

## ENDURANCE TRAINING IN BOTH, CONTINUOUS AND CASUAL TRAINING METHODS BY GAMES, FOR FOOTBALLERS UNDER 18 YEARS

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### ABSTRACT

*The research aims to develop the endurance characteristic of football players, by means of continuous training, through games. The experimental method was used as the most appropriate for such research. The research sample consisted of 20 players from the Esperance Mostaghanem team as an experimental sample and 20 players from the Widad Mostaghanem team as a control sample. The researchers have assumed that the inclusion of playing in the continuous training method positively affects the development of endurance for footballers under 18 years. After obtaining the results of the tribal and post-tests and statistically treating them, it was found that there are statistically significant differences in favor of the post-tests and for the benefit of the experimental sample, which indicates that continuous training through games positively affects the development of endurance for football players among the juniors. This research can be extremely important in terms of scientific and practical aspects. On the scientific side, it can be considered as a contribution to enriching and valuing the university library in order to assist trainers and researchers, On the practical side, perhaps the results of this study may be used to modify the training image for this age group, and to follow appropriate scientific methods in building training programs focused on developing physical characteristics, for the good and global preparation of the middle class, according to the characteristics, growth requirements and physiological adaptations of body parts for this age group. The researchers recommended that training methods should be diversified and rely heavily on mini-games for training.*

**Keywords:** Continuous training, endurance, games.

### 1. INTRODUCTION

Football has become one of the most widespread team games, with enthusiasm, excitement and suspense among its practitioners and fans everywhere. The game has evolved considerably from what it was, and this development imposed on the players many defensive or offensive planning duties, The convergence of the physical, skill and planning levels of the players has made it difficult to perform some skills and duties during the game, which prompted the coaches to pay attention to research and studies that will develop the level of the game as well in the use of various methods of training that help to improve the level of performance physically and skillfully (Brandes & Elvers, 2017)

The goal of physical preparation in football is directed towards developing physical attributes (strength, endurance, speed, flexibility and agility) which defines (Beato & Schena, 2014) as the important physical characteristics necessary for a football player (Bernard

Turban, 1998, *p.*28) and these elements, despite the possibility of separating them from each other theoretically, we see them as a homogeneous unit that complement each other In the field, each one influences and is affected by the other points, but we may not find the five characteristics of integration for many coaches (Casanichana & Dellal, 2013).

Hanafi Mahmoud Mokhtar indicates that the coach must work to develop physical attributes and install basic skills in football so that they are performed accurately and thoroughly during the match and performed in conditions similar to the conditions of the match such as combined exercises with one or more colleagues (planning exercises) Likewise, matches in small groups 3 against 3 or 4 against 4 using mini pitches increase the player's ability to perform and its accuracy (Berkis et al., 2012). especially since these divisions require the player to perform a correct and rapid performance of skills under pressure of opposing players in a narrow space of the field in addition, these exercises give the player the experiences that make him economize in his efforts during the performance, with the ability to behave well and calm nerves while playing (Hanafi, 1995; Harbech et al., 2020).

Sports training has become a process directed to the advancement of the player's level through planned indicators for the purpose of developing his efficiency in the performance of the modern requirements of the football game and as a basis for building high physical fitness that qualifies him to perform the skill performance and planning duties in a more effective and positive way for what the performance requires during the game, (Christopher, Beato, & Hulton, 2016) and the motor activity of the football player during matches and training is not just a set of skills as much as it is a multi-coherent kinetic performance and on an organized relationship that takes place under a dynamic system subject to the principle of feedback (feedback), we can ensure that players' performance is maintained with a degree of stability, consistency and accuracy in the right direction of performance, especially in sudden and changing situations (da Silva et al., 2011). Mufti Ibrahim (1989) states that the success of the player's motor performance during the match depends on the degree and level of stability and consistency of his motor skills and his mastery of it, no matter how the conditions and positions of playing during the game change (Mufti, 1989).

From the aforementioned, it is clear that the development of physical attributes in competitive situations similar to what happens in matches through games is important. These exercises may help to raise the level of physical performance of players, from the foregoing and given the results of previous studies and researches. For the researcher's modest field experience, the researcher saw specifying the subject of his studies in the direction of knowing the extent of the impact of continuous training by games as qualitative exercises similar to what happens in the matches on developing the endurance character of footballers under 18 years, (Bondarev, 2011) and therefore, aims to identify the extent of continuous training through games that affects the development of the endurance character of footballers U18; as well as to designing training units with continuous training by games to develop the endurance character of the footballers U18.

### **1.1 Research Hypotheses:**

The main hypothesis was stated as "continuous training through games positively affects the development of the endurance character of footballers under 18 years"; and the Sub-hypotheses were stated as "there are statistically significant differences between the pre and post-tests of the experimental sample in the tolerance characteristic under consideration and in favor of the post-test", and "there are statistically significant differences between the post-tests between the experimental sample and the control sample and in favor of the experimental one".

This research can be extremely important in terms of scientific and practical aspects. On the scientific side, it can be considered as a contribution to enriching and valuing the university library in order to assist trainers and researchers, On the practical side, perhaps the

results of this study may be used to modify the training image for this age group, and to follow appropriate scientific methods in building training programs focused on developing physical characteristics, for the good and global preparation of the middle class, according to the characteristics, growth requirements and physiological adaptations of body parts for this age group.

## 2. METHODS AND MATERIALS

### 2.1 Research Overview

The researcher chose the experimental approach, due to the nature of the problem posed, and aimed at knowing the impact of the method of continuous training through games in developing the endurance quality in football, by applying it to an experimental sample.

### 2.2 Research Sample

The researcher chose the research sample intentionally, represented in Pilot sample and Control Sample. Pilot sample includes 20 players from the Esperance Mostaganem team, whereas control sample includes 20 players from the Widad Mostaghanem team.

Parity and homogeneity between the two samples were taken into account in the variables of age, weight, height, and some physical and skill characteristics.

### 2.3 Research Fields

The experiment was conducted during the 2018-2019 sports season at Major Faraj Stadium-Mostaganem. The research sample included 40 players, which were distributed into two groups. Twenty players represent the experimental sample that the proposed training program was applied to; and remaining 20 players represent the controlling sample that was left training under the supervision of its coach.

### 2.4 Search for Tools

The tools that the researcher uses to collect data related to the subject of the research were considered one of the most important steps and the basic and necessary axis in the study (Atta Allah, 2009 p.75), and among the tools that the researcher used is Cooper test.



Figure 1: Shows the test of mini cooper 6' mns

The other research tools which were used in this research were -Personal interviews, Physical and skill tests, Exploratory experience, Sports equipment which consisting of 20 legal soccer balls, 30 sports pads, Plastic measuring tape, Medical scale, 02 stopwatches, Whistle, and Chasubles.

## 2.5 Statistical Means

To reach at the final results of the study different statistical tools were used which are - Arithmetic Average (Saad & Allah, 1991), Standard deviation (Naji & Shamel, 1992), Pearson Simple Correlation Coefficient (Mokadem, 1993), Self-honesty, *t*-student test for two linked samples, and *t*-student test for two unrelated samples (Mokadem, 1993).

## 2.6 Scientific Foundations of the Test

**2.6.1 Test stability:** The researcher applied the tests to a sample of 10 players, five from the Esperance Mostaganem team and five from the Widad Mostaghanem, and after a week, under the same conditions, the test was repeated on the same sample. After obtaining the results, the student used the Pearson correlation coefficient and after the detection in the semantics table of the correlation coefficient at the significance level 0.05 and the degree of freedom 09 he found that the calculated value for each test is greater than the tabular value (0.60) which confirms that the tests are of a high degree of accuracy and stability.

**2.6.2 Test validity:** In order to verify the validity of the test, the student used the self-validity coefficient as the validity of the standard scores with respect to the real scores that have been found from the impurities of the measurement errors, which is measured by calculating the square root of the test stability coefficient (Ben Goua, 1997)

**2.6.3 Test objectivity:** The objectivity of the test is not being affected, and the same results are obtained, i.e. who is the arbitrator, and indicates that to inform the experts and specialists and their approval unanimously on the tests and their vocabulary, it is beyond doubt and interpretation. Also, the test battery used in this research is easy, clear, non-interpretation, and far from self-coronation, as the vocabulary of the test battery is among the goals of the training unit, such as a speed test, and a ball hitting test for the farthest distance, for this reason, and the vocabulary of the test is very objective.

## 3. RESULTS

In order to make objective judgments about the nature of the homogeneity existing between the experimental and control samples of research through some variables and Half-Cooper test for endurance, the researcher worked on treating the set of raw grades obtained by using the student *t* test. The results are presented in the following table 1.

**Table 1: Presentation of the results of the triable tests for the two research samples**

Variable	Unit of measure	Experimental sample		Control sample		<i>t</i> value
		Mean	SD	Mean	SD	
Age	Number	17.20	0.64	17.22	0.96	0.02
Height	Cm	152.00	1.30	150.05	1.19	0.90
Training age	Number	6.50	8.87	6.45	8.71	0.72
Cooper test 6'	M	2018.70	5.6	2020.00	3.76	0.65

Tab  $t_{(0.05)} = 1.96$

It is clear from the Table 1, that there are no differences between the experimental and control groups found for all mentioned variables at pre-test stage, as the calculated value of *t* for all variables are less than the tabular *t* value at 0.05 significance level with 38 degree of freedom. This results confirms the equality and homogeneity of the two groups before conducting the experiment.

**Table 2: Presentation of the results of the pre- and post-tests of the two research samples on the variable of “Half Cooper 6 Min Endurance test”**

	Pre-test		Post-test		t value
	Mean	SD	Mean	SD	
Experimental Sample	2018.70	5.6	2050.00	3.76	6.43*
Control Sample	2020.00	4.97	2023.76	3.12	1.51

Tab  $t_{(0.05)} = 1.72$

From the above Table 2, it is notice the experimental sample having achieved the Half-Cooper test for endurance. The calculated value of  $t$  was found greater than the tabular  $t$  which is significant at 0.05 level of significance with 19 degree of freedom. This means that the difference between the pre-test and the post-test is a statistically significant difference in favor of the post test.

The researcher attributes the reasons for this to the fact that “all elements of the team’s numbers must be integrated and all work in one line to achieve the main goal of its work, which is the good appearance of the team and obtaining a satisfactory position according to its conditions in competition in which they participate” (Clermente, & Mendes, 2014). And physical preparation aims “to develop the basic physical characteristics and try to improve them in order to reach the best possible level in football through the various exercises that are planned and implemented by the coach on the field (Al-Wahsh – Muhammad, 1994), as well as the organizational foundations have a great importance in sport training (Hussain, 1987). So training should be appropriate during field training because it helps to build the foundations of technique and improve physical traits” (Clermente, & Mendes, 2014).

#### 4. DISCUSSION

The researcher collected data using this with the tools and means of data collection used in this study, depending on this data and starting from the presentation, analysis and discussion of the research extracted from the statistical analysis of the results of the research sample, through examining the most important results it seems clear that the research sample has achieved significant differences in the arithmetic mean for the pre and post tests, which are in favor of the post tests, as shown in the tables shown above.

The aim of the present study was to investigate the effect of a 08-week small games training intervention on physical fitness performance measures during the in-season. The main findings revealed that the training intervention significantly improved players’ repeated endurance ability. It appears from our findings, that the per iodized small games training intervention could have a positive effect on both aerobic systems during the in-season. In addition to the maintenance of aerobic fitness, to our knowledge this study shows that young soccer players are more motivated during small games than performing physical training. This may be due to the fact that the activity in small games resembles real football, which may motivate players to strive to achieve and experience greater feelings of competence than with it.

This is relevant in training because the positive emotion of enjoyment has been shown to be an important ingredient of motivation in youth and elite sports (Casamichana, 2010). In addition, athletes who enjoy sports the most are the ones who report being more intrinsically motivated specifically in young soccer players, psychological need satisfaction provides the essential ingredient for self-determined motivation. Therefore, in adolescents the small games training may provide an activity stimulus that has potential psychological benefits that can help football coaches at any time during the season.

## 5. CONCLUSION

Within the limits of the research procedures, and in light of its objectives and through the statistical analysis of the results obtained, the following conclusions have been reached: There are non-significant differences for the results of the tribal tests between the experimental and control groups in the evaluated tests, and this indicates the level homogeneity before starting the field experiment.

The control and experimental samples achieved a positive development between the pre and post tests in the endurance tests, but the development in the control sample was natural as a result of the practice, while the development in the experimental sample was a relatively clear development and the difference between the two averages shows the percentage of difference.

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