

Study the difference between the planified training load and the accomplished training load in football during the competition period

دراسة الفرق بين الحمولة التدريبية المخططة والحمولة التدريبية المنجزة في كرة القدم في فترة المنافسة

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Abstract The study aims at knowing the difference between the planified load training and accomplished load training during competition period ,and that it is why we used the compared description method on a sample contains 32 players that was used by the intentional method and to collect data's we used polar team 2 device, after having collected the data's and statically treated it we found that difference with stastical significance exists in football for the between of the accomplished load training .

Keywords: Planified load; Accomplished load; Football; competition period.

المخلص: هدفت الدراسة إلى معرفة الفرق بين الحمولة التدريبية المخططة والحمولة التدريبية المنجزة خلال فترة المنافسة، ولهذا السبب استخدمنا المهج الوصفي المقارن على عينة تحتوي على 32 لاعبًا تم استخدامها بالطريقة العمدية ولجمع البيانات. تم استخدام جهاز Polar team 2 ، بعد جمع البيانات ومعالجتها بشكل ثابت ، وجدنا أن هناك فرقاً ذو دلالة احصائية بين الحمولة التدريبية المخططة والحمولة التدريبية المنجزة في كرة القدم في فترة المنافسة

- الكلمات المفتاحية: الحمولة المخططة؛ الحمولة المنجزة؛ كرة القدم؛ فترة المنافسة

*** Introduction and problematic of the study:** Sport training is an purposeful process with a scientific planning to prepare the players with different levels and according to ability with a multilateral preparation , physically , skillfully , technically , tactically and psychologically , to reach the highest possible physical and skill performance. (Abu Al-Ala Ahmed Abdel-Fattah 57, 2012).

The main object of the coach is to improve performance by the ideal amount management of the training and the convenient healing period that allows the psychological and physiological adaptations to reach the maximum before competition.

this it is important to determine the training results (physiological tests and performance) and the training process (internal and external load) in order to increase the level of fitness of the athletes the load of training should be précised to incite sport private adaptations (impelliweri 2004, foster 1996 et al)E several studies have indicated the importance of diversification of training loads in the short and moderate run ie daily alternating periods of heavy and lights training to get the perfect performance (Estene - Zanao 2007).

training load can be fevered into two: external load or internal load (halson2014) external load is knows as the work (performance) that is done by the athlete and it can be measured despite its inside (internal) specifics whereas the internal loads is the relative and imposed physiological and psychological overwork (halson 2014) the internal load gives us more information about degrees of adaptations and healing from fatigue.

despite the importance of the two types to understand the training loaf supported by the athletes it should be a perfect mixture of the two to control the right training (halson 2014) infect there should be a good correlation between the fatigue not only the internal load (halson 2014) .

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The ability of controlling training is very important to quantify and evaluate the questioning of the athletes and load performance also to determine the relationship between training and performance (Mujica 2006) in the last years programs were developed to quantify training load in football. The internal and external load some were less others were more accepted for many reasons (Vazquez 2012).

Internal load is one of the components for load training in general and it is a significant indicator to know the physiological changes in the vital body organs that represent its response to the external physiological stimuli's these changes and response in the vital body organs are one of the standards to define the physiological sport level we can recognize the response of the functional organs through physiological indicators such as heart beat blood pressure and the amount of lactic acid in blood and other functional by using advanced devices.(Ahmed yocel Motib EL Hasnwi 2014/ p49).

In order to realize the physical performance of the training program the coach must balance between the latter and the load training of the footballer to discover to fatigue indicator and fulfil good recovery.

Hence, accurate and correct knowledge of the values of the training load for players is the most important indicator of the effectiveness of the training program to achieve physical performance according to the requirements of modern football, so the coach must be fully aware of the dynamics of the training load for his players so that he can plan and program the appropriate training program and modify it according to the requirements of modern football And given the development of technology in the sports field and the means of evaluating and controlling the training load in football in order to improve performance and achieve the best results, it is important that the planned training load fit with the accomplished et training load in order to avoid

excessive training and improve recovery through monitoring and ambushing the training load, especially the completed training load. These data motivated our attention to examine the level of difference between the planned training load and the accomplished training load in football during the competition period, and prompted the researcher to ask the following question:

-is there statically significant differences between planned load training and accomplished load training in football in competition period?

-the research chose the hypothesis like so:

-there are statically significant differences between planned load training and accomplished load in football in competition period

- **The aim of this study was to:**

1- Know the difference level between planned load training and accomplished load training in football in competition period.

The importance of this research is to:

-pay attention to the ways of quantification and controlling load training.

-Push the concerned researchers to make future hypothesis in controlling and quantifying training load field.

2-Deal with new technical and technological devices for recording training load like polar team.

2-Key words in the study:

2-1 Planned load: It is the amount of training load which the trainer makes in the planning the daily and weekly training program such as Weak/ moderate or big load according to the aim of the training season.

2-2 accomplished load: It is the real amount of training load that it is done by the trainer during the training season by quantifying the training load with one of the quantification method.

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2-3 Football: It is a sports game that requires certain ways to be played, has special rules, is played in a special space and according to the approved rules, and it is one of the sports with the most friction due to its proximity to competitors. Each other and the intensity required by competition, and is considered one of the most practiced sports (Yahya Mohammed et al. 2014 p. 328).

2-4 Competition period: It is a period that relies on competition calendar from 8 to 10 months (according to the country and the level of playing). It consists of weekly training seasons called **Micro-cycles** aimed at transforming general and private fitness into competitive fitness and acquiring ideal capabilities for performance and keep it for alone period of time. Create heavy competitive loads (often 2 matches which makes it important to program two renewal and recovery (regeneration) every week in the moderate training session, especially for young. It is also necessary to make educational moderate training sessions during the formation (Zouagui Khalifa and Bouhlata Sofian 2019/ p.70).

3. Pervious and similar studies:

- **Study of the Radwan Boubacar (2017) entitled:** "Evaluation of the load training during training session for football clubs" The study aims at evaluating load during training sessions for professional Algerian football clubs. The study procedures was for the first professional clubs association in order to determine the amount and type of load training that it is programmed weekly, its standard deviation also the average training intensity, training monotony value "training monotony" and over work training indicator value "constraint training" by using the way perceive efforts session "RPE session" characterized by honesty and validation confirmed by many researchers and this using the program of content

analysis on a simple consists of 20 football players belong to first professional clubs association and the result of the study is the possibility of using the above mentioned method as a right tool to determine the amount of load training in football and get training monitory and overworking indicator value that allowed Vs to evaluate the load, monitory and overworking in training and reveal the deference in the content and intensity of the training for these clubs. In the end, the researcher game suggestion for future studies and researchers about ways of quantifying training load and evaluating in sports training field especially in football according to the demands of modern football.

- **study of the Bonab Mohamed Al-Saleh bin Qara Yasin (2020) entitled:** The effect of training load during the period of physical preparation on the maximum consumption of oxygen and heart rate during rest for football players under the age of twenty. This research aims to study the effect of the training load during the preparation phase of physical activity on the variables of heart rate at rest and maximum oxygen consumption on the one hand, and to evaluate the training load for the phase of physical preparation for Algerian football. Under-20 team. The research sample included 17 players who officially represented the Skikda youth team in the 2016-2017 season, and they accepted to participate in the procedures of this research. The results showed that the training load applied to the research sample during the phase of physical preparation significantly affected the decrease in heart rate at rest, and the increase in the maximum oxygen consumption.

- **Study of the chebbah Khair al-Din and bin Laabed Abd al-Rahim (2018) entitled:** "Analysis and quantification of load training during physical preparation stage before season" The goal of this study is analyzing and quantifying training load for the Algerian professional football team during the

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physical preparation stage before the beginning of the season ,Methodology We analyzed end quantified the daily and weekly training loads for method RPE, Results Low training load during general preparation stage that lasted for bus weeks, it the gradually increased to the edge (top) during the special preparation stage .The physical preparation ends in the second week; also the special preparation stage, the effort self-sensing method allows for a better distribution of training loads during this phase.

The practical side:

The methodological methods used:

Exploratory study:

Before starting the main study, the researcher made some procedures, which aimed at:

- Meeting both the sport technical loss of USMA and NAHD football teams.
- getting closer to the USMA and NAHD football coaches
- programing a formative day to how to use the device Polar team 2 with a study simple

4-Research Methodology:

The method is the path that leads to the desired goal or the invisible thread that pulls the research from its beginning to its end in order to reach the results (Muhammad Azhar Al-Sammak and others 1980, p. 42).

In this study, the researcher was convinced that it is important follow comparative descriptive program as a scientific method suitable to the nature of the research problem descriptive method is known as the method which aims at

collecting dates in order to test obligation and answering questions concerning the present state of the research sample members.

5.1 Human field: Football players under 21 years old of both USMA and NAHD teams of the first professional football league.

5.2 place field: Omar Hamadi stadium in Bouloghin and Ben siam stadium in Hussyn dey.

5.3 Time field: January 5Th 2020/February 5th 2020.

6) Research community:

Society consists of all the elements and problem vocabulary or under study. In this research society contains 400 football players involving in the first professional association football clubs for the season 2019/2020.

6-1 sample search:

Sample of the research is considered as the basis of the research, it is a group of persons on which the researcher makes his study, it is taken from the original society and is always represented in an honest way (Roman Mohamed 1995), The sample in our research consists of the Union of the Capital, Nasr Hussein Dey clubs. The sample included 32 players, 16 players for each team.

7) Collecting information and research tools

- Arabic and foreign sources and references.
- Personal meeting
- Managing both USMA and NAHD clubs of the 1st professional of football league.
- polar team 2 device to quantify training loads.

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- The EDWARDS (CaEdwards) method consists of multiplying the time spent within the five intensity zones by a coefficient relating to each zone. Finally, by adding the products of the time spent in each intensity zone by its coefficient, the workload is obtained (Basile Matteo p4). The zones with the respective coefficients are:

Zone 1: 50, 60%

Zone 2: 60, 70%

Zone 3: 70, 80%

Zone 4: 80, 90%

Zone 5: 90, 100%

8-statistical methods :

The researcher relies on the following statistic tools for the statistic package program SPSS.

The Wilcoxon test coefficient was used, and this test is used to determine whether there is a difference or differences between two related samples. It is an alternative to the Sign-rank test. It is called the test of rank signs for T-linked samples.

9-Presentation, interpretation and discussion of the results:

Presentation and analysis of the results of the hypothesis: There are statistically significant differences between the planned training load and the accomplished training load in the football competition period.

9-1 Presentation and analysis of the results of the hypothesis: There are statistically significant differences between the planned training load and the accomplished training load during the football competition period.

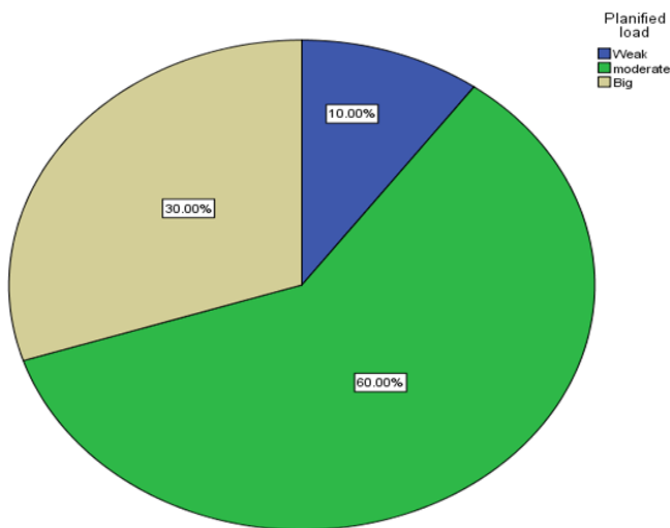
Table No. 01: There are statistically significant differences between the planned training load and the accomplished training load during the football competition period

Statistical variables	rank sign	Sample volume	average rank	total ranks	Test value	probability value
Planned load / Accomplished load	positive ranks	20	10.50	210.00	-3.920	0.000
	Negative ranks	0	00	00		
	equal ranks	0				
Significance level 0.05						
Statistical decision: There are statistically significant differences						

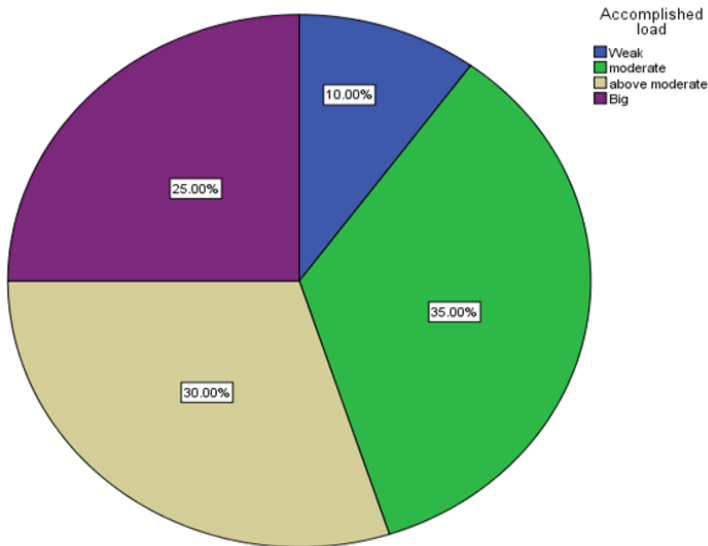
The results of the above table shows the test of the difference between planned training load and accomplished training load in competition period of the studied teams and its aim is to determine the degree of the similarity and difference between the two loads training the study period for many scientific reasons the researcher confirms the test value $z (-3.920)$ which is a significant statically value in the level of the 0,05 , so that the possible value (SIG) is lesser than the significance level thus refusing the zero hypotheses and accepting alternative hypothesis which confirms the existence of the differences between the two loads in the suggested rates field and the existence of these differences are a proof that planned training load doesn't match the accomplished training

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load because the trainers don't give much importance to the scientific and theoretical field to codify the load and the way of its calculation but they only give specific indications to determine the load that it is why the researcher confirms that load level has to be abide by criteria's and conditions which were not taken into consideration and that is why differences were found , the codifying of load training is an important factor to achieve the underhined aims that its results will be shown in a direct why in various physical and skillful private needs , that it is why all the tools and scientific coefficients must be used so that the planned load training matches the accomplished load training according to the players abilities.



A graph representing the planned load :



A graph representing the accomplished load

Conclusion:

Controlling the monitoring of the training load is an important point for the coach and the physical preparation t allows to get a lot of information's which concern daily and weekly load that it is managed by themselves in order to discover fatigue indicator and avoid injuries and also improve recovery process after training competition and this due to the good pacification of the daily training by specify the right does of the training sessions using controlling and quantification ways of load training.

Thanks to our study we shed some light on the difference between planifief loaf training and accomplished load training in football in competition period we followed two microcycle training sessions in which we compared training sessions and then we quantified the training sessions heart rate Edwards we came up with a conclusion that statically significant difference exist between the

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planned load training and accomplished load training for the benefit of the accomplished load training.

-these differences are proof that planned training load doesn't match the accomplished training load because the trainers don't to give much importance to the scientific and the theoretical field to codify. The load and the way of its calculating but they only give superficial indications to determine the load that its why the research confirms that load level has to abide By criteria's and conditions which were not taken theof Load training is an important factor to achieve the underlined aims and that its results will be shown in a direct way in various physical and skillful private needs that it is why all the tools and scientific coefficients must be used so that the planned load training matches the accomplished load training according to the players abilities.

here are some suggestions and recommendations

- accreditation a planned program according to the modern needs of football.
- using technology to quantify load training such as word and RPE methods.
- using technology to quantify load training such as polar team 2.

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