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Original Article

Assessment of the competition level of junior female volleyball players

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Abstract:
The preparation of female players is a planned, systematic and long-term process in which the objective is to obtain performance. During training, ongoing transformations occur both in terms of performance and in its structural components. These components presume progressive development and gradual stages that include complex functional, structural and psychological modifications, which are induced by the combination and variety that are required for competitions. A coach's objective is to offer the sportsman with a possibility to permanently and efficiently use their functional potential during their competitive actions.
Keywords: evaluation, volleyball, competition.

Introduction:

In the volleyball game, there are a wide range of required game actions that vary from the simplest to the most complex actions. All require continuous and perseverant training. The coach has the role of preparing a gradual progress schedule for learning and perfecting both defence and attack phases. Due to this continuous process of selection, instruction and preparation, currently, we can observe during a game the continuous increase in the level of mastery of both individual players and the team as a whole. Consequently, certain changes regarding the outlook of competitive volleyball are required.

Sports training for high performance sports includes overcoming the standard stages of training. Accordingly, there are two methods of achievement: informational manipulation at a biological and control stage and efficient use of intrinsic and extrinsic information.

To increase human performance, it is important to focus on less exploited resources to improve efficiency in many respects, including the motoric gestures, the preparation process, the use of time and energy and the organisational system that involve the overall activities in performance sports.

Hence, there is a tendency toward modernisation. In volleyball, it is oriented towards the defence and attack by forming instructions for tasks and action areas of each position in the game that are organically correlated to interact with other positions.

Thus, in the field of performance sports, the evaluation modalities of female players play a major role both during preparation and competition.

When the values are equilibrated, the results involve details that are often ignored by coaches. An objective viewpoint is provided by 'key moments' in the game. This is the reason why evaluation is mandatory to achieve stellar sports performance. Moreover, the role of preparation and training is to improve results to reach a maximum sports condition that is necessary when participating in contests.

The purpose of this study was to compare the coaching solutions with the research team solutions by evaluating every female player according to her specific position and analysing the competitive level of the LPS Piteşti volleyball team.

The research hypothesis:

To identify solutions that will provide appropriate performance results, we have objectively evaluated the viewpoints of both the research team and the coaches.

Methods:

- Analysis of the specific literature in the field of evaluating sports performance;
- Pedagogical observation during five official games in the Cadets National Championship for Female Volleyball;
- Questionnaires completed by the two team coaches;
- SWOT analysis of the results.

Results:

This research was carried out from 01.09.2017 to 30.11.2017 at the Cadets National Championship for Female Volleyball, and the questionnaires completed by the coaches were analysed. The same questionnaires

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were also filled out by the research team during the competition. To determine objective conclusions, a SWOT analysis was performed.

Evaluations of the preparation level of every female player was based on grids that measure the true value of the universal player, the team leader, the secondary player, the main player and the libero player.

To objectively determine the efficiency of the female players during the monitored contests, we used the following formula: I

$$= \frac{(a^2 - b)}{[(a + c)^2 + b]}$$

where

a = the obtained points (the balls which were not recovered by the opponent hit the ground);

b = balls recovered and played forward by the opponent;

c = errors.

To improve the obtained values of efficiency via the mathematical formula, we introduced a coefficient, N, which is expressed as follows:

$$N = \frac{(a + b + c)}{\Delta t}$$

This coefficient represented the number of contacts that every player had with the ball over a determined period of time,

Δt Thus, the initial formula was transformed as follows (Iorga, Simăn, I., Ioniță, S., Niculescu, M., Niculescu, I., 2004):

This formula was applied to all the monitored female players and is an objectively measure of their activity during the games according to the time spent on the court and to initiated actions.

Table 1. Grid for evaluating the competitive level of defence

No.	Activities	1 unsatisfactory	2 satisfactory	3 medium	4 good	5 Very good
1.	They are very good at blocking	1p	2p	3p	4p	5p
2.	They take over for a serve	1p	2p	3p	4p	5p
3.	Very good defence player on the second line	1p	2p	3p	4p	5p
4.	Proper defence of the big diagonal or of passes	1p	2p	3p	4p	5p
5.	Total commitment in defence	1p	2p	3p	4p	5p
6.	They ensure the doubling of their own attack	1p	2p	3p	4p	5p

Table 2. Grid for evaluating the competitive level of attack

No.	Activities	1 unsatisfactory	2 satisfactory	3 medium	4 good	5 Very good
1.	Attack from an upward pass "back-to-front"	1p	2p	3p	4p	5p
2.	Attack from on foot, with change of direction	1p	2p	3p	4p	5p
3.	Attack from the second line	1p	2p	3p	4p	5p
4.	They have a difficult serve – from a jump	1p	2p	3p	4p	5p
5.	They have a strong attack, with a high degree of hitting area 4	1p	2p	3p	4p	5p

The result of each action was evaluated by the coaches and our research team. The evaluation considered the aspects of defence in the game in correlation with the attack based on the effect on the score or on the subsequent control that the two teams had over the ball.

Actions of the a general player*:*

After watching the games, the research team noticed that the universal player (C. M.) of the analysed team made the following blocking actions: blocking in area 2 in correspondence with the main player, taking over from a second line attack, taking over from a serve, taking over from a pass, attack from an upward pass "back-to-front", attack from one foot, and a difficult serve. The survey used by the research team resulted in 38 points out of a maximum of 55, and the coaches gave 40 points, which was 69% of the total available points.

Actions of the main player:

The main players' moves during the five monitored games were: blocking in all areas (4, 3, and 2), attack from an upward pass "back-to-front", attack from the second line, and serve from a jump. The first main player (I. M.) was given 41 points by the research team, whereas the coaches gave her 40 points. The second main player observed (S. A.) was given 39 points by the research team and 40 points by the team's coaches. For the two main players, they received 75% of the total available points.

Actions of the secondary player:

The secondary players made the following specific actions: blocking in area 4, individually or with the main player, taking over from a serve, protecting the attacked balls from the long and short diagonal, doubling their own attack, serve from a jump, and strong attack in area 4. The first secondary player that was tested (C. B.) received 37 points from the research team and 39 points from the coaches. The second secondary player (I. D.) received 42 points from the research team and 41 points from the coaches. The secondary players received approximately 70% of the total available points.

Actions of the "libero" player:

For the "libero" player, we only used the survey to evaluate the competitive level for defence. The main actions of the "libero" player were: a very good player on the second line of defence, defence of the ball attack on the diagonal and of passes, and total commitment in defence. The player obtained 12 points, representing 60% of the maximum available points.

Actions of the game leader:

For the game leader, we used a separate observation survey due to the specificity of the position that the leader occupies in the field. She obtained 24 points, which represents 60% of the maximum available points that can be obtained.

Table 3. Grid for evaluating the competitive level of the game leader

No.	Activities	1 unsatisfactory	2 satisfactory	3 medium	4 good	5 Very good
1.	Constancy – normal for passes - special	1p	2p	3p	4p	5p
2.	Passing from a jump with an attack accelerating on the extremes	1p	2p	3p	4p	5p
3.	Playing 30%(min) with the middle player (ascension)	1p	2p	3p	4p	5p
4.	Giving a pass in the opposite direction of his movements	1p	2p	3p	4p	5p
5.	Playing the same combination from a lacking take-over	1p	2p	3p	4p	5p
6.	Passing while taking into consideration the opponents block	1p	2p	3p	4p	5p
7.	To "remove" the forward with a person to block or without the block	1p	2p	3p	4p	5p
8.	To represent a permanent danger to the opponent team when he/she is at the net (attack, pass)	1p	2p	3p	4p	5p

Discussion and conclusion:

After analysing the results from the five monitored games via SWOT analysis of the surveys filled out by both the coaches and the research team, the following conclusions were made:

Strengths

1. Training exercises fulfilled all of the requirements to achieve superior performances.
2. Material aspects were in concordance with performance objectives.
3. There was a positive climate surrounding the team.
4. The team was cohesive.

Weaknesses

1. Selection was not performed entirely according to superior performance standards.

2. The game leader was below the standard parameters required for superior performance.
3. Sometimes, the defence was weak.

Opportunities

1. There is a need to add better players to the team.
2 There is a need to choose a better game leader
3 There is a need to train a "libero" player to provide a better defence during games.

Threats

1. Not all players meet the height requirements for superior performance.
2. Accidents.
3. The upward tendency of body mass.

If we regard the efficiency of the game based on the specific position that each player has on the team, we can highlight the following main points:

- *The efficiency of the lifter* in the five monitored games was low, as determined by the maximum number of points that could be granted in the survey. This is a big problem considering that lifters coordinate attacks and are most important for game management.
- *The efficiency of the universal player* was the highest for taking over from attack and blocking; however, for the attack and blocking, there were lower points given than those available in the survey. Because players in this position finalize actions and have the most attack possibilities, our results confirm that the team requires improvement in this aspect.
- The most important action of *the main players* is blocking, and they achieved the highest values in the survey for blocking. The other actions were lower but not significantly lower. Thus, we conclude that the centre position of the analysed team is well covered.
- *Secondary players* participate in almost all of the game actions, mostly in taking over from attack and serving. Even though these actions achieved lower values in the survey, secondary players play an essential role in the quality of the game, which confirms our opinion that this position is well covered.
- *The "libero"* player is a defence player that only acts on the second line in taking over from a serve and an attack. Because gaining a point considerably depends on the taking over from a serve and an attack, we conclude that her actions are very important for the defence. The values obtained ere below those available in the survey. Thus, we consider this to be a weak position for the team.
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Regarding the evaluation made by the coaches, we observed some exaggerations of the technical and tactical level compared with the conclusions made by the research team. Regarding training for specific positions on the team, we noticed a mediocre level for most of the team's players, which is not beneficial for future superior performances. From the comparative analysis, we highlight common ideas regarding the competitive levels and a certain medium level. Based on the data, we recommend that there should be a selected and systemized basic routine for individualized training for the different positions on the team during training.

By evaluating and processing the data, we can contribute to the improvement of training and competition and contribute to creating training and play methods, which will determine the level of the sport performances that can be obtained in competitions. Our recommendation is that the technical and tactical components of training be organized so that the functional structure of the game involves the basic skills either in part or in their entirety. According to our evaluation and interpretation of their efficiencies, the level of awareness that players have of the value of game actions increases their performance capacities. Improvements in training must be achieved via the development and use of operational modules for the most important aspects of the established training regime to provide maximum efficiency during games, which will result in victory.

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