill and planning aspects together, and at the end of the main part of the time allotted for the implementation of physical preparation, speed Endurance is developed together for the two groups. The pilot implements the Fartelik training curriculum under the supervision of the researcher and assistants, and the control implements the trainer method and supervision. The two groups equate the size of the training and differ in the training method and the distribution of stress and comfort.

As for the fifth week, the training volume reached (39) minutes, the sixth (42) minutes, and the seventh (45) minutes. As for the eighth, the volume of training for the sixth week (42) was referred to. The researcher relied on the principle of training increase in the training size and reduced it in the fourth week To be a hospitalization and increase stage in the fifth, sixth and seventh week and to reduce it in the eighth for the same purpose.

III. Results and discussed

View and discuss search results:

Table (1) shows the arithmetic mean, the standard deviations, and the calculated and tabulated (T) values in the post test between the experimental group and the control.					
Groups	Post-Test		Calculated value of T	Table (T) value	Significance
	A	Std			
Experimental	49.25	3.78	2.857	2.047	Sign
Control	54.25	2.28			

Through the previous presentation, we note that the results of the speed bearing test ran (300 meters) for the experimental group, which was improved in the post test than in the pre-test, which indicates that:

The training has worked to develop the capabilities of the players to improve their performance and then the result of this improvement in the teams that appeared in the results of the pre and post tests in favor of the post, as the structured training and based on scientific foundations in giving a physical pregnancy contains intensity, size and comfort, which competes with capabilities Players work to develop the capabilities of their vital devices, the different functions that they perform and the changes that affect them and consequently their performance.

"The sports training process is an organized educational process that is subject to the scientific method and depends on scientific laws and aims to prepare the athlete fully in all respects and push him to reach high levels through the use of physical pregnancy." 2.

Also, the period during which the research sample was subjected to training was sufficient to bring about this development, which indicates that training for the experimental group was organized in a scientific and appropriate manner to the capabilities of the players, which led to a better level of performance than the control group, which showed their statistical results on the presence of moral difference, and if there were It improved, but it did not appear highly compared to the experimental results, which indicates that their development was weak despite the time period during which the two groups underwent training were equal in the training size, as well as the time period in which the training curriculum was applied in a fartalk method sufficient to effect this change towards The best thing is that "most of the changes resulting from training occur usually during the first period of the program within 6-8 weeks" 3.

Endurance speed is one of the complex physical characteristics required by most sports that are characterized by rapid performance and for a long period of time, and this is what should be characterized by basketball players who perform continuous transitional movements between defense and the transition to attack and then back to defense when the ball is lost and this continues throughout periods The four match, so the development of this trait they have helps them to perform continuously with high intensity resisting that fatigue that occurs as a result of this, and this is what happened with the experimental group whose arithmetic mean was less than the control group and this is what the researcher indicated that the majority of coaches work without using the method Certain training and weakness in choosing appropriate physical traits. To confirm the importance of this quality to basketball players, the percentage is estimated at 30% of the total other qualities that this game needs, which is the highest percentage 4.

Fartelik training in Holmer style is somewhat similar to the form of kinetic performance in the basketball of the performance of a continuous transitional movement and cutting various running distances with varying intensity between the maximum and high speed and for a long period of time from each period of the game, especially if the training curriculum is codified to be consistent with the requirements of this game from a period Time, transitional movement, and in a defined area on Stadium 5.

IV. Conclusions and recommendations

Conclusion

Through the above presented results and the researcher's analysis and discussion of these results, he reached the following conclusions:

- The use of the Fartelik method in the Holmer method (playing with speed) improved the ability of players to withstand speed, due to the similarity of this style with the nature of kinetic performance of the basketball game, which led to the emergence of the rate of evolution of the experimental group better than the development of the control group.

- The development of speed Endurance has had a major impact on improving the players' ability to better and their ability to resist fatigue and continue to perform with high efficiency.

Recommendations

Through what has been concluded, the researcher recommends the following recommendations:

- The need to use the Fartelck method in the Holmer method more broadly to develop basketball players' endurance and speed.

- Adopting time from 10 to 15 minutes as an ideal time for velocity training exercises at the end of the training units during the special preparation phase.

- Endurance out research using the Vartelck method using the Holmer method to develop speed Endurance for the difference games.

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