



ANALYSIS OF ATHLETES' TECHNIQUES AND STRATEGIES IN SEPAK TAKRAW MATCHES IN DOUBLE EVENT NUMBERS (CASE STUDY OF PRE PON SEPAK TAKRAW REGION III 2023)

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Abstract

Analysis of athletes' skills, techniques and strategies in sepak takraw matches is important to create training programs to improve athletes' ability to compete. The purpose of this study is to analyze the service, smash, and block skills in the men's athlete competition in PraPON 2023. The match video was recorded in 6 sets of the pre Pon region III 2023 men's sepak takraw final match using a video camera placed behind the field. The data analysis technique in this study uses an independent sample t test with the help of the SPSS statistical application for windows version 26.0. The results showed that the ability of service and smash on the winning team with the loser there was no significant difference. Both teams have good skills in terms of service and smash in sepak takraw matches. The results of the hypothesis test for block ability show a difference between the winning team and the losing team. The winning team has a lower fail block compared to the losing team. The results of the analysis found that the strategy that can be done by the sepak takraw athlete team is to increase the ability to block so as to reduce the failure rate in blocking. This aspect is what makes one of the teams lose the match.

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INTRODUCTION

The game of sepak takraw is a team game, where the success of a team is greatly influenced by the skills of the individuals who play in that team. To be able to play sepak takraw well, each individual player in a team (team) must master the basic techniques of playing well (Heriansyah, 2021). A sepak takraw team called a squad consists of three positions namely tekong, passer and smasher. Each position has a specific role during the game (Kosni et al., 2018), as Tekong served to service, smasher Duty to smash and block So as to produce points, the pass is in charge of forwarding the ball to smasher.

Mastery of the basic techniques of the big ball game is the element that determines the loss and victory of the team in the match (Maulana, 2016). Therefore, the technical ability of each player must be able to build teamwork in attacking and defending in a sepak takraw match, so that the goal of winning the match will be achieved. The basic techniques of sepak takraw that must be mastered by every player are sepak sila, sepak kura, memaha, service, bait block and smash (Hanif, A. S., Hakim, A. A., Or, S., Or, M., & Basyiruddin, 2015).

The rule applied in sepak takraw is to use the system rally point With a target of reaching 21 points, and if both teams reach a score of 20-20, the game will continue until one team scores two more points than the opposing team, with a maximum point gain of up to 25 (SP Saharullah, 2018). According to Hughes and Behan, performance modeling using point-by-point play can offer a new perspective on variability and stabilization of player performance during games, sets, and matches in game sports (Gómez et al., 2021). When evaluating the various aspects of skill seen in a sports match game, seperti service, block, smash, receive, and passing, it seems natural that teams with minimal errors tend to have a greater chance of success.

Results observed by Dwiansyah (2021) reveal the significant influence of success service, block, smash (which resulted in direct

points) on the results of the sepak takraw match of the Asian games final.

The game of sepak takraw is ideally played by 3 players with different positions but according to the times, there are several match numbers, namely: double event which is played with 2 players and numbers quadrant with 4 active players on the field. (Judge, 2017). Number double event Sepak Takraw was only introduced starting in 2005 which was played by 2 people in one team. The rules of the game are the same as in team sepak takraw, only players who service not from the region Circle (usual tekong place service), but from the back line (base-line) with the ball bounced by itself and played over the net.

Sepak takraw in Central Java has experienced significant development and progress from year to year both at junior and senior levels. Various achievements have been inscribed by Central Java sepak takraw athletes both at regional and international levels. Central Java sepak takraw is a province that counts in national sepak takraw competitions. This is sustainable by having a sufficient contribution to the strength of the Indonesian team athletes. This progress has become a special concern for sepak takraw coaches and coaches to continue to advance achievements. So that the view of the sport of sepak takraw will be better and more considered from all aspects. The importance of analyzing athletes' technical skills in Pre-Pon matches is carried out to obtain the results of individual performance evaluations of athletes and teams in preparation for the next matches, such as Pon 2024 and other championships.

Based on the background of the problem described above, the author wants to conduct a study entitled "Analysis of Athletes' Techniques and Strategies in Sepak takraw Matches in Double Event Numbers (Case Study of Pre-Pon Sepak takraw Region III 2023)".

METHODS

This study used an approach mixed method. Research that collects and integrates quantitative and qualitative data in order to

produce a comprehensive understanding of the phenomenon under study (Moleong, 2021). Research approach used yaitu convergent or concurrent. Convergent or concurrent is a quantitative and qualitative collection of data.

The mixed model combination method is a research procedure in which researchers combine quantitative and qualitative data to obtain a comprehensive analysis to answer research problems (Suggestion, 2017)".

The sample of this study is male sepak takraw athletes who take part in prapon region III 2023. In this concurrent approach combination research , quantitative and qualitative data collection is carried out at one time, and alternately in a not too long time interval. Quantitative data collection techniques using instruments that have been tested for validity and reliability. With this data collection technique, quantitative data were obtained about athletes' techniques in sepak takraw matches. Quantitative data is then carried out qualitative data collection to produce more in-depth, useful, and broader research. The qualitative data collected is related to the techniques and strategies of athletes in the sepak takraw double event.

Data analysis techniques are ways of mapping, deciphering, calculating, and reviewing data that has been collected in order to answer problem formulations and obtain conclusions in research. Data analysis techniques are methods used with regard to calculations to answer problem formulations and test hypotheses proposed in research (Suggestion, 2018).

Quantitative data were analyzed using descriptive statistics. The data obtained is then carried out statistical tests with the help of the SPSS statistic for windows version 26.0 application. The collected quantitative data is analyzed using descriptive techniques by calculating relative frequencies expressed in percentage form. Test the hypothesis in this study using an independent sample t test.

RESULTS AND DISCUSSION

Based on the results of research data analysis for the difference in the description of the winning team and the losing team can be presented in the following table

Table 1 Differences between Service Teams Winning and Teams Losing

Aspects	Min	Max	Average	Sum
Service sign-in	11	19	15,3	92
Menang lose	14	19	17	102
Ace Service				
Menang	0	3	1,8	11
Lose	1	2	1,3	8
Service gagal				
Menang	1	4	2,8	17
Lose	1	4	1,8	11

Based on the results of data analysis, the difference between the winning team and the losing team is known to have several differences from each aspect. Service entry for the team won the least each set of service entry 11 times, the highest 19 times, the total number of service entries was 92 and the average service was 15.3 times for 6 sets of matches. Service entry for the team loses the least each set of service entry 14 times, the highest 19 times, the total number of service entries is 102 and the average service is 17 times for 6 sets of matches.

Service failed for the team to win the smallest time each set to serve in 1 time, the highest 4 times, the total number of services entered 17 times and the average service 2.8 times for 6 sets of matches. Service failed for the team losing the smallest each set failed service 1 time, the highest 4 times, the total number of services entered as many as 11 and the average service was 1.8 times for 6 sets of matches.

Service ace for the team wins the least every set to serve 0 times, the highest 3 times, the total number of services entered 11 times and the average service is 1.8 times for 6 sets of matches. Service aces for teams lose the least each set to service aces 1 time, the highest 2 times, the total number of service aces 8 times and the average service is 1.3 times for 6 sets of matches.

Based on the results of data analysis using independent t test samples. The test results can be presented as follows.

Table 2 Hypothesis Test Results 1

Aspects	T count	Say	Information
Service sign-in	1,206	0,256	Rejected
Ace Service	0,958	0,360	Rejected
Service gagal	1,482	0,169	Rejected

Source: Data processing

The results of the hypothesis test are known that for the difference in the ability of service to enter the team indeed with the losing team shows that the calculation t is 1.206 with a significant 0.256. The sigifikan value of 0.256 is greater than 0.05 ($0.256 > 0.05$). This means that the hypothesis is rejected that for incoming services **there is no** significant difference between the winning team and the losing team. The results of the hypothesis test are known that for the difference in the ability of the service ace of the winning team with the losing team shows that the calculation t is 0.958 with a significant 0.360. The sigifikan value of 0.360 is greater than 0.05 ($0.360 > 0.05$). This means that the hypothesis is rejected that for incoming services **there is no** significant difference between the winning team and the losing team. The results of the hypothesis test are known that for the difference in the ability of failed service teams to win with losing teams shows that the calculation t is 1.482 with a significant 0.169. The sigifikan value of 0.169 is greater than 0.05 ($0.169 > 0.05$). This means that the hypothesis is rejected that for incoming services **there is no** significant difference between the winning team and the losing team.

The results of this study are supported by research conducted by Irawan et al., (2021) indicates that service What many athletes use in their research is service deep. There are several that use service back and show the result service better compared to service deep. The superiority

of the back's serve results in a high-speed ball. The study also shows that athletes are doing service Using the back technique makes points easier to achieve for his team. However, in carrying out service Back technique is difficult for just any athlete to do in a number sepak takraw match double event.

Based on the results of data analysis using independent t test samples. The test results can be presented as follows.

Table 3 Hypothesis Test Results 2

Aspects	T count	Sig	Information
Smash point	1,184	0,264	Rejected
Smash gagal	0,257	0,802	Rejected

Source: Data processing

The results of the hypothesis test are known that for the difference in smash point ability, the winning team with the losing team shows that the calculation t is 1.184 with a significant 0.264. The significant value is 0.264 greater than 0.05 ($0.264 > 0.05$). This means that the hypothesis is rejected that for smash points **there is no** significant difference between the winning team and the losing team.

The results of the hypothesis test are known that for the difference in the ability of smash failed teams winning with losing teams showing that the calculation t is 0.257 with a significant 0.802. The significant value is 0.802 greater than 0.05 ($0.802 > 0.05$). That is, the hypothesis is rejected that for a failed smash **there is no** significant difference between a winning team and a losing team.

Based on the results of the study, it is known that male sepak takraw athletes in the double event number who participated in the 2023 region III prapon showed that in general, 78.38% of smashes made points for their teams. These results show that in the game of sepak takraw most of the points are derived from the athlete's smash ability. However, the smash is also thwarted, killing the game for the team doing the smash. Smashes are not only techniques to get points but can give points to the opponent when

the smash is thwarted by the opponent through blocks.

The results of statistical tests for differences in smash ability processed using SPSS v.26 independent sample t test showed that for smash ability there was no significant difference. The winning team and the losing team for the smash aspect did not have a significant difference. The test results are known p value or significantly greater than 0.05. This means that the hypothesis is rejected that there is no significant difference in smash ability in male sepak takraw athletes in the double event number participating in Prapon Region III 2023. Smashes that kill the opponent's game will then give points to his team.

The results found that the types of smashes used by male sepak takraw athletes in the double event number participating in the 2023 region III prapon were mostly roll smashes or role spikes. Athletes who use smash rolls are 88.64% while those who use smash kedeng only as much as 11.36%.

Based on the results of data analysis using independent t test samples. The test results can be presented as follows.

Table 4 Hypothesis Test Results 3

Aspects	T count	Sig	Information
Block point	1,000	0,341	Rejected
Block gagal	2,366	0,042	Accepted

Source: Data processing

The results of the hypothesis test are known that for the difference in the ability of block points the winning team with the losing team shows that the calculation t is 1.000 with a significant 0.341. The significant value is 0.341 greater than 0.05 ($0.341 > 0.05$). This means that the hypothesis is rejected that for block points **there is no** significant difference between the winning team and the losing team.

The results of the hypothesis test are known that for the difference in the ability of the failed block of the winning team with the losing team shows that a t count of 2.366 with a significant 0.042 is obtained. The significant value is 0.042 less than 0.05 ($0.042 < 0.05$). This

means that the **hypothesis is accepted** that for a failed block there is a significant difference between the winning team and the losing team.

The results of this study are supported by research conducted Aji (2021) indicates that block What fails makes it easy for his team to lose points. So that the opposing team will get additional points. The results of the study showed that the ability block significantly different. Ability block must be improved so as not to easily fail in doing the fortifications of Smash enemy.

The results showed that the most important abilities possessed by athletes are the ability to serve, smash, and block. The results showed that the ability to block makes the team win in the match. The team that makes a lot of block errors or failed blocks will make the opposing team name a point in the match. Research shows that there are failed blocks by 89.99%. The team that makes a mistake or fails to block proves to lose the match. This is different from the team that wins where it only fails to block less.

In general, service and smash abilities are still included in the same category where service ability only contributes 10.86% points. This is smaller than the failed service of 14.67%. In a Sepak Takraw match, the main double event service number is to enter first. The service to trouble the opponent is very small, from the results of the study showed that the amount of service ace is only 10.86%. In addition, based on the test results, the ability of service for points on the winning team and the losing team does not appear to have a significant difference. This means that the majority of service capabilities are the same.

The results of the analysis showed that the aspect that made the winning team of the men's Pre Pon sepak takraw number double event region III was the ability to block. The team that wins very few blocks fails. Conversely, the losing team does more failed blocks. The results showed that 89.99% of losing teams made failed blocks. In addition to the technical factors possessed by athletes, the mental factors of athletes also determine victory in matches. This is proven

where this Prapon match is held in the Central Java region. However, the representative participants from East Java who have good mental and emotional control make them remain calm in competing. As a result of good emotional control, East Java continues to play well and make the champion for region III

CONCLUSION

Based on the results of research and discussion, the conclusion in this study is that service and smash teams win with losing teams there is no significant difference. This means that both teams have the same ability so that service entry, service ace, service failure, smash point and smash fail are included in the same category. The results of the hypothesis test found that failed blocks were significantly different between the winning team and the losing team. That is, the losing team made more failed blocks compared to the winning team. In sepak takraw, the double event block number is an important aspect in blocking the opponent's smash attack, making it difficult to even get points for the team. Coaches should focus on increasing block training and pay attention to block techniques and anthropometry of their athletes so that the chances of winning the match are high.

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