

Developing the Rear Circular Motion According To Auxiliary Device In The Ground Gymnastics

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Abstract

Tests are among the priorities of science that reach us to scientific facts, including the processes of manufacturing devices and tools that are of great importance in the learning process, and in the sport of gymnastics, which has a particular character of the age group associated with the element of fear and anxiety as well as through the difficulty of the skills to be learned. Tools are among the most important factors that contribute to the speed of mastering learning skill while raising the side of anxiety and fear.

The researcher has reached through the conclusions that the designed device is important in the development of the skill to be learned

Keywords: *development, circular motion of your gymnastics, by a factory device.*

Introduction

The learning process is important in preparing the players from the early stages of childhood and creating the right conditions for them to acquire mental, physical and psychological experiences through different educational and training curricula, as the educational curricula contribute to some extent in the process of organizing and arranging exercises according to the scientific bases studied and the standards followed for Raise the level of achievement in various sports, including gymnastics.

Gymnastic sport is one of the basic sports of the Olympic Games and the tracker of this sport is noted the development of skills varied in terms of difficulty and technical performance on various devices, especially when they master the correct technical foundations through educational and training curricula, this sport is a long self in training and need to start early ages to build A fundamental basis for the learning process because it is a sport with a direct impact that affects the development of their mental, physical, skill and physiological abilities.

The interest of the developed countries in this kind of sport (gymnastics) has two considerations: because it builds the human being properly and soundly, and the second because it has an ample share of decorations equal to twice the medals in group games and other individual games, especially in the Olympic and regional

tournaments as a result of the inclusion of multiple devices, and the amount of decorations The country has won 28 gold, silver and bronze medals.

As gymnastics in the world is developing rapidly, we need to keep up This development so as to keep pace with international in this area.

This will only be achieved through scientific research and the use of innovative scientific methods Learning, training and selecting the appropriate methods for the type of performance required in order to raise the level of the player Physically and physically.

Search problem:

Through the follow-up of the researcher for a number of competitions at the level of the country, especially the races of the age group under ten years and through personal interviews of a number of country coaches regarding the age group under (10) years found that it depends on personal experience in the process of learning motor skills in addition to that some trainers Engage the novice player in competitions before the process of mastering learning skills in this game, where the process of mastering skills in the game of gymnastics significantly contribute to determine the level of technical performance of the player and in the case of lack of skill will affect the outcome of the player and

the final team Lack of educational curricula based on the scientific basis to the lack of development in the level as well as to the lack of the player’s ability to develop these skills in the future to difficulty with higher skills.

For this purpose the researcher wanted this study, which investigates the problems of the group of reasons that address the real problem and put it in the hands of workers and trainers to work in the light of the results derived from the research.

Research Objectives

1 - Design auxiliary device for the development of circular motion in ground gymnastics.

2 - Identify the performance time of the circular movement of the members of the research sample.

3- Recognize the differences in the research sample.

Research hypotheses:

1- The variation of the period of time to perform circular motion among the members of the research sample.

2 - There are statistically significant differences between the members of the research sample

Research Methodology and Field Procedures:

Methodology and Research Sample

The experimental method was used in a one-group approach to suit the nature of the research problem to be solved. “The experimental method is one of the most efficient means of obtaining reliable knowledge that can be used to solve problems.”¹ Recently to the Specialist Center in Muthanna. The research community consisted of (16) players. The device was applied to the community as a sample of the research experience and the percentage of the sample was (100%).

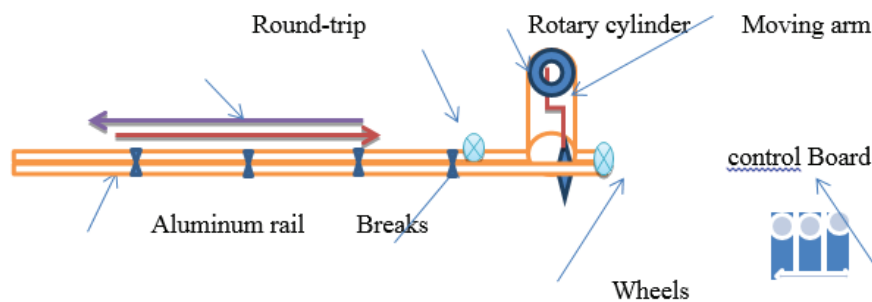
Components of the device: The device consists of a set of parts that serve the performance of this skill.

- * - Aluminum rail (2) length of 5 meters
- * - Cylinder to move the arm in a circular
- * - Iron wheels number (4)
- * - Aluminum box length (30 cm and width of 5 cm).
- * - Pods
- * - Bluetooth device.

- * - Circular arm of iron in the form of ()
- * - Remote control panel
- * - Battery (12) volts.

machine specifications:

The device works by remote control through synchronization with the movement of the player and the amount of differences in terms of speed and the number of steps in the performance of this skill so that the performance of the jump stage is synchronized with the moment of jumping and controlled by the coach through direct viewing where the work of the inner cylinder in a circular Tied to the arm that rotates with the movement of the cylinder and whose task is to lift the center of gravity for the player through a well-installed and tightly incubator, which is a wave towards the most important area to lift the center of gravity is represented by the hip at the end of the thighs from the bottom This process is carried out through the fixed position of the performance and when Repeat this movement The device is also fixed in the same place of the player and when the repetition of continuous movement of the device works the same mechanism, but the coach is moving the device that works through Bluetooth in the horizontal direction that helps him in the movement is the presence of wheels that run over the aluminum rail and these duplicates The horizontal of the movement is a distance of (5) m length of two rails of aluminum each end at the end of the key to shorten the length of this rail to be easy to carry and transport and is used in more than one place, as shown in the following figure.



Application of the machine:

The goal is to teach players the skill required to learn the movements of the carpet movements of the circular jump in the game of gymnastics, which are basic skills that will be the basis for many other skills.

The researcher started the application on Sunday 6/3/2020 until 6/5/2020 and was carried out after giving the two modules to the research sample and then conduct the pre-tests where for (8) (Consecutive weeks) (3) units of instruction per week, including (24) units and the time of teaching unit (66) minutes in the main section as a special part to learn motor skills were taken into account

the graduation in the size of the training where the time of exercise of the players (20) minutes of the device In the first and second week rest periods were 1 ring Ge included an side of my 2 minutes for each device either in the third and fourth week was lifted volume training by reducing the rest periods to half of 30 seconds with the survival of the theoretical side 2 minutes either on the fifth, sixth, seventh and eighth week.

Skill Time Measurement

Video was conducted to measure the skill time of the research sample and on the hall of the Muthanna Sports Club where each player performs two attempts for the skill of the hands jump back and small rear circle.

2.6 Statistical means:

3-4. View, analyze and discuss the search results:

$$\left(X_{-} = \frac{\sum X_i}{n} \right) \quad \left(S_d = \sqrt{\frac{\sum X_i^2 - \frac{(\sum X_i)^2}{n}}{n-1}} \right) \quad \left(T = \frac{2D_{-}}{X_{-} - X_{-}} \right)$$

3-4. View, analyze and discuss the search results:

Table (3): It shows the mean, standard deviation, calculated (T) values, spreadsheet, and type of statistical significance of the results of the pre and post circular motion of the sample

Statistics Variables	Measure	Posttest 1		Pretest		(T)	Sig
		X-	S d	X-	S d		
Circular motion of the back hands jump	Tame\s	0.989	0.799	0.323	0.212	3.011	0.02

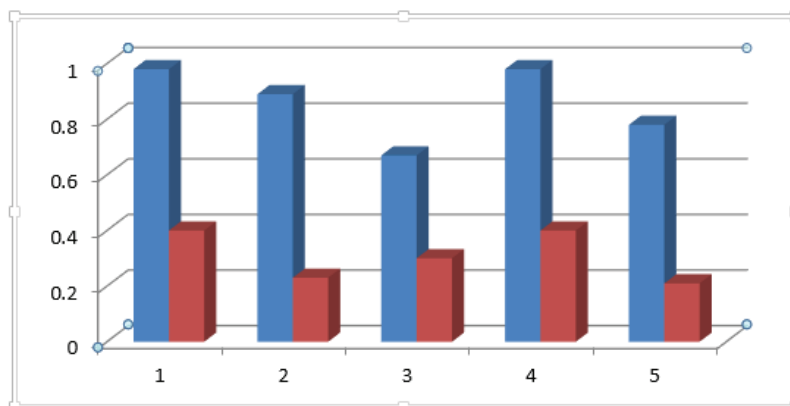


Figure (1) shows the improvement of the sample

The reason for the development in the application is due to the auxiliary device in learning this movement as well as the process of transfer of the impact of learning between similar skills, whether in the exciting or in response to a skill, which has helped to learn the new skill. Learning between the parts of the skill in terms of perception and physical attributes and the use of repetitive attempts has a positive impact in increasing learning and development, since repetition forms of mathematical movements is to stabilize the field and dynamics of its progress, and in general be a clear and meaningful direction and to calculate the ability and leadership His hips.

The researcher believes that the application on the device has in addition to the motor performance in addition to the displacement of the factor of fear and anxiety and psychological “This occurs the beginnings of learning in early childhood because the child wants to learn, and this makes learning at this age stage feasible, and the researcher also believes that a good relationship Between the components of the load in terms of experimental size and rest periods have effectively contributed to the process of organizing a timely time so that the players move from one repetition to another in an organizational manner so that players have an understanding of the time of each exercise in learning a skill”².

The researcher also states that the gradient in the difficulty of performance and by making the skill run smoothly by the auxiliary device to perform this skill on a straight line and for the purpose of expanding the base of perception of the player as the extension of the joints of the body with one line and make the center of gravity of the body perpendicular to the base makes the skill more consistent And aesthetic in performance, “the coordination and organization between tensile and relaxation in muscle contractions gives the flow of movement”³

Frafel says that “the basis of acceptance of information is subjective and that its integration serves only subjective information and when expanded, is sufficient to arrange the objective sense of motor measurement in other words, the greater the completion of objective information to the athlete and obtained whenever he was able to integrate the technique early”.⁴

Conclusions and Recommendations

Conclusions:

1. The auxiliary apparatus has achieved its purposes and objectives for which it was established by teaching the performance of the skill to be learned properly.
2. The device contributed to the process of stimulation and response led to the transfer of learning between parts of the skill.
3. The use of instructional steps in the skill has a positive effect in improving

Level of skill learning and technical performance.

Recommendations:

1. Attention to the stages of age below (10) years as it is essential in the construction of most different sports.
2. The need to use the gradient in teaching skills from easy to difficult of similar skills in the motivator and response for the purpose of benefiting from the transfer of learning from one skill to another skill.
3. Adoption of the device as an aid in educational institutions and training centers for the category of buds since the curriculum has achieved good results in teaching basic skills.
4. Conduct research and studies similar to the basic skills on the rest of the organs in gymnastics Professional.

Conclusion

Financial Disclosure: There is no financial disclosure.

Conflict of Interest: None to declare.

Ethical Clearance: All experimental protocols were approved under the Physical Education and Sports Sciences and all experiments were carried out in accordance with approved guidelines.

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