

MATCH ANALYSIS AND VIDEO EDITING USING DATA VOLLEY AND DATA VIDEO SYSTEM

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INTRODUCTION

There are two objects for this presentation:

- 1) Introduce a match analysis and video editing system for sitting volleyball. Data Volley and Data Video System - softwares are used as tools.
- 2) Introduce match analysis results from the matches of European Championships 2003 (men and women) and Paralympics 2008 (women).

SOFTWARES

Data Volley and Data Video System are softwares used widely in volleyball. Data Volley is a match analysis software and Data Video System a video editing software which can utilize Data Volley analysis data. Teams use the softwares for analysing matches and training sessions and for the preparation to upcoming matches.

MATCH ANALYSIS RESEARCH

Methods

A total of eleven sitting volleyball matches from the European Championships 2003 and Paralympics 2008 (table 1) were videotaped and analyzed with Data Volley -software. Every serve, reception, spike and block was coded including following information: player, position and result of the action.

Table 1. Information concerning the analysed matches.

Sex	Competition	Number of matches	Number of sets
Male	EC2003	4	12
Female	EC2003	4	13
Female	Paralympics 2008	3	9

The means and SDs for each team per set were calculated for the number of serves, receptions, attacks, kill blocks and opponent errors as well as for the success percentages in serving, receiving and attacking. The results between men and women and also between winning and losing teams per set were compared using t-test for independent samples.

Results

Men vs. Women 2003:

One team performed in one set on average 22.0 ± 4.5 serves in men's matches and 20.3 ± 5.6 serves in women's matches. The number of receptions was 19.1 ± 4.4 and 17.2 ± 5.7 , attacks 32.4 ± 7.3 and 23.0 ± 6.1 (***) , kill blocks 3.5 ± 2.0 and 2.3 ± 1.4 (*) and opponent errors 5.4 ± 2.0 and 5.8 ± 2.2 , respectively. The success percentages in serving were 32.0 ± 10.0 for men and 46.0 ± 12.8 for women (***) , in reception 67.7 ± 8.6 and 49.5 ± 15.1 (***) and in attack 35.4 ± 10.3 and 35.9 ± 14.8 , respectively.

Women 2003 vs. 2008:

One team performed in one set on average 20.3 ± 5.6 serves in 2003 and 21.2 ± 4.2 serves in 2008. The number of receptions was 17.2 ± 5.7 and 19.3 ± 4.3 , attacks 23.0 ± 6.1 and 28.8 ± 6.0 (**), kill blocks 2.3 ± 1.4 and 2.8 ± 1.3 and opponent errors 5.8 ± 2.2 and 5.7 ± 2.6 , respectively. The success percentages in serving were 46.0 ± 12.8 in 2003 and 40.5 ± 13.4 in 2008, in reception 49.5 ± 15.1 and 55.1 ± 15.3 , in attack 35.9 ± 14.8 and 35.3 ± 12.9 , respectively. The ace percentage (19.6 ± 11.0 and 11.8 ± 6.3 , **) and error percentage in receiving (25.2 ± 13.3 and 16.4 ± 8.3 , *) decreased from 2003 to 2008.

Winning teams vs. losing teams:

In men's matches 2003 the teams that won a set had higher success percentages in serving (36.2% vs. 27.8% , *) . In attacking the winning teams had higher success percentages (40.4% vs. 30.4% , *) and lower error percentage (12.2% vs. 24.8% , **) . Also the winning teams made more successful block actions per set (4.8 vs. 2.2 ; ***) .

In women's matches 2003 the teams that won a set had higher success percentages (45.9% vs. 25.9% , ***) and lower error percentage (15.2% vs. 23.9% , *) in attacking. Also the winning teams made more successful block actions per set (3.0 vs. 1.7 ; *) . In 2008 the teams that won a set had higher ace (15.7% vs. 7.9%) and success (45.1% vs. 35.8% , *) percentages in serving. Also the teams that won a set had higher success percentages (43.8% vs. 26.7% , **) and lower error percentage (17.1% vs. 23.6% , *) in attacking.

Discussion

Based on the results of this objective match analysis from 2003 the biggest differences between men's and women's sitting volleyball matches were detected in the number of attacks and kill blocks and in the success percentages of serving and receiving. The level of receiving improved when the women's results from 2003 and 2008 were compared. Thus also the number of attacks increased. In other skills no significant changes were observed. Also it can be said that the most important skills concerning winning were serving and attacking in sitting volleyball.