

## The effectiveness of a training programme using mini-games on the development of shooting skills in under-13 football players

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### Abstract:

The study aimed to identify the effectiveness of the training program used in mini-games in developing the shooting skill of football players under the age of 13. In this study, the researcher used the experimental approach. The research sample consisted of 16 players under the age of 13, divided into two control groups of 8 players and one experimental group of 8 players. The researcher designed a training program through mini-games for the purpose of developing the accuracy of payment. For the purpose of statistically processing the data, the SPSS program was relied on. Finally, the researcher reached a set of results. The results of the proposed training units showed statistically significant differences between the control and experimental samples in favor of the experimental sample in testing the accuracy of payment.

**Keywords:** Training program, mini-games, shooting skill, category less than 13 years old.

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### Introduction:

Football is the most popular sport in the world that appeals to players and non-players of different categories and ages. It is the most widespread sport despite the cultural, social and economic differences between the countries of the world, where it takes place between two teams. Due to the fame reached by this sport, teams race to

bring the best coaches with high efficiency and experience in order to improve and develop all aspects (physical, skill, psychological, planning).

The process of skill preparation in football aims to teach the basic skills used by the player during matches and competitions and try to master and stabilize them to achieve the highest levels.

Basic skills are one of the main pillars of the daily training unit, as they are considered a basic base for the game, and without mastering them, the player will not be able to carry out the plans entrusted to him through the duties of the position he occupies in the different playing lines during the game. (al-Sayed, 2002, p. 159)

To get the player to the sports format, there are several training methods that lead to achieving the best levels, as these methods vary according to the conditions and level of the player, most notably continuous training - interval training - repetitive training - circular training. Another method of training is the integration of games through the training unit, most notably small games, which are often used in childhood because they are predominantly fun and competitive.

Small games are simple organized games in which more than one individual participates to compete according to marching rules that are not limited to a certain age, gender or physical level and are predominantly recreational and entertaining and may be used with or without tools or devices. (al-Khuli, 1994, p. 171)

Mohamed Atiyat Khattab sees it as a multiple set of running games, ball games, or those practiced using small tools, agility games, etc., of various games, which are characterized by the character of fun, pleasure, and competition with the flexibility of their rules, the lack of their tools, and the ease of practicing them, and repeating them after some simple clarifications. (Atiat, 1990, p. 163)

Mohammed Mustafa Al-Sayeh says that it is one of the means of preparing the young person well, as it contains the elements of physical fitness, which are strength, speed, agility, flexibility, balance, endurance, because it contains games that test the ability of the player to restore the basic principles of small games. (Al-Sayeh, 2007, p. 27)

### **Study questions:**

- Are there statistically significant differences between the control group and the experimental group in the pre-measurement for the shooting skill of football players under the age of 13?
- Are there statistically significant differences between the control group and the experimental group in the post measurement for the reimbursement skill for a category less than 13 years?

- Are there statistically significant differences between the pre and post measurement of the experimental sample in relation to the payment skill for a category less than 13 years?

### **Study Hypotheses:**

- There are no statistically significant differences between the control group and the experimental group in the pre-measurement for the shooting skill of football players under the age of 13?

- There are statistically significant differences between the control group and the experimental group in the post measurement for the reimbursement skill for a category less than 13 years?

- There are statistically significant differences between the pre and post measurement of the experimental sample in relation to the payment skill for a category less than 13 years?

### **Research objectives:**

- Identify the effectiveness of the training program used in mini-games in developing the shooting skill of football players under the age of 13.

### **Terminology of Study:**

#### **Training module**

The training unit is the smallest component in the organizational structure of the training process in general. The training unit contains a set of training – loads – and is directed towards achieving individual duties that are similar in their repeated or varied contents. (al-Basati, 1998, p. 127)

#### **Mini-games**

Mini games can be defined as team sports, conducted in small play areas with reduced number of players, changing rules, and technical constraints, these games are designed to mimic the technical, tactical, physical, and physiological requirements of a particular activity (Antonio, Vigotsky, & Laver, 2019)

#### **Shooting Skill:**

Every attempt to send the ball towards the opponent's goal is considered a shot and the strike must be properly aimed (Garel, 1983, p. 11)

### **Previous Studies:**

1- Researchers "Nasseri Salah Al-Din and Essam Samir" "2021" conducted a study entitled "Effectiveness of a proposed training program in mini-games in the

development of (average) passing accuracy among football players under 15 years old. The study aimed to identify the effectiveness of a proposed training program in mini-games in the development of medium passing accuracy. Football players under 15 years old. From the field and methodological side, the study was conducted on the players of the Constantine Regional Football Association clubs, who represent the research community. The experimental sample was selected in ES Setif Club and Setif Union Club as a control sample. The experimental approach was also followed as a tool for the study and the medium passing accuracy test was used. For the purpose of statistical data processing, the statistical package (spss) program was used to process the data. The results of the study resulted in the effectiveness of training in mini-games in the development of medium passing accuracy among football players. (Nasri & Essam, 2021)

2- The researchers "Malik Adel and Mazrou Al-Saeed" "2023" conducted a study entitled "The impact of a proposed training program in mini-games in improving the characteristic strength of speed and accuracy of shooting among football players under 21 years old". The study aimed to identify the impact of a training program in mini-games on improving the characteristic strength of speed and accuracy of shooting among football players under 21 years old. The experimental approach was used and the study sample consisted of 24 players, which were chosen in a deliberate way. The study consisted of two football teams, the Mouloudia Constantine team and the Al-Kharoub Association team, each consisting of 12 players, where the statistical data was processed spss. The research results showed that the proposed training program has a positive impact in improving the characteristic strength of speed and accuracy of shooting in a category less than 21 years old for football. ( Malik & Mazroua, 2023)

### **The method used:**

In this study, the researcher used the experimental approach to suit the nature of the study.

### **Study Sample:**

The study sample consisted of 16 football players under the age of 13, divided into two groups, one experimental and one control, each group consisting of 8 players.

### **Study Tools:**

#### **Shooting accuracy test:**

The test was adopted, which stipulates that the player shall take 3 fixed kicks towards the goal outside the area of 30 meters, and it is noted that the distance is proportional

to the age of the player (the test was adapted to 15 meters), and it takes into account the distribution of the shot so that it includes the different sides to shoot towards the goal and the shot is made freely by the player without the intervention of the coach. This test aims to reveal the skill of the player in the accuracy of shooting towards the goal.

**Tools used:** football field, footballs, cones, whistle.

**Purpose of the test:** Measuring accuracy of the aiming technique

**Tools used:** football field, footballs, cones, whistle

**Evaluate the accuracy of players' shots using the following method:**

(Recording: Adding the three attempts).

In goal ball: 3 points.

Beam touch ball: 2 points.

Out of goal ball: 0 points.

**Steps to design the proposed training program:**

**Steps to implement the proposed training program:**

There are many different perspectives in the development of training programs in the field of football, which entails determining the best steps to plan the training program under research, which can be drawn from some specialized scientific programs and previous studies that preceded the development of the training program and are as follows:

9-2-Objectives of the training program: The two researchers designed a program aimed at improving the shooting skill under research for football players under (13) years through pre and post-tests of the control and experimental samples.

**Steps to develop the training program:**

- Determine the overall objective of the proposed training program.
- Clearly define the objectives of each stage of preparation.
- Ensure the safety and health of players The availability of tools and devices required in the implementation of the proposed program and ensure their validity.
- Taking into account the availability of security and safety factors during the application of training and tests.
- Availability of measurement tools and completion of missing ones.

- The proposed training program should achieve the objectives for which it was set.
- Follow the principles of different sports training to suit the scientific foundations of modern sports training (taking into account individual differences, gradualism, adaptation, integration, privacy , inclusiveness) in developing the contents of the proposed training program and in the method of implementation to avoid any injuries that prevent the completion of the proposed training program.
- Divide the sample members into two groups according to the levels of pre-test results.
- The training load scores in terms of intensity fit the intensity with the training periods and the level of the players.
- The duration of the proposed training program.
- Diversity of content and flexibility of the program.

#### **He put together the training program,**

- The duration of the program is 8 weeks.
- Choosing warm-up, cool-down, and program exercises.
- The researcher took into account the principle of privacy, gradient in pregnancy, gradual rise in pregnancy and adaptation when developing the program.
- The concluding part is calming and relaxation exercises to return the organic organs to the normal state and recovery, and to reset the body to receive the next skillful and technical activity.

#### **Statistical methods:**

Statistical data were processed using SPSS software

#### **Presentation and discussion of the results of the first hypothesis:**

**There are no statistically significant differences between the control group and the experimental group in the pre-measurement relative to the accuracy of the payment skill.**

**Table (01): shows the results of the differences in the results of the pre-test of the two research samples in the shooting accuracy test (n=16).**

Testing	Control Sample		Experimental sample		T Calculated	"sig" value	Significance level	Df	Statistical Significance
	Mean	Std-Deviation	Mean	Std-Deviation					
Shooting accuracy	5.62	1.76	6.12	1.64	0.58	0.72	0.05	14	Statistically insignificant

**Significant when sig value is less than or equal to 0.05**

**Comment on the table:**

It is clear from Table (01), which shows the results of the differences in the pre-test of the control and experimental samples in the shooting accuracy test, that there are no statistically significant differences between the control and experimental samples, as the value of 'sig' reached 0.72, which is greater than the significance level of 0.05 at a degree of freedom of 14.

**Discussion:**

The results related to the first hypothesis showed through the tables that there are no statistically significant differences in the pre-measurement of the control and experimental groups, as it is noted through the results of these that there is homogeneity and equality between the control and experimental research samples in the skill of payment. The researcher attributes the absence of differences to the fact that the control and experimental research samples have the same level of skill under study, which makes us judge the effectiveness of the proposed training program in the next step.

**Presentation and discussion of the results of the second hypothesis:**

**Table (02) shows the results of the differences in the results of the post-test of the two research samples in the shooting accuracy test (n=16).**

Testing	Control Sample		Experimental sample		T Calculated	"sig" value	Significance level	Df	Statistical Significance
	Mean	Std-Deviation	Mean	Std-Deviation					

Shooting accuracy	5.87	2.16	8.12	0.83	2.74	0.02	0.05	14	Statistically significant
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**Significant when sig value is less than or equal to 0.05**

**Comment on the table:**

It is clear from Table (02), which shows the results of the differences between the control and experimental samples in the post-test, that there are statistically significant differences between the control and experimental samples the post-test in the shooting accuracy test, where the value of 'sig' is 0.02, which is less than the significance level of 0.05 at the degree of freedom 14, and when comparing the Mean of the control sample, which reached 5.87, which is less than the Mean of the experimental sample, which reached 8.12.

**Discussion**

Based on the previous analysis and the results of the multidimensional test of my research sample as shown in the table above, it is clear that there are significant statistically significant differences between the control and experimental samples in favor of the experimental sample, which obtained the highest mean score. This means that the individuals in the two samples are not equal in the shooting test, but rather different in level due to the clear superiority of the individuals in the experimental sample who appear to be better and superior in shooting skills than those in the control sample. This is attributed by the researcher to the effectiveness of the independent variable in the proposed training units to which the experimental sample was subjected.

**Presentation and discussion of the results of the third hypothesis:**

**Table (03): The results of the pre- and post-test of the experimental sample in the reimbursement test (n=8).**

Testing	Pre-test		post-test		T Calculated	"sig" value	Significance level	D f	Statistical Significance
	Mean	Std-Deviatio	Mean	Std-Devi					

		n		ation					
Shooting accuracy	6.12	1.64	8.12	0.83	4.32	0.00	0.05	07	Statistically significant

**Comment on the table:**

It is clear to us from Table No. (03), which shows the results of the differences of the experimental sample in the pre and post-test , that there are statistically significant differences between the pre and post measurement of the experimental sample in the payment accuracy test, where the value of "sig" was 0,00, which is less than the level of significance 0.05 at the degree of freedom 14, and when comparing the Mean of the pre-test, which was 06.12, which is less than the Mean of the post- test , which was 08.12

**Discussion:**

Based on the results obtained in the table above, it becomes clear to us that there are differences between the pre-test and post-test of the experimental sample in the accuracy shooting skill test among football players under the age of 13. The researcher attributes these differences to the effectiveness of the proposed training program, which has contributed to enhancing the shooting accuracy of this group. The program, based on scientific foundations, especially in this age group with its specific characteristics in growth and learning stages, focusing on developing a specific skill during training sessions undoubtedly enables the player to acquire this skill. The results of the current study are in line with the study conducted by (Majrali, 2023), which confirmed the effectiveness of a training program using small games in developing some basic skills in the research sample. This was also confirmed by the study conducted by (Essam, 2019)

**Inferences:**

- Based on the results presented by the study, we can draw the following conclusions:
- The results of the proposed training units using small games to develop some basic skills showed a positive impact and a tangible improvement in shooting accuracy test for the experimental sample.
  - The results of the proposed training units showed statistically significant differences between the control and experimental groups in favor of the experimental sample in the shooting accuracy test.
  - The study results also indicated an improvement in the control sample using the traditional program, but to a lesser extent than the experimental sample that used the proposed training units.

- The use of small games positively affects the development of some basic skills in football.

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