



NOTATIONAL ANALYSIS OF PLAYING ABILITY ON MEN HANDBALL TEAMS

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Abstract:

The purpose of the study was to assess the playing ability by notational analysis system for men handball players. To achieve the purpose of the study the four teams those who participated in the Madurai Kamaraj University Inter-Collegiate Handball Tournament 2017-18 for men were selected. The teams were SVN College, American College, Arul Anandar College and Madurai Kamaraj University, Madurai. The age of the men handball players ranged from 18 to 24 years. The following match analysing factors which are expected to give the complete performance of the team & individual five factors were finalized. A panel of experts consisting of coaches, players and experts as well as fellow researchers aided in the development and ranking of performance scores for the effects of each skill as it is performed during the game. Each attempt was noted according to whether the attempt was off-target, on-target, or resulted in a goal. The pass was evaluated according to the result, such as if the other team intercepted the pass or it resulted in a scoring opportunity. Cards received by the players, penalty shoot were carefully noted. The data was collected during the real time match. The collected data were analysed statistically using mean and standard deviation. The outcome of the study might act as a tool to analyse the team & individual performance in the game of Handball.

Key Words: Notational Analysis, Playing Ability, Development & Handball.

Introduction:

In professional sports, notational analysis is the study of movement patterns, strategy and tactics in team sports. Successful patterns of play can be identified and used in subsequent matches. Notational analysis is a way that critical events in a performance can be quantified in a consistent and reliable manner. In notational analysis, no change in performance of any kind will take place without feedback. The role of feedback is central in the performance improvement process, and by inference, so is the need for accuracy and precision of such feedback. The provision of this accurate and precise feedback can only be facilitated if performance and practice is subjected to a vigorous process of analysis (Gillet, et al. 2009).

Handball is a popular indoor sport played at all levels from recreational to fully professional with origins in Scandinavia from the early 19th century. Handball has been an Olympic sport for men since 1972. This sport is a full body contact sports with 7 a side teams. The aim is to throw the ball into the opponents goal, past the goalkeeper and 6 players defence formed around the D-zone which is in 7m radius around the goal itself (on a 20x40m court size). Handball is known for its intermittent tempo, i.e. fast pace and rapid change between defence and offence, basing performance on multiple factors such as endurance, coordination and strength. In this way, the relatively small court size and rules of the game provide opportunities for frequent displays of shooting, hitting, pushing, blocking, jumping and running. On the other hand, game related statistics in performance analysis is a very popular method used in handball. This method analyses the game related statistics in function game situation or player position. The outcome of the study might act as a tool to analyse the team & individual performance in the game of Handball. At the end it was concluded with possible enhancements in the project, it would take us to the next level in digital match analysis system in Handball.

Methodology:

The purpose of the study was to assess the playing ability by notational analysis system for men handball players. To achieve the purpose of the study the four teams those who participated in the Madurai Kamaraj University Inter-Collegiate Handball Tournament 2017-18 for men were selected. The teams were SVN College, American College, Arul Anandar College and Madurai Kamaraj University, Madurai. The age of the men handball players ranged from 18 to 24 years. The following match analysing factors which are expected to give the complete performance of the team & individual five factors were finalized. The factors were,

- ✓ Total goals scored by each team
- ✓ Total Number of attempt at goal by each team
- ✓ Total Number of passes by each team
- ✓ Total Number of cards received by each team

- ✓ Total Number of penalty by each team

A panel of experts consisting of coaches, players and experts as well as fellow researchers aided in the development and ranking of performance scores for the effects of each skill as it is performed during the game. Each attempt was also noted according to whether the attempt was off-target, on-target, or resulted in a goal. The pass was evaluated according to the result, such as if the other team intercepted the pass or it resulted in a scoring opportunity. Cards received by the players, penalty shoot were carefully noted. The data was collected during the real time match. The collected data were analysed statistically using mean and standard deviation. The mean and standard deviation of the data was presented in the table I to V.

Results:

Table 1: Total Goals Scored by Each Team

S.No	Teams	Mean	SD ±
1	SVN	29.50	2.14
2	MKU	15.25	1.38
3	AMERICAN	24.50	2.0
4	AAC	21.00	1.87

It was found from the above table that the SVN College is having higher mean value followed by American College, Arul Anandar College and Madurai Kamaraj University.

Table 2: Total Number of Attempt at Goal by Each Team

S.No	Teams	Mean	SD ±
1	SVN	45.25	3.24
2	MKU	31.00	2.86
3	AMERICAN	46.50	4.56
4	AAC	50.25	3.33

It was found from the above table that the Arul Anandar College is having higher mean value followed by American College, SVN College and Madurai Kamaraj University.

Table 3: Total Number of Passes by Each Team

S.No	Teams	Mean	SD ±
1	SVN	140.25	5.47
2	MKU	95.50	6.27
3	AMERICAN	130.25	8.35
4	AAC	112.25	5.22

It was found from the above table that the SVN College is having higher mean value followed by American College, Arul Anandar College and Madurai Kamaraj University.

Table 4: Total Number of Cards Received by Each Team

S.No	Teams	Mean	SD ±
1	SVN	4	0.18
2	MKU	3	0.36
3	AMERICAN	6	0.11
4	AAC	8	0.19

It was found from the above table that the Arul Anandar College is having higher mean value followed by American College, SVN College and Madurai Kamaraj University.

Table 5: Total Number of Penalty Shoot by Each Team

S.No	Teams	Mean	SD ±
1	SVN	7	0.14
2	MKU	4	0.25
3	AMERICAN	2	0.07
4	AAC	5	0.16

It was found from the above table that the SVN College is having higher mean value followed by Arul Anandar College, Madurai Kamaraj University and American College.

Conclusion:

- ✓ It was concluded that the match analysing system would be very much helpful to the Coaches, Players, and Physical Educationists in enhancing the performance level of the Handball players.
- ✓ The outcome of the study might act as a tool to analyse the team & individual performance in the game of Handball.
- ✓ At the end it was concluded with possible enhancements in the project, it would take us to the next level in digital match analysis system in Handball.

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