

The Effect of the Use of Semicircular Device to Learn the Performance of the Two Stages of Planting in the Box and Raise the Jump Pole for Female Students

Mohammed Naji Shaker Abugneam, Rawa Wadi Ajil

Department of Physical Education and Sports Sciences, Faculty of Education for Girls, University of Kufa, Iraq.

Abstract

The study included the design, manufacture and use of a semi-circular circular mechanical device. Mechanisms were used to learn the technical stages of performance by jumping the pole for female students. It was installed on the ground. And thus helped the students to perform easily as the effectiveness of bowel jump needs physical and motor abilities in addition to the correct technical performance as well as the general neuromuscular consensus according to the paths of movement, especially for students. The exercise was applied to the device from the group of experimentation Of term (6 weeks) by two units learning at a rate of 12 educational units then it was compared with the control group in reserving the technical performance of the digital level as statistical results showed experimental superiority over the control.

Keywords: *Design, Educational device, Jumping and learning.*

Introduction

The instruments are used to improve the teaching and learning process in different sports, [1] and in motor learning, the response is in the form of motor behavior of large muscle groups to reach the target, [2] and is closely related to the peripheral central nervous system, responsible for control, [3] And the aids that the teacher or trainer decides to use in educational situations may not be available in the local market. Here the trainer must be familiar with the methods of designing and producing locally from the simple materials available in the individual environment and the efficiency of bowel jumping. The events of the arena and field games, which depends to a large extent on the mastery of the stages of the

performance of the art consists of several stages (the stage of holding the pole and carrying the stage of the rapprochement and the stage of implantation in the fund and the stage of upgrading - the advancement - and the stage of flight and the stage of clouds and rotation and payment and finally "the stage crossing the crossbar and landing). In the research, the two researchers studied the study of the stage of implantation in the box, which is an integral part of the length of the rotation. The hopper begins to direct its gaze to the box to ensure that it is stabilized. The preparation process for planting the column in the box begins during the last three steps as the front of the incline is downward in the direction of the box and as in (Figure 1) [4].



Figure 1: The column in the box begins during the last three steps

As well as the study of the stage of elevation - advancement-which is a complex and difficult process to a large extent, starting with the stage of elevation on the ground and ending when the foot of the ground leaves the ground that the moment of planting the

column in the box corresponds to base the elevation with the ground in order to get the best transmission of kinetic energy to potential energy in the direction of new movement .As in (Figure 2).

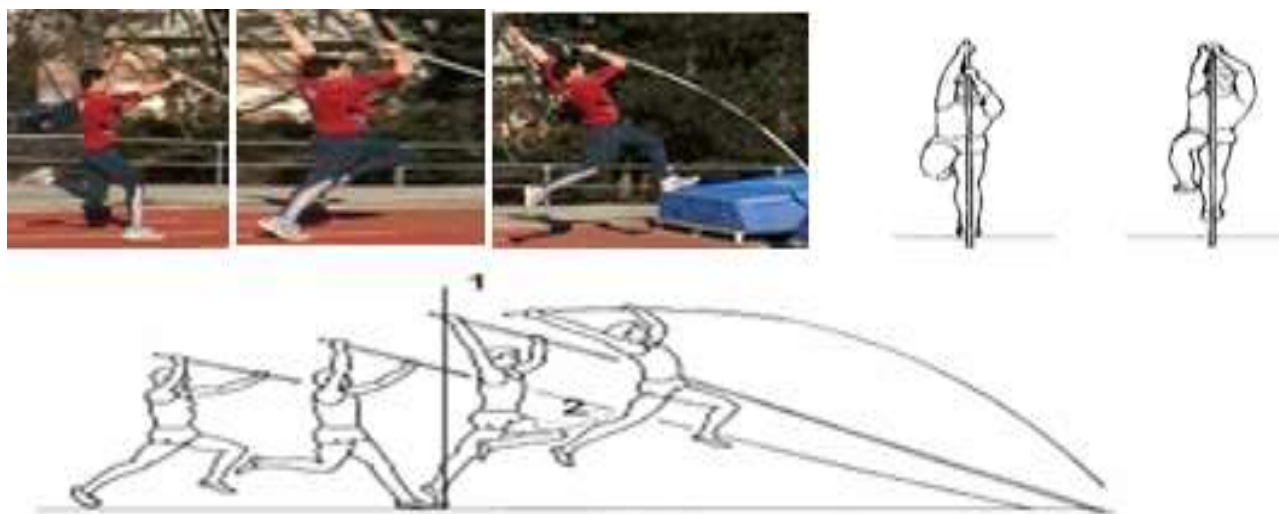


Figure 2: Transmission of kinetic energy to potential energy

Practical Part

Field Search Procedures

The researchers chose the sample of their research (30) of the total (33) of the second year students in the Department of Physical Education and Sports Science In the College of Education for Girls for the academic year 2017-2018, where the sample was divided into two groups (control and experimental) each group consisting of (15) female students and thus represented the sample (90.91%) while (3) students in the pilot experiment, Exercise on the semi-circular device (semicircular) to learn the performance of the two stages of planting in the fund and upgrading, and the group of the officer has relied on the performance of the same exercises prepared by the teacher without the use of semicircular device in learning the performance of the stages of planting in the Fund and upgrading. Some anthropometric measurements such as age, height, mass and homogeneity in the performance of the two stages of planting in the fund and advancement between the two groups [5]. The researchers also set up the necessary equipment and tools in their experience, including a balance for measuring length and mass of the body, pole vault, rubber rope, measuring tape, a Japanese-made Sony speed camera (200 copies / second), a Lenovo computer, Innovative device.

Measurements and Pretest Tests

The test of the experimental sample was conducted on Tuesday 1/3/2018 in the external sports arena in the Department of Physical Education and Sports Sciences / College of Education for Girls / University of Kufa after presenting induction units for one week before performing the tests because the effectiveness is new to sample search.

Educational Units

The number of educational units was (12) units of education lasted (6) weeks per week (2) units of education, the duration of the educational unit (90) minutes where the implementation of the training curriculum as of 6/3/2018 included the main experience to learn The experimental group was taught using semicircular exercises. The aim of the experimental sample was to improve the performance of the two stages of implantation in the Fund and to promote the vaulting of the students. The curriculum was applied concurrently between the two groups Where the two groups share the preparatory segment of the educational unit, which includes warm-up public and private and in the final part of the educational unit, which includes exercises in the calm two groups differ in the application main part of the educational unit in the use of the experimental device without the control of the device [6].

Description of the Semi-circular Semicircular

The researchers worked on the design of a device used to simulate the learning of some of the technical stages of vaulting, including (the stage of planting in the fund and the stage of upgrading or advancement up to the stage of flight up and the stage of clouds and rotation and payment and finally crossing the crossbar and landing) and consists of:

- A rectangular steel base with a length of 31 cm and a width of 12 cm on the ground, with four screws of a length of 6 cm and a diameter of 5 mm placed at each end of the four bases in an expanded nails with screw.
- At the ends of the rectangle are connected vertically and at an angle (90 °) on the base of the rectangle rectangular piece of iron also, but from the top, the sides are oval shape length (10) cm and width (5) cm at

the top of the blister (mid) and (4) Cm at the lowest point (the two sides).

- The two vertical pieces at the ends of the base of the rectangle are connected to a circular iron piece (rod) diameter (15 cm) and length (28 cm) that is fixed without moving.
- In the penis in paragraph (3) above there is a hollow piece of iron (cylinder) with a diameter of 16 cm and a length of 25 cm.
- In the middle of the hollow circular piece referred to in paragraph (4) above, there is a circular piece with a diameter of 3.5 cm and a hollow (3 cm) hollow inside and a vertical tube in the middle of the circular piece.
- There are two small pieces of iron (4 cm) on both sides of the cylindrical hollow metal piece referred to in paragraph (4) above. The aim is not to allow the hollow steel piece to rotate completely on the rod in (Figure3) 140 °.

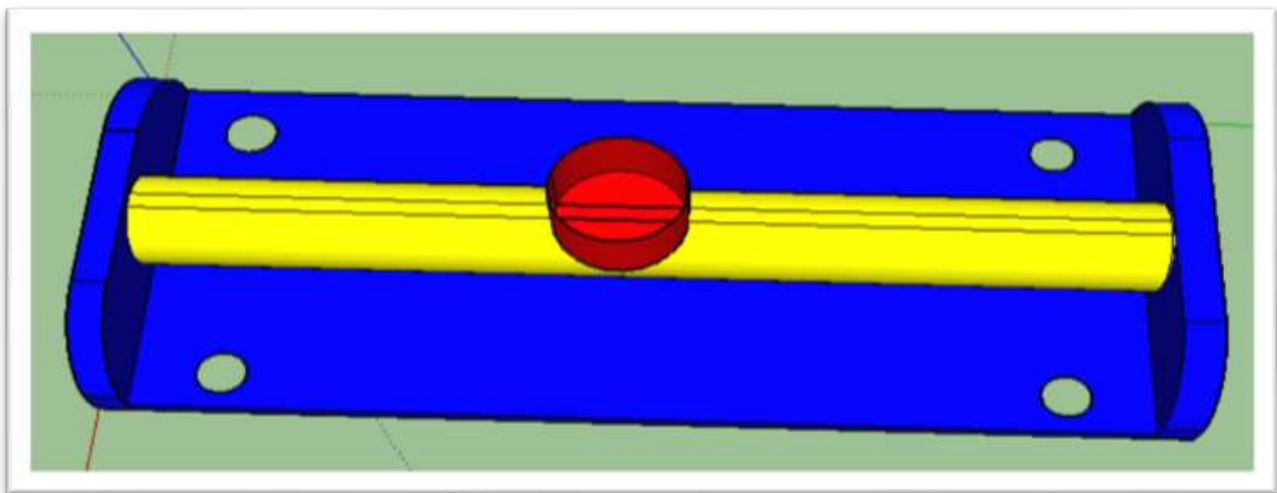


Figure 3: Shows the base of the device

- A circular iron column (2.5 m) with a serrated end of one end shall be fixed with a piece of iron fixed vertically in paragraph

(5) to represent the column in which the student can learn some technical stages.

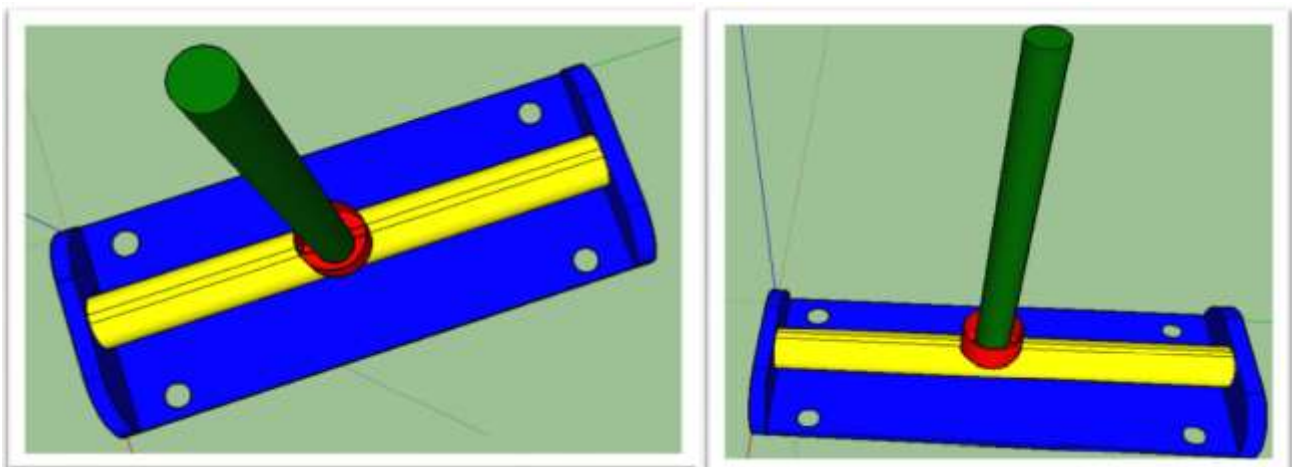


Figure 4: Shows the column connected to the device

That this part of the device in addition to the stages of art that simulates learning will provide a safe learning environment for the learner raises the motivation for performance and repetition away from anxiety and fear of performance in the traditional learning environment of the effectiveness of bowel jump, especially for students as they practice this activity for the first time and thus avoid performance for fear of failure or Injury The device helped to learn easily and smoothly and feel the technical stages when explained by the teacher and the performance of the student.

Posttests

The -test of the research sample (control, experimental) was conducted on Sunday

15/4/2018 by performance of the sample and photographed and evaluated by the arbitrators themselves in the pretest test.

Statistical Means

The statistical program SPSS was used.

Results and Discussion

After conducting the pretest and post tests for each of the two groups and treatment statistically there were statistical differences for the tests of the dimension of each group and to study which of the two groups were better the researchers studied the results of the tests after the statistical and as shown in Table (1).

Table 1: Shows the mean, standard deviations, calculated t-test value, Sig value, and the significance of differences for the results of the post tests of the control and experimental groups

Variables	Units	Control group		Experimental group		(t) calculated	Sig.	Angury
		test		test				
		Mean	SD	Mean	SD			
Plant planting stage	Grade	3.4	0.17	4.5	0.10	4.335	0.000	Sig.
Upgrading stage	Grade	3.7	0.12	4.9	0.11	4.496	0.000	Sig.

Table (1) shows that there are differences in the computation, standard deviations and the value of t-test in the post search tests of the experimental and control groups. As the sig value is smaller than (0.05), there are significant differences between the two groups and for the benefit of the experimental group

The researchers attributed the reason for this difference in the results of the experimental group that used the semi-circular semicircular device which positively affected the process of learning and performance of the two stages (planting of the stick as well as upgrading or advancement) compared to the control group, the auxiliary means of the innovative device included in the units The learning of the experimental group helped to increase the ability of students to control and balance the moment the stick was caught in the stage of implantation in the box through the vertical movement of the column in the last steps of the jump [7].

This is in line with what Wajih Mahjoub said about the importance of creating a smooth flow movement in all periods and as a single piece. He also agrees with Qasim Hassan Hussein that teaching technology has requirements besides time "Learning does not happen simply by repeating the movements and mathematical skills of the players. Rather, the training must be based on a standardized scientific basis for progress in

the level," he said [8].For their ability and ability to sense "[9].

Refers (Mohammad Hassan Allawi)" The improvement in the level of the individual capacities resulting from the practice of sports training from the important and necessary to ensure the height of motor capacity or at least ensure the retention level, which reached the level of the individual factors ".[10]

Conclusions

- The circulatory system has a positive effect on the development of the stage of planting the rod in the box and upgrading - promotion - in the effectiveness of pole vaulting in the experimental sample compared to the control group.
- The circulatory system has a positive effect in developing the stage of upgrading - advancement - in the effectiveness of pole vaulting in the experimental sample compared to the control group.
- The development of skill performance through the clear difference of the results of

the experimental tests of the experimental group, confirms the effectiveness of the

independent variable and experimental control.

References

1. Mohammed Naji Shaker Abugneam, Heba fayeze kamal (2017) The Design of A Multi-Skills Appliance and Its Effect to Improve the Sum of Motor, Functional Abilities and Skills of Passing and Scoring for Female Students in the Futsal. *Journal of Global Pharma Technology*, 09(9):182-186.
2. Nahedh Abdul Zaid (2008) *Fundamentals of Motor Learning*, Edit. 1, Najaf: Dar Al-Diaa Publishing and Distribution, 170.
3. Mohammed Naji Shaker Abugneam, Hawraa Faiah Razzaq Al-Dulaimi (2017) Effect of Using the Innovative Light Zone to Develop the Accuracy of Performance the Forehand and Backhand Skills for Female in Tennis. *Journal of Global Pharma Technology*, 09(9):153-156.
4. Express Khayon (2002) *Motivational Learning between Principle and Practice*, Baghdad: The Rock Office for Printing, 18.
5. Schmidt A Richard (2000) *Motor Learning and Performance, Human Kinetics*, 11: 84.
6. Fawzi Fayeze Ashtaywa and Rabhi Mustafa Alyan (2009) *Technology of Education (Theory and Practice)*, Edit.1, Dar Safa Publishing and Distribution, Amman, 124.
7. Bastoise Ahmed (1997) *Track and field competitions*, Edit. 1, Cairo: Arab Thought House, 374.
8. Risan Khreibt, Abdul Rahman Al Ansari (2002) *Athletics*, Jordan: House of Culture for publication and distribution, 183.
9. Sulaiman Ali et al *The Scientific Analysis of Field and Field Competitions*, Cairo: Dar Al Maaref Publishing, p. 187.
10. Wajih Mahjoub, Ahmad Badri (2002) *Principles of Motor Learning*, Mosul: University House Publishing, 95
11. Qassem Hassan Hussein *Basic rules for the education of games arena and field in the events of jogging and jumping*, Freedom House for printing and publishing, 394.
12. Qasem Lizam Jabr et al (2005) *The Foundations of Learning and Teaching and its Applications in Basketball*, Baghdad, 30.
13. Mohamed Hassan Allawi (1994) *the science of sports training*, Edit.13, Cairo-Helwan University, 78.