

# **THE EFFECTIVENESS OF TRAINING THROWING SHOT PUT USING TWO EXPERIMENTAL METHODS OF TRAINING – TRAINING AND TRADITIONAL, STUDENTS OF PHYSICAL EDUCATION AT THE UNIVERSITY OF YARMOUK, JORDAN**

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## **Abstract**

The aim of this study is to determine the effectiveness of two methods of shot put teaching: traditional and training, with students of athletics at the Faculty of Physical Education and the effects of these techniques on the overall results in throwing shot put and the development of some physical properties. Two groups of students of the Faculty of Physical Education were involved (20 students). Each group consisted of 10 students. The results showed that there were significant statistical differences between the two measurements before and after the experiment in each group, showing physical development of abilities and the results of throwing shot put. After the experiment, between two groups of indicators were noticed differences.

**Keywords:** effectiveness, throwing, shot put, experimental methods, training, traditional

## **Introduction and Importance of the Study**

Communication of scientific progress of physical education and the development of technology takes place in the various fields of sports science, planning and learning styles. The student is in the focus of the educational process and represents its foundation. The development of students' abilities is the main purpose of teaching. Therefore, educational institutions should pay special attention to the student (Davis, 1971), using educational technology which is a transfer of theoretical education into practice. According to Inayat Abdul Fattah and Abbas (1987) the effectiveness of the educational process reflects in selecting the most appropriate methods and techniques to help students achieve their goals. The point is to find the best training methods that can help teachers to provide students to achieve educational goals. Moston and Ashor (1994) argued that learning is a decision divided into individual and collective learning on the steps and stages of the lesson. Kilani (2003), Derry (1999) and Derry and Ahmed (1987) argued that it is possible to use more than one method in one lesson.

## **The Value of Research**

To determine the best way of throwing shot put in the core curriculum of athletics at the Faculty of Physical Education at Yarmouk University in Jordan.

**The research problem:**

1. Effective use of the two teaching methods (traditional and training) for training throwing shot put and their influence on some physical properties.
2. To determine the best method for learning throwing shot put.

**Hypothesis:**

1. The existence of statistically significant difference between measurement results before and after the experiment, and the effectiveness of teaching methods (traditional and driving range) on certain physical properties and results in throwing shot put.
2. The existence of statistically significant differences between the measurement results of the following two methods for each group.

The course of study:

The researchers used an experimental approach to learning. Two groups were created, one was based on the traditional method, and the other on training.

**The population of subjects:**

None of the subjects had not previously dealt with throwing shot put. Subjects were divided into two groups of 10 people. The first group used traditional method. The second used the training method of teaching. It should be noted that all of the students were under the unified leadership of the researchers with specialized assistants in athletics.

The average values and variations in the effectiveness of two methods during examination of training (indicated by "T")

	Technique	Number	The average value	Deviations	"T"	Degree of freedom	The static value
Age / year	Training	10	20.05	665.	1.311	18	206.
	Traditional	10	19.65	682.			
Height / cm	Training	10	163.85	3.370	998.	18	331.
	Traditional	10	66.20	5.735			
Weight / kg	Training	10	66.20	8.414	718.	18	482.
	Traditional	10	63.30	9.612			
The flexibility of the body	Training	10	7.80	4.315	935. 1-	18	069.
	Traditional	10	11.70	4.692			
Throwing medical ball 1kg	Training	10	4.34	497.	068.-	18	947.
	Traditional	10	4.36				
Jumping from a place / cm	Training	10	1.64	951.	739.	18	470.
	Traditional	10	1.41	176.			
Body Balance / sec	Training	10	2.22	412.	378. 1-	18	185.
	Traditional	10	2.58	713.			
The results throw throwing	Training	10	5.37	652.	1.986	18	062.
	Traditional	10	4.65	943.			

Table (1). There is no statistically significant differences at the level of  $\leq 0,05$  between the two groups and both the traditional and training method indicate the equality of the two groups in these variables.

Ways of implementation of the study:

- Measure up experiment was carried out to study for each group in 09/20/2012. It took time to study for six weeks, three times a week, teaching hour (50 minutes).
- After the experiment, measurements took place on 3/11/2012 according to the core curriculum.

**Results and interpretation:**

The results are related to the first hypothesis: “The existence of statistically significant difference between measurement results before and after the experiment, and the effectiveness of teaching methods (traditional and driving range) on certain physical properties and results in throwing shot put.”

Table (2) shows the averages and standard deviations of the T-test for the traditional method.

	application	number	The average value	deviations	“T”	degree of freedom	The statistics
<b>Weight / kg</b>	before	10	63.30	9.612	3.653	9	005.
	after	10	61.86	8.918			
<b>The flexibility of the body</b>	before	10	11.70	4.692	6.919-	9	000.
	after	10	16.10	5.666			
<b>Throwing medical ball 1kg</b>	before	10	4.36	902.	5.676	9	000.
	after	10	4.91	880.			
<b>Long jump</b>	before	10	1.41	176.	8.318-	9	000.
	after	10	1.55	154.			
<b>balance</b>	before	10	2.58	713	3.892-	9	004.
	after	10	3.02	744.			
<b>The results of shot put</b>	before	10	4.65	943.	8.418-	9	000.
	after	10	5.69	967.			

Table (2). The existence of statistically significant differences in the level of significance ( $\alpha \leq 0,05$ ) between the average measurements before and after the study. Students of the traditional method have shown positive results after a program of lessons.

To determine the differences before and after the training method, there is a table number (3) that illustrates this:

	Appointment	Number	The average value	Deviation	"T"	Degree of freedom	Statistical significance
Weight / kg	Before	10	66.20	8.414	322.	9	755.
	After	10	65.98	7.558			
The flexibility of the body	Before	10	7.80	4.315	3.000-	9	015.
	After	10	9.80	5.371			
Throwing medical ball 1kg	Before	10	4.34	497.	6.771-	9	000.
	After	10	4.64	512.			
Long jumping from a place	Before	10	1.64	951.	792.	9	449.
	After	10	1.40	107.			
balance	Before	10	2.22	412.	2.982-	9	015.
	After	10	2.43	356.			
Result Shot Put	Before	10	5.37	652.	4.993-	9	001.
	After	10	5.60	596.			

In Table 3, there is a statistically significant difference at a significance level ( $0,05 \leq a$ ) between the average measurements before and after the study. Students of the training method showed positive results after a program of lessons.

The results are related to the second hypothesis: "The existence of statistically significant differences between the measurement results of the following two methods for each group."

To verify the validity of this hypothesis, average values, standard deviations and T-test for variables of research have been used, to find the difference between two measurements of two methods of teaching and Table (4) illustrates this.

Average values and variations in the effectiveness of two methods during during examination of training (indicated by "T") after the experiment.

	Technique	Number	The average value	Deviation	"T"	Degree of freedom	Statistical significance
Weight / kg	Training	10	65.98	7.558	1.115	18	280.
	Traditional	10	61.86	8.918			
The flexibility of the body	Training	10	9.80	5.371	2.552-	18	020.
	Traditional	10	16.10	5.666			
Throwing medical ball 1kg	Training	10	4.64	512.	836.-	18	414.
	Traditional	10	4.91	880.			
Long jumping from a place	Training	10	1.40	107.	2.514-	18	022.
	Traditional	10	1.55	154.			
Balance	Training	10	2.43	356.	2.240-	18	038.
	Traditional	10	3.02	744.			
Result Shot Put	Training	10	5.60	595.	245.-	18	809.
	Traditional	10	5.69	967.			

In Table 4, a statistically significant difference in the level of significance ( $0,05 \leq a$ ) is missing in all indicators of two groups.

### **Conclusions:**

With the help of our teaching methods following results were achieved:

1. The group of students who used the traditional method showed a significant improvement in the level of physical abilities as well as the results in throwing shot put.
2. Group of students who used the training method showed a significant improvement in the level of physical abilities as well as the results in throwing shot put.
3. Two groups of students (traditional and training) showed no statistically significant differences between the two groups of all indicators of research.

Recommendations:

1. Use the traditional method of learning the skills in athletics.
2. A training method can be used in the training of athletes.
3. Use of both methods (traditional and training) in athletic education of all students.

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