

The Effect of Special Exercises by Using Training Methods to Assist in the Development of Some Motor Abilities and Handstand Skill of Still Rings for Young People

Anmar Atshan Khargan¹, Sadeq Yyousif Muhammad¹, Hekmat Abdul Sattar Alwan¹

¹Student, University of Thi-Qar- College of Physical Education and Sport Sciences

Abstract

Artistic gymnastics is considered as one of the plays that developed, in which the performance reaches to the top, we exactly dedicate to the still rings device that its exercises characterized by strength, stability, pronation and tucks flyaway of handstand, so an athlete needs to strength, speed, endurance, fitness, balance and flexibility. This study aims at preparing some special exercises using assistance tools to improve some motor and skills abilities on the Still Rings device. This study hypothesized that there is no significant differences between pre and post-tests of the experimental and control groups in the motor abilities and handstand skills of still rings device for the good of experimental group. The researchers used descriptive method with two groups. After homogenizing and equaling the sample of the research, the researchers applied special exercises on the experimental group that made up of (24) training modules. The researchers concluded that the special exercises with assistance tools have a great role in improving the motor and skillful abilities of the experimental group. The use of these assistance tools in improving the performance of some skills which assist in saving time and effort of the trainer and the player.

Keywords: *Handstand Skill, Still Rings and Motor Abilities.*

Introduction

The role of sports training lies in applying its principles, rules and scientific bases in building the essential training curriculum in each game and sports effectiveness, including the gymnastics game, which has the specificity of special physical requirements and high performance art in addition to that of its practitioners must be young people comparing with players in some other sports. Gymnastics works to form and build body and gain good strength and enjoy high fitness, although, it is a single game but it offers an infinite opportunity in creating the ability to invent and success through performing motors which leads to the development of the ability of consistency, continuity and compatibility

among players. The still rings device is considered as a lovely device, because it has lots of features as well as the extent of invention in the skills used, hence the movements on this device is characterized by strength, stability and the diversity of movements and their interconnection in a form that combines tuck flyaway, strength, stability and motor pronation to perform a series of motions ended with weakening. The significance of the study lies in preparing exercises for the special strength using training tools to assist in developing the physical, motor and skill abilities of players, because these exercises have a great role in building muscle strength and developing performance art, which requires performance exercises that related with the skill to be performed, exercises will be selected to correspond to the motor performance of the skill to be performed on a device that contributes to improving the performance art of this skill to achieve the best in gymnastics game.

Corresponding author:

Anmar Atshan Khargan.

University of Thi-Qar- College of Physical Education and Sport Sciences, Iraq; E-mail: Anmar.atshan@utq.edu.iq, dr.sadeq70@gmail.com, hakmet.hm@gmail.com

Statement of the Problem

The gymnastics art is a game that was improved, in which the performance rising to a greater extent,

we indicate specifically the still rings device that characterized by strength, stability, pronation and tucks flyaway of handstand, so an athlete needs to strength, speed, endurance, fitness, balance and flexibility in order to perform the skills in this device. Through the researchers' experience as trainer, former player and by follow up of all gymnastics tournaments that take place at the country level for young people as well as their the training courses, the researchers illustrated that there was a problem lies in weak performance of handstand skills of still rings for young people, which represented in big litigations by the execution (E) committee, as a result of tuck flyaway and non-stability that leads to litigate the score. The researchers believed that the lowly artistic performance according to trainers' views is due to the lack of physical preparation that associated with the skillful part because most of the gymnastics training skills depends on experience and self-assessment as well as the lack of use of devices and assistive training devices due to the lack of most of them, which encouraged the researcher to use the training devices as well as prepare exercises for skillful performance that work to improve physical and motor abilities and artistic performance by using the still rings device.

Aims of the Study

1- Preparing special exercises by using some tools to improve some motor and skillful abilities by using the still rings device.

2- Identify the effect of special strength exercises by using some tools to improve some motor abilities and the skill of handstand by using the still rings device.

3- Identify the significant differences between the experimental and control groups in pre and post-tests of the motor abilities and handstand skill on the still rings device.

Hypothesis

1. There are significant differences between the results of the pre and post-tests of the experimental and

control groups in motor abilities and the handstand skill by using the still rings device for the good of post-tests.

2. There are significant differences between the results of the post-tests of the experimental and control groups in motor abilities and the handstand skill by using the still rings device for the good of experimental group.

Limitations

Human limit: Gymnastics players (young people) who their ages ranged (10-12) years, Training Center in Thi-Qar.

Time limit: the period from 1/1/2019 to 1/9/2019.

Place limit: The hall of Nasiriyah Specialized Gymnastics Training Center

Practical Framework

Methodology

The researchers used a descriptive method with two equaling groups (experimental and control groups) of the pre and post-tests in order to appropriate the problem of the study.

The Sample and Community of the Study

The study community represented by the young gymnasts who have trained at the specialized training center in Nasiriyah, who numbered (8) players, their ages ranged between (10-12) years, the sample selected in the intentional way represented (100%), the random method was adopted in dividing the sample of the study, so the researcher adopted the method of the lottery by dividing the sample into two groups (experimental and control), each group included (4) players, the researcher homogenizing the study sample by using Coefficient of Skewness as in table (1), through the variables of coefficient of skewness value, less than ± 3 that means the sample normally divided.

Table (1). Shows the Homogeneity of the Study Sample Members in the Sample Specifications

No.	Variables	Measurement Unit	Mean X	SD	Coefficient of Skewness (SK.)
1	Length	Cm.	139,37	10,43	0,32
2	Mass	Kg.	33,75	7,36	0,02
3	Age	Month	132,00	9,07	0,00
4	Training age	Month	52,50	10,99	0,99

The researcher made equalization between the experimental and control groups, which illustrated by table (2)

Table (2) shows the equalization of the two groups

No.	Variables	Measurement Unit	Experimental group		Control group		Sig.	Significance Level
			Mean X	SD.	Mean X	SD.		
1	Length	cm.	137,50	8,081	141,25	12,91	0,64	Non-sig.
2	Mass	Kg.	35,25	8,73	32,25	6,65	0,60	Non-sig.
3	Age	Month	132,00	9,79	132,00	9,79	1,00	Non-sig.
4	Training age	Month	51,00	11,48	54,00	12,00	0,73	Non-sig.
9	Imbalance	Second	16,25	0,95	15,75	1,70	0,62	Non-sig.
10	Fitness	number	5,75	0,50	5,50	0,87	0,53	Non-sig.
13	Handstand	degree	3,50	0,57	3,25	0,50	0,53	Non-sig.

The Procedures of the Study

Fitness Test

Test name: Burpee (Squat Thrust) of stand:

Aim of the Test: to measure the fitness.

Age and gender level: from 9 to 17, both male and female.

Tools used: Stopwatch

Performance specifications: The experimenter takes stand mode, with the starting signal moves to squat, then to the Burpee Squat Thrust, then back to squat, and finally to stand mode, the body must be straight when passing standing mode, and in squat mode the ground must touch the hands repeatedly as much as possible for 10 seconds.

Scoring Points: each standing has one score, for example if the experimenter completed four exercises then turn in the fifth time to squat, would got only (4.25) degree, if he/ she reaches to Burpee (Squat Thrust), which provide him/her (4.5) degree and if he/she returns to the squat mode after Burpee (Squat Thrust) he will get (4.75) degree, every experimenter has the right to try

three times, then the best performance will be scored.

Hard balance test

The aim of the test: this test aims to measure the dynamic balance.

Tools used: Pommel horse - stopwatch, foam mats.

Performance specifications: The experimenter takes a parallel standing mode - capture the two rings of the Pommel horse, with the start signal, the player jumps to center open, and strength in the longest mode as long as possible.

Scoring Points: Calculating the time of stability per second.

Description of skill tests:

The researcher conducted pre-skill tests for the members of the study sample, the tests included the performance of the members of the study sample for the skill of handstand and was photographed and presented to the referees to be evaluated by a jury made up of four referees, it has done by agreed with the jury members to evaluate the artistic performance of the study sample by

watching TV show of the pre and post skills test. The questionnaire contained referees' scores, which each one were (10), and write off the highest and the lowest scores as well as adding the two mean scores then divided by 2, in order to extract the final score of the player.

Pre-Tests:

The researcher conducted pre-tests of the special motor abilities of the experimental and control groups as well as the artistic performance on the still rings device on Saturday (2/3/2019).

Special Exercises:

The researcher prepared special exercises aimed at improving motor abilities and skill handstand among the players, these exercises characterized as contributing to the achievement of the aims of the special preparation level (physical and skill) for young players (specialist center - Nasiriyah) as well as homogenizing the exercises insides with their motor and skill characteristics, that exercises were applied by extracting medium tension for all exercises used.

1. The first training unit was conducted on Monday (4 March 2019) after pre-tests.

2. The researchers prepared training exercises after taking the opinion of the experts to prepare a set of exercises for ability, fitness and balance.

3. Through these exercises the researchers aim to improve fitness and balance by using skill training using body weight.

4. Applying the exercises took eight weeks at the rate of three training units per week which are (Monday, Wednesday and Friday), the total time of the training unit was (25-40 minutes) taking into account the gender, age, training age and physical capabilities of the study sample.

Table (3) shows SDs. and means X of pre and post-tests for some skillful tests, motor abilities, calculated T value and the significant level of the experimental group.

No.	Abilities and Skills	Measurement Unit	Pre-test		Post-test		Sig.	Significance Level
			Mean X	SD.	Mean X	SD.		
1	Handstand	degree	3,25	0,50	6,75	0,95	6,48	sig.
2	Fitness	number	5,50	0,57	8,75	0,95	5,81	sig.
3	Imbalance	Sec.	15,75	1,70	23,50	1,29	7,24	sig.

View and analyze the results of pre and post-tests of motor and skill abilities in the experimental group:

4. The number of training units was (24).

6. Identify the aim to be reached through each training module.

7. The ratio ripple factor was 2-1.

8. The researcher supervised the special exercises and the training units were applied to the experimental group by the trainer.

9. The researcher used exercises in the main section.

10. The researcher used the method of training and repetition.

11. The researcher started applying training units in the special preparation period.

Post-Tests:

The researcher conducted tests for the sample of the study on Saturday (7/5/2019) to test the motor and skill abilities, after the expiry of the period of the exercises and in the same method of pre-test, the researcher was keen to prepare the post-tests similar to pre-tests in terms of spatial and temporal conditions as much as possible.

Statistical Methods:

The data was processed by a computer using the Statistical Package for the Social Sciences (SPSS 24), whereas the researcher used the following statistical methods:

Show, Analyze and Discuss the Results of the Study:

Presentation and analysis of the results of pre and post-tests of motor abilities and handstand skills in the control group:

Table (4) shows SDs. and means X of pre and post-tests for some skillful tests, motor abilities, calculated sig. value and the significant level of the experimental group.

No.	Motor Abilities and Skillful	Measurement Unit	Pre-test		Post-test		Sig.	Significance Level
			Mean X	SD.	Mean X	SD.		
1	Handstand	degree	3,50	0,57	8,25	0,50	12,43	sig.
2	Fitness	number	5,75	0,50	12,25	0,95	12,03	sig.
3	Imbalance	Sec.	16,25	0,95	28,75	0,95	18,46	sig.

Showing, analyze and discuss the results of the post-tests of the motor abilities and handstand skill for in the control and experimental groups:

Table (5). Shows SDs. and means X of post-tests for motor abilities and handstand skill of the experimental and control groups

No.	Motor Abilities and Skillful	Measurement Unit	Pre-test of the control group		Post-test of the experimental group		T	Sig.	Significance Level
			Mean X	SD.	Mean X	SD.			
1	Handstand	degree	6,75	0,95	8,25	0,50	2,77	0,03	sig.
2	Fitness	number	8,75	0,95	12,25	0,95	5,17	0,00	sig.
3	Imbalance	Sec.	23,50	1,29	28,75	0,95	6,53	0,00	sig.

Discuss the results of the Test of the Two Control and Experimental Study Groups:

Through the tables (3,4 and 5), the researchers believe that the training program used by the trainer has affected the members of the sample of the control group, and that the development that occurred in (motor abilities, skillful) of the members of the control group as a result of continuing training, feedback and commitment on weekdays All helped to develop and apply the training program prepared accurately, according to his style, in addition to his choice of exercises that play a role in the development, it is clear that the physical tests in the control group got evolved through the observation of the arithmetic means (X) but did not reach the significant similar to what happened in the experimental group, the researcher believes through these exercises that motor

abilities have been developed clearly although the development that occurred to the control group due to the continuation of training and exercises used by the trainer. The use of special exercises from the experimental group only in the main section of the training unit had a clear impact in the development of motor abilities as the main section contained special exercises prepared by the researcher which served as a new way to remove the boredom that dominated the players as a result, the use of exercises using assisting tools, as well as the use of the method of training with the weight of the body, which has had a great impact in the development of motor abilities as it led to the rush of players to perform their exercises seriously and with great interaction as a result of pleasure in the performance of their own exercises, that the association of abilities Skills are a necessary and important factor in creating a fully-

fledged player. We also note a great improvement in the development of fitness and the researcher also attributes this to the diversity in exercises that have given great benefit to most of the muscles of the player's body and to the process of linking movements together by consensus and agility and its use for it whether in the general or private direction, which led to stability and adjustment on the performance of exercise and the constant renewal of the motor path and compatibility between muscles involved in performance, concentration, motor binding, motor control. We also note an improvement in balance and the researcher may attribute this to the use of the experimental group and its application of exercises that worked on the development of this characteristic and the ability of these exercises to absorb the weight of motor weight with the organization of muscle tension, body weight, reaction of concentration and acquisition of the art of motor performance taking into account the lifting.

Conclusions

The researcher found out the following conclusions:

- 1- The special exercises that used assisting tools have an active role in the development of motor and skill abilities in the experimental group.
- 2- Using the tools to assist in the process of improving the performance of some skills which contributes to saving time and effort for the trainer and the player.
- 4- The experimental group has surpassed the control group, which applied special exercises in all the study variables that is significantly and clearly.

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Conflict of Interest: None to declare.

Ethical Clearance: All experimental protocols were approved under the University of Thi-Qar, Iraq and all experiments were carried out in accordance with approved guidelines

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