ANALYSIS ON SOME ASPECTS OF THE SERVICE IN VOLLEYBALL

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Abstract

This study aims to provide a tactical analysis of the service in volleyball through the match analysis and statistical software of different competitions of the Italian top volleyball player on service. The analysis of the service is developed in relation to the distance of execution from the baseline, and is result effective verify as many top teams have different distributions, distinguishing itself for the average flight time of the ball compared to the distances of execution. Finally, it is made a statistical study concerning a fundamental of individual technique, the service in jump which shows a percentage of failure higher than other types of service, while its effectiveness is somewhat questionable, when referring to the high-level teams.

Key words: match analysis, service, reception, distance of execution, time of flight.

Introduction

The video analysis and Match Analysis are generally used by all Volleyball teams as an important component for the performance assessment in the match. The video analysis enables revision of the whole course of the match and a focus on the strengths and weaknesses of the team, both in tactics and technique. Instead, Match Analysis returns numerical data on the athletes performance and the entire team (Parisi, Raiola, 2014ab).

The volleyball is a sport considered of attack and defensive games, and the service is the first attack with effect immediate on the successive defensive and offensive actions of the opposing team. Certainly the service is the first fundamental for achieve points, both from the point of view chronological point of view (you can not start playing without service) both from the point of view tactical (a joke effective is able to affect the play of opponents). In this way, it is cannot to consider that the quantitative aspects of performance has the specific role in relationship to qualitative one (Gaetano, 2012abc, Gaetano, Rago, 2014). Thus, Motor control and learning (Raiola, 2015abc, Raiola 2014ab) has to be considered the priority for training volleyball. Analyze the "service" provides awareness of the particularity of this technical gesture. For the characteristics that define it, this fundamental can be considered the most atypical and should be seen as important fundamental not of "situation" in a sport of "Open skills" such as volleyball. We have no other phase of the game in which the athlete has a control so complete of the execution of the coup. The service is the only moment in volleyball where a player can hold the ball and decide when to begin the action.

The volleyball was one of the first sports to use computers, of the match analysis and of software for the collection of statistics to analyze both the patterns of play of opponents that the various fundamental of game, namely the performance of individual players and the team. The first to introduce this system in Italy was Julio Velasco at the end of the 80's that allowed Modena to win four consecutive championships and then to the National Italian (always coached by Velasco) to win the first of the three consecutive world.

Hughes states that, in many team sports, it is difficult for an observer to see and assimilate all the action taking place on the competition. It was noted that, because of coaches who are able to see only those phases of the game related to a specific stage, the most peripheral part of the game is lost. So often, coaches are limited to base their feedback after the race on partial information of the performance of the team or of individual athletes (Hughes, Franks, 2008, 2004, Hughes, Bartlett, 2002). The aim is to analyze the service with a carefulness on tactical management of the competition, in relation to the percentage of the services failed, to the distance running, the side of the reception, the flight time in relation to the distance of execution.

Methods

For the video analysis of the match and the statistical study have been chosen ten games (No. 10) related to league Italian volleyball 2013-14. At each service it has been assigned a code in relation to the distance of execution of the itself it from the baseline (Fig. 1). The service in jump (S4), unlike of the first three (S1, S2, S3) forecast a movement of running start and jump of the batsman player, which starts from a distance from the baseline, and for then detach to feet together and jump near the bottom line, hitting the ball in the air inside the court.
The legend in Figure 1 explaining of the various types of services is as follows:

- S1 (short service) = within 1 meter from the baseline
- S2 (Average service) = from 1 to 3 meters from the baseline
- S3 (long service) = from 3 to 5 meters from the baseline
- S4 (service in jump) = from 5 meters

Table 1 Chart of summary of the quality of services in relation to the distance of execution

<table>
<thead>
<tr>
<th>Service</th>
<th>In jump</th>
<th>Long</th>
<th>Average</th>
<th>Short</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aces</td>
<td>15 (10,4%)</td>
<td>38 (7,5%)</td>
<td>4 (5,2%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Services failed</td>
<td>32 (18%)</td>
<td>48 (9%)</td>
<td>8 (10,1%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Bad reception opposing team</td>
<td>12 (6%)</td>
<td>25 (6,4%)</td>
<td>5 (4,1%)</td>
<td>4 (28%)</td>
</tr>
<tr>
<td>Fast attacks opposing team</td>
<td>35 (17,5%)</td>
<td>86 (24%)</td>
<td>16 (25,1%)</td>
<td>3 (24%)</td>
</tr>
</tbody>
</table>

Results and discussion

Figure 2. shows the percentage distribution of the type of service used by the teams.

The conclusion is that the service in jumping carries a high risk and therefore one wonders whether its excessive use is justified. A team performs a service in jump, or to get an immediate point or cause poor reception, or to obstruct the opposing team in the execution of the counterattack. It is seen then that the relative number of aces does not depend on the type of service. A similar result has been obtained when each team has been considered also individually. The best counter-attack in volleyball is represented by the attack in quick combination, therefore we pass to the analysis of the number of fast attacks, carried out by all teams in relation to the distance of execution the service of the opponents. The results shown in Table 1, show that fast attacks are independent from the distance of execution.

The influence of the side of receiving on the distance of execution is due to the selective preference of all teams to perform the services at average distance from the right side of the playing field (Fig. 3).
Side of receiving

Figure 3. Distribution of services in relation to the reception side

The time of flight of the ball during the service, by all teams analyzed, mainly depends on distance of execution; In fact, with regard to the short distance there is a difference between the average of the times of flight only for some teams, as well as in the case of medium distance. The results, however, about the long distance, are very significant and the average of the times of flight varies between the different teams. Finally, all teams that used mostly service in jump have showed significant differences in the average flight times of the service. Therefore, teams do not have the same mean of the times of flight also because the service was not performed from the same distance. The results will be useful for identifying the errors and to analyze the causes, to suggest different ways of analysis and self-analysis of technical movements for educational purposes, and also for a hypothetical different way to teach specific technical gestures, using video feedback (Raiola, Di Tore, 2012ab, Raiola 2011, 2012).

Conclusions

The above results indicate that in volleyball of high level the service in jump does not produce a significant advantage, although this should not lead us to reject the service in jump as tactical choice, since a match between two teams of high level is played and is decided on small details, which inevitably they have a decisive influence. The video analysis is very useful to understanding the performance and can help coaches to understand what to focus attention on in training and how to facilitate rapid learning of basic tactics and techniques that can be used by athletes for competition results. Finally, the analysis of the results can have a psychological effect on the players, in fact, a negative value judgment can lead to low self-esteem and increase anxiety, instead of receiving a positive judgment is psychologically strategic, not just for the account that will be of himself, but also to enhance its position within the group and compared to the other (Altavilla, Raiola, 2014, 2015).

References


ANALIZA NEKIH ASPEKATA SERVISA U ODBOJCI

Sažetak
Ovo istraživanje ima za cilj pružiti taktičku analizu servisa u odbojci kroz analizu utakmice i statistički softver različitih natjecanja najbolje talijanske odbojkašice na servisu. Analiza servisa je razvijena u odnosu na udaljenosti od izvršenja od početnih vrijednosti, te je rezultirano učinkovita i potvrđuje kako mnogi vrhunski timovi imaju različite distribucije, prepoznavajući se za prosječno vrijeme leta lopte u odnosu na udaljenosti od izvršenja. Na kraju, napravljeno je statističko istraživanje u vezi temeljne od individualnih tehnika, servis u skoku koji pokazuje postotak neuspjeha veći od ostalih vrsta servisa, dok je njegova učinkovitost nešto upitna kada se govori o visokoj razini timova.

Ključne riječi: analiza utakmice, servis, recepcija, udaljenost od izvršenja, vrijeme leta

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