

## THE INFLUENCE OF REGULATION CHANGES IN THE HANDBALL GAME FOR GOAL MARKING

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**Keywords:** handball regulation, training, goals marking, handball gate

**Abstract:** The aim of this study is to analyze and highlight goals marking changes in handball game after some changes are made for the handball gates and also for the handball playground. The changes consist in decreasing the gate length with 50cm, increasing the 6m and 9m handball semi-circles surface with 1m, and also increasing with 1m the 7m line. Thus, under given conditions, the players have a slower rate in goals marking because they must be more accurate when they throw the ball at the gate. Comparing the obtained results from initial and final testing, we can see a considerable difference in terms of goals marking rate success for each player.

### Introduction

Handball game evolves constantly due to experts concerns and for their discoveries to refine the players training process. This evolution led to the training and materials quality improvements, and it requires coaches' special attention regarding the players' selection and preparation process<sup>1</sup>. Handball modern game involves some dynamics and speed changes. Its popularity among players is given by the movement performed in the playground, offensive speed actions, throws and passes complexity, etc<sup>2</sup>.

Handball game requires valuable players that have a good level of physical fitness development, suitable technical/tactical training and motor qualities necessary to achieve sport performance.

It is also assumed that handball evolution requires more versatile players that are able to successfully evolve on two or more play positions. Player quality consists in the number of tasks that he can

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<sup>1</sup> Baștiurea, E., (2007) – Handbal, concepte, principii și căi de perfecționare ale antrenamentului, Editura Academica, Galați

<sup>2</sup> Bojić, I., Petković, D., Kocić, M., (2010) - Influence of Different Training Programmes on Basic Coordination of Female Handball Players, Acta Kinesiologica, Nr.4, pp. 71-74

successfully perform, less counting the main position that is specialized. Achieving sporting success is mostly provided by team work. Also this success can be obtained by the individual contribution of each player in the playground<sup>3</sup>. However, for competitions participation and certain sporting performance achievements, players must be included in a specialized educational process, named as sports training.

Sport training represents in Balint Elena's opinion „, a process that engages the coach – players' couple, which is conducted systematically and continuously graded in order to reach the necessary level for solving the established objectives". This process is ordered and methodical planned and includes the gained experience and applied or fundamental researches' discoveries of handball<sup>4</sup>.

Through training is developed and improved the athletes' physical aspect, but the technical, tactical, psychological, and theoretical aspect, also. Physical training is the most important part of sport training; this requires increasing the handball player physiological potential and developing motor qualities like speed, skill, strength, endurance, mobility, flexibility, etc.

Their development involves the application of some specific working methods. Prescorniță A<sup>5</sup>. suggests several ways of working such as: increasing movements' complexity and speed execution, reducing, limiting the execution spaces; performance with the clumsy side and in some abnormal condition.

In this paper the method of "reducing, limiting the execution spaces" is applied in the form of regulation changes regarding the playground. Results are obtained by using two tests.

### **Materials and methods**

In this study is started from the following assumptions:

1. In what manner the handball players' activity is influenced by certain changes of the handball playground or regulation in goals marking?
2. How does "reduce, limitation of execution spaces" method influences goals marking?

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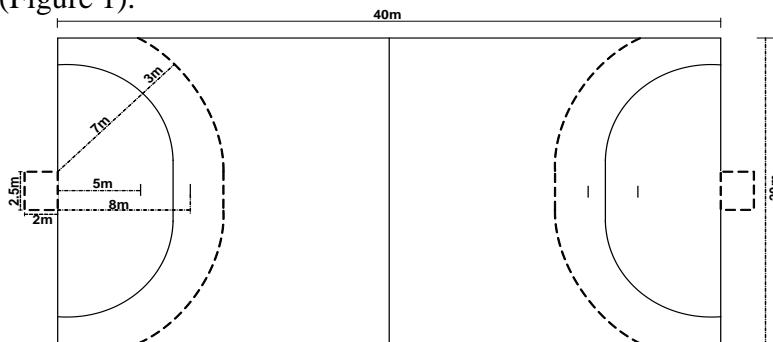
<sup>3</sup> Starosta, W., (1996), - Selection of children for sports, Current Research in Sports Sciences, USA

<sup>4</sup> Balint, E., (2006) – Bazele teoretico-metodice ale antrenamentului în jocul de handbal, Editura Universității Transilvania din Brașov

<sup>5</sup> Preșcorniță A., (2004), Capacitatea motrică și capacitățile coordinative, Editura Universității Transilvania Brașov, pp.132-137

This experiment was conducted in Sports Program High School of Suceava, Romania and included a group of 14 players, team handball athletes of Sports Program High School, junior male 1<sup>st</sup>. Initial and final testing was conducted using two tests. Test 1 consisted on handball throwing from the 8m line (Figure 2). In test 2 the player has to perform a speed conditions exercise (Figure 3).

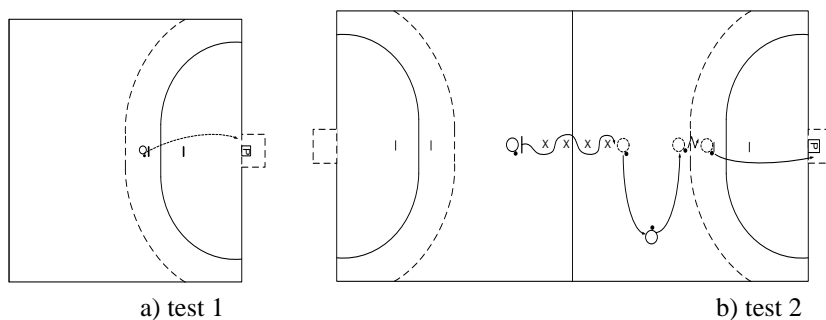
Between the two tests a specific handball training program was followed where were introduced the next changes: gate length decreased by 1/2 meter and 6m 9m semi-circle, 7m line and 4m line were increased with 1m (Figure 1).



**Figure 1.** Handball playground with the new dimensions

Training period in those conditions was 2 months, August and September, during which players participated in four trainings sessions each week.

Test 1 and 2, respectively (Figure 2a, 2b) is repeated 5 times, being recorded the number of goals marked. Test 2 is performed on speed conditions.



**Figure 2.** Representation of the tests performed on the handball playground

These tests are designed to determine in what manner the proposed

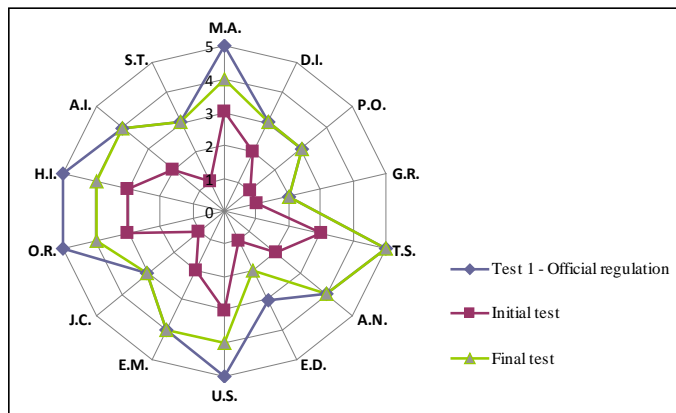
changes can affect goals marking and the difference between them and the results from the implementation of the two samples in normal regulation condition. After performing those two tests under normal game conditions and recording the results, they were performed under changes condition of the proposed regulation.

### Results and discussions

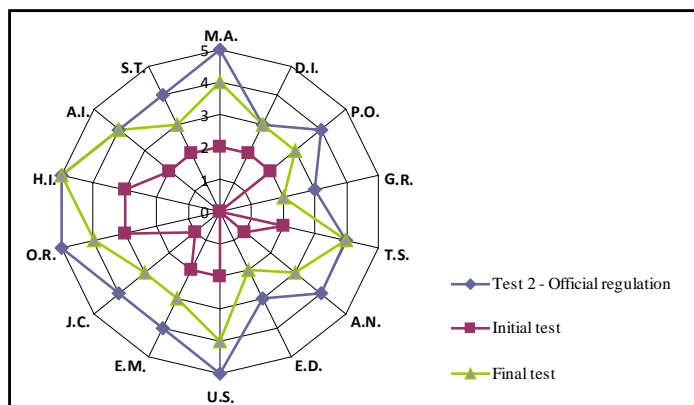
Initial and final tests revealed the data presented in Table 1.

**Table 1.** Data obtained from the test 1 and test 2, respectively

Nr.	Name	Age	Task 1 - normal condition	Task 1		Task 2 - normal condition	Task 2	
				Initial test	Final test		Initial test	Final test
1	M.A.	18	5	3	4	5	2	4
2	D.I.	17	3	2	3	3	2	3
3	P.O.	17	3	1	3	4	2	3
4	G.R.	17	2	1	2	3	0	2
5	T.S.	19	5	3	5	4	2	4
6	A.N.	18	4	2	4	4	1	3
7	E.D.	17	3	1	2	3	0	2
8	U.S.	18	5	3	4	5	2	4
9	E.M.	18	4	2	4	4	2	3
10	J.C.	17	3	1	3	4	1	3
11	O.R.	19	5	3	4	5	3	4
12	H.I.	19	5	3	4	5	3	5
13	A.I.	18	4	2	4	4	2	4
14	S.T.	17	3	1	3	4	2	3
Average		17,79	3,86	2,00	3,50	4,07	1,71	3,36



**Figure 3.** Results obtained at the test 1



**Figure 4.** Results obtained at the test 2

The total number of throws is 5. Regarding the obtained results for the first test, the throw average under normal conditions was 3.86, meaning 77.2%. Regarding the data obtained from initial testing was performed an average of 2 successful throws, or 40% from a total of 5 throws. At final testing progress has been 30%, the throws average being 3.50, with a percentage of 70%.

Tested under normal conditions the success average of second test was 4.07, which means a rate of 81.2%, from the total of 5. For initial testing, under special conditions, the group achieved a throwing average success of 1.71, which means a rate of 34.2%. In the final testing the progress was 33%, with the group average of 3.36, meaning 67.2%.

Analysis shows that the achieved progress for test 2 is higher with 3%, compared with the results obtained from test 1, even if on the initial testing, second test had an average of 6.8% less successful than the average for the first test.

### Conclusions

Certain size changes regarding handball playground and gates determine decreasing the player goals number, making handball game more difficult to perform.

By changing a few points regarding handball regulation, throwing success is reduced. These changes caused a decreased in the number of the goals marked. Therefore in first test, the proportion between normal and proposed condition testing decreased with 37.2% and for second test, the percentage dropped to 37%.

Following the training process in special conditions (handball playground resized), the difference between normal circumstances testing and final testing is 7.2% for first test and with 14% for second test.

This study will continue with the analysis of several handball friendly games, keeping the proposed dimensions, which will analyze the difficulty of marking goals under adversity and bilateral conditions. Also, will be analyze what kind of implication this method has over the players training process and over the number of goals marked in an official handball game.

Therefore, this performance spaces reduction is regarded as a training method for development of motor qualities.

### References

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**Titlu:** Influenţa modificărilor regulamentului din jocul de handbal asupra înscrierii de goluri

**Cuvinte cheie:** handbal, regulament, antrenament, spaţii de execuţie

**Abstract:** Scopul acestei lucrări este de a evidenţia şi analiza modificările care apar în ceea ce priveşte înscrierea de goluri în jocul de handbal după efectuarea anumitor schimbări în dimensiunile porţilor şi a terenului de handbal. Modificările propuse au vizat micşorarea lungimii porţilor de handbal cu 50cm şi mărirea suprafeţei semicercurilor de 6 şi 9m cu 1m, iar linia de 7m s-a mărit cu 1m. Astfel, în condiţiile date, numărul de goluri s-a redus, crescând dificultatea introducerii mingii în poartă de către jucători. Comparând rezultatele obţinute de la testarea

inițială și cea finală, se poate observa o diferență considerabilă în ceea ce privește rata succesului fiecărui jucător pentru înscrierea de goluri.

**Titre:** Influence des changements dans les règles de jeu de handball sur l'enregistrement des buts

**Mots-clés:** handball, la réglementation, les espaces de performance, entraînement

**Résumé:** Le but de ce papier est de mettre en évidence et d'analyser les changements dans les termes d'objectifs inscription dans le jeu de handball après certains changements dans la taille des portes et handball. Les modifications proposées visent à diminuer la longueur de grille de 50 cm et d'augmenter la surface de handball demi-cercles 6 et 9m et 7m 1m ligne a augmenté de 1 m. Ainsi, dans les circonstances, le nombre de buts diminué, ce qui augmente la difficulté de mettre la balle dans le filet par les joueurs. En comparant les résultats obtenus à partir de tests initial et final, on peut voir une différence considérable en termes de taux de réussite pour l'enregistrement des buts de chaque joueur.