ISSN: 2392-5442 ESSN : 2602-540X		Sport system journal
V/12 N/02 Year/2025		International scientific journal published by: Ziane Achour –Djelfa- Algeria
P 431 - 446		Received: 2025-07-22 A ccepted: 2025-08-22

The Effect of Using Small Sided Games (SSG) with a Terrain Delimiter in Developing the most Important Physical Abilities of Football Players

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Abstract:
The study aimed to identify the effect of using small sided games (SSG) with a terrain delimiter in developing the most important physical abilities of football players. The sample of this study consisted of 18 players . It was then divided into two groups, 09 players for each group. In this study, we relied on the experimental method as it suits the subject. Afterwards, then performed the post-tests ,and the results revealed that there were statistically remarkable
differences at significance level of 0.05 for the experimental group , (The use of small sided games (SSG) with a terrain delimiter contributes to the development of the most important physical qualities of football players)
Keywords : small sided games (SSG), physical qualities, football, terrain delimiter.

marouf said

1. INTRODUCTION AND RESEARCH PROBLEM

The developed countries have succeeded in using human minds as one of their achievements that contributed to the development that we are witnessing today, so scientists have shortened a lot of effort and time in various fields and more accurate and credible, so the degree of sincerity of the results raised the degrees that approach perfection, given that science is in a continuous development until God inherits the land and those on it, the scholars have succeeded in making many alternative minds to be used in all fields and fields. A great share in this amazing development, which facilitated the trainers and the bachelor's attendees to control the training process through the modern innovative devices that simulate the training process to control the grades of pregnancy and the development of formal and sports according to sound scientific foundations. According to the circumstances of competitions and playing cases

The field of sports training is one of the most prominent fields that affected the influence due to innovative developments and the accompanying transformations in the cognitive structure, which secreted new educational methods that made the traditional training process not valid to work in light of the cognitive and technological explosion (Fadil Diwi, 2010, p 19)

Sami Moheb Hafez (2005) believes that the rapid development that the world is witnessing now in various scientific and technological fields is based on the results of modern research and scientific inventions in various fields that benefit from modern scientific principles (Sami Moheb. 2005. p 77)

The idea of modern foot today, with its current requirements, is a clear difference from the ball at the beginning of its era, as development and progress in all the elements of the game is in the light of the creative and technological revolution made it difficult for the physical capabilities to remain as it is, so it was obligatory for those in charge of the training process to keep pace with this development in order to develop the special physical capabilities to face the requirements of modern football sport, the special physical qualities are a basic requirement for each group game It differs from one game to another, according to the nature of performance and the requirements of each game, and these requirements must be met in practicing this game so that they can progress in training and reach high sports levels **(**Imad Al -Din Abbas Abu Zaid, 2004, 159)

One of the modern methods that have been used by coaches and physical preparations in developing the capabilities of football players is to train players in

the various SSG games similar to the playing positions that are similar in their content to the nature of the football game in an effort to reach the player to the required level and support them with modern innovative and technological means to control the training process, so training in small sided games (SSG) is greatly proportional to The quality of performance in football, which features playing positions in the form of geometric shapes during the length of the play area.

Through research and investigation, the researcher wanted to identify the effect of using small sided games(SSG) organized by the Terrain Delimiter device to improve and develop the physical abilities of football players, where we noticed weakness in physical abilities, whether in antenna and anaerobics, speed, endurance, transitional speed, maximum strength, and even the fitness element of our players compared to the global reference level, in addition to the growth The mentality of not focusing on physical abilities for fear of injuries and exhaustion due to the distance from the correct scientific method in training and physical preparation, and the daily routine of physical exercises. This is why the researcher saw the importance of adding the catalyst (Terrain Delimiter) to the effective training methodology small sided games(SSG) to reach the required goals

From this standpoint, the researcher wanted to address effective scientific solutions that contribute to the advancement of our players and to be a debt for workers in the field of football training, using the SSG and its organization, the definition of the creative stadium (Terrain Delimiter) as a catalyst and a scientific tool to control the training process with the aim of improving and developing the most important physical capabilities of football players, and therefore the **following question was**:

A- What is the effect of using mini games (SSG) organized by the **Terrain Delimiter** device in developing the most important physical abilities of football players

B- Are there statistically significant differences in the results of the post-test between the control sample and the experimental sample

2. Research hypotheses :

A- The use of small sided games (SSG) organized by a **Terrain Delimiter** device has a positive impact on developing the most important physical abilities of football players.

B- There are statistically significant differences in the results of the dimensional tests between the control sample and the experimental sample and in favor of the experimental sample.

3. Significance of the study:

A- identifying the effect of using small sided games (SSG) organized by the **Terrain Delimiter** in developing the most important physical abilities of football players.

B -Knowing the differences in the results of the Post-Test between the control sample and the experimental sample

4. Definition of the most important terms used in research:

Small-Sided Games :

small sided games are exercises in which the number of players, the size of the stadium, and the rules to achieve specific training goals are modified. It can be played in various formats such as 3 against 3, 4 against 4, 5 against 5, and others.

The primary goal is to increase the participation of the players, raise the time of actual play, and increase the number of touches on the ball. These exercises also enhance the speed and intensity of play, which makes it ideal for learning and development

Terrain Delimiter device

It is a creative tool to create a playing area quickly and easily, with real lines.
The device is equipped with four rules and rubber tape, ideal for anywhere. Easily creates a 14 -meter -long stadium x 10 meters



Figure shows the image of the creative system and its field applications

Physical abilities.

An estate that athlete acquires through which his physiological devices and organs can perform their functions in a comprehensive and balanced manner (Mufti, 2004)
Method and tools:

5. Applied study:

5-1. Study curriculum:

We used the experimental curriculum and this is for the nature of the study by conducting the pre -tribe and dimensional test.

5-2. Study areas:

5-2-1. The human field:

We chose the research sample in a intentional way, and the study sample was represented in a quick –relizane team, we divided them into two equal groups, one of which is experimental with 9 players and the other controlled with the same number.

5-2-2. spatial field:
Implementation of the program and conducting tribal and post tests at the Zougari Tahar stadium in the state of relizane .

5-2-3. The time field:
The study was made from (06/06/2023 to 11/06/2023) in which the proposed program was applied and tribal and post -examiner tests were conducted.

5-2-4 Society and Study sample:

The research community consists of football players (U19) who are active in the national section of amateurs. The sample was chosen in a intentional manner represented by a rapid, relizane team less than 19 years.

6- Previous studies:

6-1 Study: Samer Mohamed Abdel - Wadah , Ahmed Al-Amin, under the title "The effect of retrieval methods (negative- positive) in small sided games (4 against 4) on the Maximal Aerobic Speed (MAS) Al-play is football less than 19 years "; field study for the club Widad Tissemsilt
Approved sample: included 09 players chosen in the random way
Used aproach: experimental
The most important results:
- The training program using small sided games with positive recovery periods in between resulted in a significant improvement in maximum aerobic speed.
- The training program using small sided games and negative recovery periods resulted in a slight improvement in maximal aerobic speed and to a lesser extent compared to the positive recovery group.
The use of positive feedback in small sided games exercises is an important and effective factor in developing maximum aerobic speed in particular and aerobic capacity in general.

6-2 Study: Malik Adel, Mazroua Said "The impact of a proposed training programfor small sided games on improving the characteristic of the distinctive strength and the skill of the accuracy of the correction of the playing football is less than 21 years old"

The approved sample: It included 24 players who were chosen in the intentional way from the Mouloudia Constantine team and the Al -Kharoub Association
Used aproach: experimental
The most important results:
The proposed training program has a positive impact on improving the characteristic of the distinctive strength of speed, and the skill of the accuracy of the correction in the category of less than 21 years of football, and the researchers recommended the adoption of **small sided games**in selecting players (the best player is the one who makes the difference in terms of taking the decision in the least possible time to find the solution in various positions)

7- Search method:
7-1 **Test:**

Ali Fahmy Al -Bik (1992) and a number of sports training scientists refer to physical requirements in football are speed - endurance - muscle strength - flexibility - fitness - speeding speed, as the researcher identified a set of tests and presented them to nominate experts in training and physical preparation and the candidate tests were as follows:

I-Endurance test "measuring the level of Maximal Aerobic Speed (MAS) "
It is a good indicator to know the readiness of the players for physical preparation and an effective way in taking into account an important principle in training, which is the individual in training
Bordeaux University Test 2 "Cazorla and Bouchet (TUBE2)
Equipment: 200m track, cones placed every 20m, 3-minute levels, 1-minute rest between levels. (The program is available on a CD with the use of a loudspeaker inside the stadium.)
Test Specifications: The test is conducted without a warm-up. The running pace and cadence increase at a rate of 1.5 km/h, while the loudspeaker automatically emits a programmed sound every 20m. The interval is estimated at 3 minutes, then resumes.
The test is regulated according to the signals. When the whistle is heard, the athlete must be near the cones. If they are more than two meters behind, the test is discontinued. The goal is to complete the greatest number of levels.

The level lasts 3 minutes, and after each level, the athlete takes a one-minute rest.

II- **Test broad jump test (explosive power).**

Performance description: The laboratory stands behind the starting line, the feet are separated and parallel

The laboratory is likely to the arms backward with bending the knees, the tendency forward a little and then fog with the fullest strength and the fullest distance possible by extending the knees and pushing the feet, with the best arms forward for each laboratory three consecutive attempts to be counted for the best of these attempts

Calculation:

The jump distance is measured from the starting line until the last part of the body touches the ground towards the beginning

III- **Speed endurance test (speed endurance)**

George cazorla test 12*20 m, for a period of 40 seconds.

Test procedures.

The scheme or the test is drawn so that six cones are placed:

The distance between the first and the second repression is 4.30 meters.

-The distance between the second and third oppression is 3.20 meters.

The distance between the third and fourth repression is 5 meters.

The distance between the fourth and fifth repression is 3.20 meters.

The distance between the fifth and sixth repression 4.30 meters

Performance specifications.

The player runs zigzag for a distance of 20 meters and repeats the same distance 12 times, resting 40 seconds between repetitions.

Method of calculation.

- The total number of time is calculated.

Extract the best time.

- The average time of fatigue (the highest time- the lowest time). (Cazorla, 2006)

IV- **Strength endurance test.**

The purpose of the test: measuring strength to endure the abdominal muscles.

Tools: rug and clock.

Performance description.

Sitting from the slavery with the knees bending to measure the endurance of strength leads so that the palm is flocked behind the neck

Test bicycle account.
Calculate the number of times as long as possible

V**-Agility test, Barrow, zig zag running .**
The purpose: a good choice to measure fitness.
Tools: Five lists, high or five balls, and chairs can be used instead
Four lists are fixed vertically on the ground in the four corners of the rectangle and the fifth in the rectangle
, Rectal, 80.4 m and its width 3 m
Performance specifications: From the starting place (next to one of the four lists specified for the rectangle), the laboratory runs the running of Al -Zathzj on the form of No. 8
Directives
The specified traffic line must be followed accurate
Again after getting full comfort
Registration: The time that the laboratory cuts is recorded.

VI**-30m speed test.**
The purpose is to measure the transitional speed of the players.
Performance description:
The test begins that each laboratory takes the status of standby behind the first line. And when the permission is given to start, the laboratory runs the speed of an increasing extent to the maximum range at the second start line. Miqati runs the watch with this sign. When the laboratory cuts the finish line, Al -Miqati stops the watch and calculates the time that the laboratory took between the signal that the observer gives and the moment he passes the finish line.
Calculation of grades: Time is recorded for the nearest 10/1 of the second, and the laboratory is calculated for the best time he records in the two attempts.

7-2 the proposed training program

The proposed training program was implemented, relying on the training methodology according to play in the SSG with the Terrain Delimiter.
Checinantly, codified to work according to controlled and studied standards
The researcher in the application of the training program has taken into account some of the following points.

Attention to the SSG exercises with goals that serve the physical side
- The occasion of the exercises chosen in the training unit with the capabilities of the research sample personnel.
Providing the variety and suspense element in the activities and exercises used.
- Use the stadium specified in all Rondo exercises.
- The graduation in increasing the training loads through directions and advice to touch a ball once orine.
-The inclusion and complementarity between the components of the proposed training program using mini games, with the aim of comprehensive and integrated development to develop the components of the physical and functional training status of the players.
- Good legalization of the components of a campaign to train (repetitions - groups - the rest period between groups according to the peculiarities of mini -games training in terms of the number of players, the space of play and tips and instructions for the coach) to avoid the phenomenon of excessive pregnancy and ineffective work.
- Giving a negative or positive rest period according to the goals specified for developing the air and aerobic aspects

7-3-Statistical procedure:

The nature of the study is the one that determines the means of the statistics used and used the researchers for that, the statistical package program

8- Results and discussion:

8-1 Discussion and analysis of the results.

The researchers will address the raw results by presenting them in tables, followed by analysis, discussion, and interpretation, in order to determine the extent to which the study's hypotheses are confirmed or rejected.

The following table: It shows the results in all the dimensional tests of the experimental sample and the control sample

Significance statistics	Tabular T	Calculated T	Control group		expérimental group		
			ع	x	x	s	
Significance	2,26	3,91	2,90	15,07	1,93	15,50	**T-mas**
Significance		5,55	0,61	1,66	0,55	1,80	**T-maximal strength**
Significance		6,80	0,11	5,84	0,18	5,37	**T-transition speed**
Significance		5,12	0,81	18,00	1,15	20,30	**T-strength endurance**
Significance		5,34	0,10	5,28	0,06	5,07	**T- speed endurance**
Significance		5,16	1,71	34	2,45	29	**T- agility**

I-The Maximal Aerobic Speed (MAS)

The experimental group of the research sample achieved in the post-test an arithmetic mean estimated at (15.50) and a standard deviation estimated at (1.93), while the control group achieved in the post-test an arithmetic mean estimated at (15.07) and a standard deviation estimated at (2.90). The calculated t-value reached (3.91) at the significance level of 0.05 and the degree of freedom 0.9, which is greater than the tabular t-value, which was estimated at (2.26). This indicates the presence of statistically significant differences between the post-

measurement between the experimental group and the control group, in favor of the post-measurement.

II- maximum strength test.

The experimental group of the research sample achieved in the post-test an arithmetic mean of (1.80) and a standard deviation of (0.55), while the control group achieved in the post-test an arithmetic mean of (1.66) and a standard deviation of (0.61). The calculated t-value reached (5.55) at the significance level of 0.05 and the degree of freedom of 0.9, which is greater than the tabular t-value, which was estimated at (2.2.6). This indicates the presence of statistically significant differences between the post-measurement between the experimental group and the control group.

III- transitional speed test.

The experimental group of the research sample achieved in the post -test average mathematical of (5.37) and a standard deviation of (0.18), while the group witnessed in the post -test average mathematical average of (5.84) and a standard deviation of (0.11) and the value of the calculated (6.80) at the level of significance is 0.05 and the degree of freedom 09 which is greater than the value of the table B - (2.2.6), and this indicates the existence of statistically significant differences between the post -measurement between the experimental group and the witness group and for the benefit of the post measurement.

IV-strength endurance test.

The experimental group of the research sample achieved in the post -test average mathematical of (20.30) and a standard deviation of (1.15), while the group witnessed in the post -test average mathematical average of (18) and a standard deviation of (0.81) and the value of the calculated (5.12) at the indication level 0.05 and the degree of freedom 09 is greater than the value of the tabular and estimated (2.2.6) This indicates the existence of statistically significant differences between the dimension between the experimental group and the witness group and for the benefit of the post measurement.

V-speed endurance Test

The experimental group of the research sample achieved in the post -test average mathematical of (5.07) and a standard deviation of (0.06), while the witness group achieved the post -test average mathematical of (5.28) and a standard deviation of

(0.10) and the calculated value (5.34) at the level of the significance 0.05 and the degree of freedom 09 is greater than the value of the tabular value that was estimated B - (2.2.6), and this indicates the existence of statistically significant differences between the post -measurement between the experimental group and the witness group and for the benefit of the post measurement.

VI-agility Test.

The experimental group of the research sample achieved in the post-test an arithmetic mean of (29) and a standard deviation of (2.45), while the control group achieved in the post-test an arithmetic mean of (34) and a standard deviation of (1.71). The calculated t value reached (5.16) at the significance level of 0.05 and the degree of freedom of 09, which is greater than the tabular t value, which was estimated at (2.26). This indicates the presence of statistically significant differences between the post-measurement between the experimental group and the control group, in favor of the post-measurement.

8- Research summary

Through what we mentioned, it turns out that the use of mini games organized by the **Déimiteur de Terrain** device positive

This topic is consistent with a number of previous studies, including a short study of 2013, which dealt with the effect of playing of players with different areas in the development of some physical and skillful mines when the players of the ancient times, where the researcher reached the proposed training program on the authority of the playing of playing with different spaces that had the positive effect in the development of Some of the physical and skillful abilities of the midfielders of football. Also, the study of Harakan stones (2012), which was represented in the study of the effectiveness of training in the use of the opponent's style on mini -platforms in the development of some physical and skill requirements for the freshness Positive in the development of physical attributes and basic skills under research and in a study of the researchers, Sweileh Aziz, Bin Rabeh Khair al -Din (Sweileh Aziz, 2021) on "the reality of the coach's knowledge of various mini -game applications strategies in improving the physical aspect of football players" and through research and investigation, the researchers conclude that mini games provide additional solutions to coaches in

improving various aerobic characteristics The anaerobic required by modern football.

9. conclusions:

The researchers concluded through the results of the study.

There are differences between Pre-Test and Post-Test (the proposed training program using the SSG game organized by the **Déimiteur de Terrain** device in developing physical abilities of the experimental group members).

There are differences between the dimensional measurements of the physical capabilities of the experimental and control group members.

-SSG, organized by the **Déimiteur de Terrain**, has a positive impact on developing all the physical capabilities of football players

9. Recommendations and proposals:

In light of the results obtained, the researchers recommend the following:

- Emphasizing the use of small-sided games (SSG) organized through the ***Délimiteur de Terrain*** device during the special physical preparation phase, as an effective and structured method to enhance training efficiency.
- Conducting similar studies on different youth age groups, as they represent the foundational base for future athletic development.
- Integrating technological and innovative devices into the training process to enhance stimulation, precision, and efficiency, while also minimizing errors and reducing the monotony of daily training routines

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