

THE TEACHING METHODOLOGY OF COACHING/TRAINING IN SPORTS GAMES - BEACH VOLLEYBALL - AT THE ELEMENTARY EXTENDED DAY PROGRAMME SCHOOL IN GREECE

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Abstract: *Beach volleyball, a relatively new sport, is a complex game, characterised by an accelerated dynamics and a rapid worldwide implementation, due on one hand to its diversity of practices and adaptability, and on the other hand to its multiple educational and entertaining aspects (Parlebas, 2001, Tank, 1996, Hoemberg, Papageorgiou, 1994). Coaching/training in beach volleyball, under all its aspects, is constantly evolving and changing. The level of beach volleyball, in the performance segment, is determined and conditioned by the efficiency of specific actions during competition, which is achieved through the increasing of quality of the technical, tactical, physical, psychological and theoretical training of each category of sportsmen (Alejo, 1995, Andersen, 1997, Bompa, 1999, Farantos, 1996, Hatziharistos, 1990).*

Keywords: *beach volleyball, game, research*

1. Introduction

In this paper we make reference only to *positive trends of development of beach volleyball* such as:

- learning and applying in different conditions of the play, of as many possible technical and tactical actions, depending on individual features and the level of training;
- increasing technical stability during the game and especially in situations of great responsibility, when the actions of each player can designate the winning team;
- emergence of new variants of performing basic actions, due to higher levels of the players' biometric level (size, dimensions, conditional and coordinating qualities);
- increasing of the speed of execution, its variation and modification of dynamic structure depending on the game situations, in order to create the advantage and the effect of surprise to the defence of the adverse team.

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Educating the versatile side in technical and tactical executions through specific means and methods is something that we consider to be part of the evolution tendencies of the game (Kleisouras 2004, www.beachvolleyball/coach.com).

The current game requires from every sportsman a technical and tactical preparation as diverse as possible, done in different environmental conditions, in order to achieve the established goals – gaining points and winning (www.fivb.com).

In accordance with the previous details we believe that the present theme is of interest in current research through the contribution we want to make to increase the efficiency of the game actions typical to beach volleyball. (www.paso.org/publications/coachfall2001).

2. Research Hypothesis

In conducting the research, we have focused from the beginning on the achievement of a hierarchy among the actions for each position within the team, depending on the importance of their use and on their efficiency during the game. By this research we have followed to establish training *goals* among segments of students, in order to increase the efficiency of the game, the adapting of training methods, methodological procedures, systems of action, but also the selection and design of some tasks and control rules.

Accomplishing a specific versatile feature in the preparing of all technical and tactical attack and defence actions, in specific circumstances of game, may develop the specific skill and implicitly the efficiency of the players' performance on a certain position on the field, both in the phase of attack and defence.

In expressing the hypothesis of this research we set the following *assumptions*:

- players specialized in net game are more effective in which blockage is concerned;
- players specialized on defence game are more effective in terms of the takeover from service and takeover from attack than those specialised on net game;

3. Organizing and Conducting the Research

The research was conducted over a period of two competitive seasons, 2006/2007 and 2007/2008.

1. *Initial assessment phase*: September 2006;
2. *Final assessment phase*: June 2008.

The research was conducted within the Elementary and Secondary School in the town St. Nicholas, Chalkidiki, which is located on the seashore. Beside the school we built two beach volleyball fields.

The participants to the research were the 4th, 5th and 6th grades. The investigated segment consisted on the student volleyball players, participants to the beach volleyball competitions and covered a total of 20 sportsmen, who practiced beach volleyball.

4. Results. Processing and Interpreting Data

After analysing the recording sheets and calculating the average of efficiency of game actions and structure for each player, we centralized the following statistical processing for initial and final competitive results (Table 1) and for the final (Table 2).

	S int.	Ps int.	R int.	A int.	B int	Pa int.	Sj int
Mean	0,58805	0,80355	0,8512	0,70945	0,40305	0,54995	0,65595
Standard Error	0,010761	0,011345	0,008721	0,010136	0,019831	0,014966	0,005635
Median	0,587	0,812	0,848	0,708	0,4055	0,5645	0,6525
Mode	0,598	0,813	0,899	0,712	0,5	0,632	0,645
Standard Deviation	0,048123	0,050736	0,039003	0,045327	0,088689	0,066932	0,025201
Sample Variance	0,002316	0,002574	0,001521	0,002055	0,007866	0,00448	0,000635
Kurtosis	9,458555	-1,09584	-1,05674	-0,66203	1,661376	-0,9935	-0,47982
Skewness	2,557741	-0,30059	-0,16257	-0,26384	-0,6366	-0,22149	0,172344
Range	0,236	0,162	0,122	0,155	0,404	0,232	0,089
Minimum	0,527	0,713	0,783	0,621	0,167	0,416	0,615
Maximum	0,763	0,875	0,905	0,776	0,571	0,648	0,704
Sum	11,761	16,071	17,024	14,189	8,061	10,999	13,119
Count	20	20	20	20	20	20	20

Statistical data for game actions, final results

Table 2

	S fin.	Ps fin.	R fin.	A fin.	B fin.	Pa fin.	Sj fin.
Mean	0,5988	0,8145	0,86135	0,731	0,42405	0,56475	0,6658
Standard Error	0,010175	0,010757	0,008004	0,009435	0,02058	0,014481	0,004765
Median	0,596	0,8215	0,8605	0,726	0,425	0,58	0,668
Mode	0,575	0,87	0,91	0,781	0,425	0,593	0,659
Standard Deviation	0,045503	0,048108	0,035794	0,042195	0,092036	0,064763	0,021311
Sample Variance	0,00207	0,002314	0,001281	0,00178	0,008471	0,004194	0,000454
Kurtosis	9,959808	-0,97801	-0,97404	-0,24283	0,386864	-0,80994	0,172903
Skewness	2,672657	-0,33856	-0,23773	-0,48559	-0,12348	-0,4603	-0,10131
Range	0,222	0,155	0,112	0,151	0,369	0,221	0,084
Minimum	0,544	0,725	0,798	0,637	0,213	0,431	0,626
Maximum	0,766	0,88	0,91	0,788	0,582	0,652	0,71
Sum	11,976	16,29	17,227	14,62	8,481	11,295	13,316
Count	20	20	20	20	20	20	20

These data were calculated by linear function, validating the applied methodology and the possibility to interpret data specific to beach volleyball, through the results of the efficiency of game actions.

If we discuss the value of the indices applied to pairs of players (1 and 2, 3 and 4 and so on), they confirm the value ranking of players in the given competition.

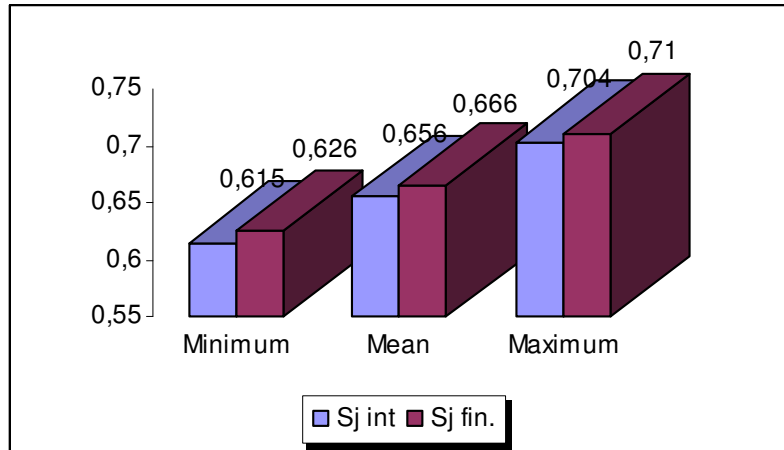


Chart 1: *Indices of efficiency of the game structures*

One can note that universal players generally fall into the last or intermediary (mean) position if compared to specialised players, which lead us to conclude that this option is not significant.

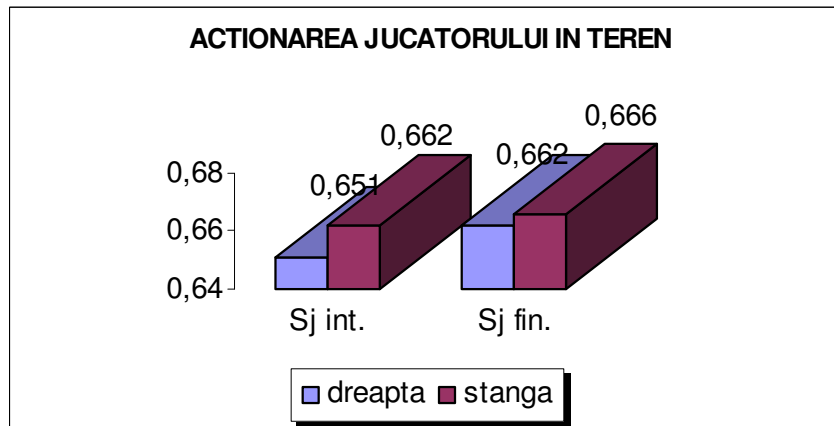


Chart 2: *the players' actions in the field on game structure*

As far as game structure is concerned (Chart 2), we see high efficiency indices of 0.651 and 0.662 at initial testing and 0.662 to 0.666 at the final. There is a peculiarity here, an obvious increase in quality on the player who acts in the right side of the field, from 0.651 to 0.662, if compared with the one in the left, from 0.662 to 0.666.

This confirms the quality of training, especially that on the right side of the field the left handed players are favoured, having the better performing hand towards the inner field, where the actions are more numerous. This also explains the reduced increasing of the efficiency on the left side of the field.

5. Conclusions

Statistical processing proved relevant for both competition seasons, validating the applied methodology and the possibility to make interpretation of the data specific to beach volleyball, through the results of the efficiency of the game.

- At the level of *game structure*, we see that the sportsmen have reached high levels of general efficiency. Average indices have high values of 0.658 and 0.666, confirming the methodology applied by us. If we take into consideration the value of the indices applied to pairs of players (1 and 2, 3 and 4 and so on), they confirm the value ranking of players in the given competition.
- At *service* the index values do not vary greatly, the vast majority of players being placed 0,5 and 0,6, which fit the very good values. One can notice the fact that high level indices of efficiency at a high level are to be found also in which students of the second half of the ranking are concerned (11 – 0,613; 13 - 0,598; 17 – 0,604).
- At the *takeover from service* the average values of 0,804 and 0,815 at initial and respectively final testing, are very good and they fit within a quality training for most students, a fact that we have particularly followed in our research. All values are above 0.7 so we can state that this technical element was approached by means of a proper methodology.
- At *lifting*, though it is a technical element difficult to perform in this discipline, we noted that most of the players were able to make constant executions, so the recorded average for the two tests are 0.851 and 0.861, which confirms that the sportsmen have made significant progress in

their multipurpose training, validating the methods and means that we used.

- At the *attack hit*, where both partners have to master very well the element, as it is the main action that scores, can be observed that there is great uniformity in the average of two tests (0.709 and 0.731). This action records the highest increasing, from first to second testing, with a value of 0.022.
- At *blockage* we find the lowest indices of efficiency due to reduced opportunities for students to score or intercept the ball, but it is a problem that we see even in performance sportsmen. The average values of 0.403 and 0.424 in the two tests are superior and validate the training methodology, especially because it is the most difficult game action.
- At the *takeover from attack* we observe that the efficiency of the actions do not vary dramatically from one sportsman to another. The average of the two tests are 0.55 and 0.565, with a difference of 0.01, which provides a good defence in the field, considering the difficulty to cover an area of 64 m² by the defence player.

Following the results obtained by our research subjects on each game action through the form of players' specialization on the field, we can distinguish the following aspects:

- the results regarding *service* show that the best players are those specialized in blocking, with high efficiency indices - over 0.6 in both tests (0.613 and 0.621); on the second position we find the defence players, close to 0.6 (0.591 and 0.602) and finally, with poor results, the universal players with 0.541 at initial testing and 0.552 at final testing; these results lead us to conclude that at this attack action the specialization of positions on blocking and defence is more appropriate.

- at the *takeover from service* we shall discuss about players depending on the areas in which they act on the field, those acting on the left side having a small advantage of 0.03, i.e. 0.805 compared to the 0.802 of those who act on the left side of the field, with a value of 0.813 compared to 0.811;
 - at the *lifting* the best players are those on the right side of the field, with efficiency indices of 0.861 and 0.869 in the two tests, as compared to the ones on the left, with a rate of 0.84 and 0.849;
 - at the *execution of attack*, as well as in the case of service, we record a close value, so we can state that also in the case of this technique the specialization of position does not influence the efficiency of in execution;
 - at the *blockage* the players specialized in this action have a higher percentage, 0.451 and 0.462 over those specialised on defence (with 0.445 and 0.442), which stand on the second position, and 0.42 and 0.431 for the universal players; we can conclude that here as well, the universal players are less efficient in direct actions to achieve the score - service attack and blockage;
 - the efficiency of the players in terms of takeover from the attack show that the defensive players have achieved the best results (0.581 and 0.59), followed by universal players (0.54 and 0.551) and on the last position, at a big distance, the blocking players (0.521 and 0.522); this situation is normal, as this last category only exceptionally participates in this action of the game;
- As a result of applying the patterns and systems of action suggested in our work to extended day programme schools in Greece, we can state the following:
- A positive accomplishment of the suggested experiment was done by

reaching our goals, achieving the expected finalities, and validating the hypothesis, which was that the *quality of a specific multipurpose, versatile training has determined the evolution of a specific skill and also the efficiency of the performance of the players on a certain position on the field, both in the phase of defence and attack.*

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