

# **The Difference in the Effectiveness of the Service Over the Foot and Instep in Part Against the Capabilities of the Service Olobangau Sepak Takraw Athletes Padang Pariaman**

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## **ABSTRACT**

This article was written to see the difference between the upper part of the foot in the service and the instep against the capabilities of the service Olobangau sepak takraw Athletes Padang Pariaman. The type of research that is *Expost Facto*. The population was all over Padang Pariaman Olobangau Athletes who are registered and active following exercise. Samples taken with Purposive Sampling technique, thus the number of samples that is 20 people was divided into two groups. The data were analyzed using t-test analysis. From the results of the analysis, it shows that the ability of the service over the foot (mean=32) was better than the inner part of the foot (mean=28.4). In addition, the t-test result shows that  $t_{value} = 1.7341 > 1.95$ . Thus, it can be concluded that the service over the foot was better than the service using instep.

**Keywords:** *Sport, Sepak Takraw, Service, Expost Facto*

## **1. INTRODUCTION**

Exercise is a useful activity and can increase physical fitness. In addition to fostering character, personality, discipline, and sportsmanship, it can also improve thinking ability and developmental achievements. One sport that needs to be fostered and improved is the sport of sepak takraw. Sepak takraw is one of the sports games whose development is quite encouraging, especially in West Sumatra. Sports are much favored by students to the younger generation. This is seen from the emergence of sepak takraw clubs both in the school and community, such as the Olobangau sepak takraw club, Padang Pariaman Regency. "A sepak takraw athlete must have good abilities and skills in playing. Service is one of the special techniques that must be studied" [1]. Service is the beginning and form of attack that has been planned and is expected to immediately get a number (point) or at least can make the opponent's defense overwhelmed and unable to manage attacks.

Achieving achievements in sports is not an easy job. It takes maximum effort to achieve these achievements. Therefore, training, development and development of athletes are needed in a designed, tiered, and sustainable manner. Increasing competence as an effort to achieve achievement

needs to be supported through the science and technology of the sports of a nation.

Sepak takraw is a sport that has many names or designations. If in Indonesia this sport is known as sepak takraw, then other countries have different designations. Malaysia and Thailand refer to this sport as the kick ball term, while in the Philippines this sport is called sipa, in Myanmar it is called ching long, and in Laos it is called the kator.

Sepak takraw is one of the sports games whose development is quite encouraging, especially in West Sumatra. Sports are much favored by students to the younger generation. This is seen from the emergence of sepak takraw clubs both in the school and community, such as the Olobangau sepak takraw club, Padang Pariaman Regency. Through these clubs coaching and selection are conducted. For those who are gifted, they are fostered at the Student Sports Training Education Center (PPLP), under the auspices of the West Sumatra Youth and Sports Education Office. So that in the future, produced athletes who excel.

A sepak takraw athlete must have good abilities and skills in playing. The ability that needs to be possessed by a sepak takraw player is a special technical ability. Mastery of special techniques needs to be owned and trained continuously.

Mastery of technique is one of the capital to win the match. In other words, without mastering techniques, especially special techniques, it is impossible for a person to achieve good performance. Mastery of techniques in the game sepak takraw is very important to have, including athletes sepak takraw club Olobangau District Padang Pariaman. To improve the basic skills of playing sepak takraw, an athlete tries to improve special techniques in the game of sepak takraw perfectly. However, there are still very prominent shortcomings in athletes, namely mastery of special techniques.

The sepak takraw service game is divided into two ways, namely service down and top service. Service below, where the player is standing with one leg in the circle as a foot, the other foot is on the back side as a prefix. The ball is kicked on the height of the ball is knee-high. "After doing the kick, the body movements followed the soccer movement and landed with a flat" [1]. While Service above, the Tekong body attitude is basically the same as the bottom service, only the legs that will be used to kick the ball are crossed farther behind the support leg, "so that it has sufficient distance to do fast and good movements" [2].

Service over in the sepak takraw game is done in two ways, "the first using the inner leg and the second using the foot back" [3]. Service for using the inner leg is the beginning and form of attack that has been planned and is expected to immediately get a number (point) or at least can make the opponent's defense overwhelmed and unable to manage attacks. In other words, the service for using part of the foot plays a very important role in determining victory in a match. So that in carrying out the service, the right and correct capabilities must be needed. The touch disadvantage of using the inner side of the foot is the amount of ball that is in the inner leg, so that the ball is often not right on the ball. Then the high possibility of the ball that will be kicked is not optimal, especially tekong has a body that is not too high. While the advantage of touching the inner side of the foot is the ease of movement in doing and does not have to have optimal flexibility.

Based on the previous analysis, the top service using the inner side of the foot is able to improve service capabilities. Some techniques which carry out the top service using the inner side of the foot, namely:

- a. One foot in a circle
- b. Faster leg movements
- c. Feet landed in front of the body
- d. This movement is similar to a punch in baseball
- e. Tekong (kicking the ball when the ball is high between the waist and shoulders
- f. The toe is facing forward to do service.



Figure 1. Service on the inner leg.

"In tekong service, it uses the back of the foot, basically the same as the service movement using the inner leg" [2], only the difference is when the ball is applied to the foot. It can be understood, that service using the back of the foot has a very important role in doing service. Therefore, it is very necessary to master the technique so that the top service can be done properly and correctly.

The disadvantage of doing top service using the back of the foot is, if Tekong lacks flexibility in the groin, the position when performing service is not optimal. While the benefits of doing top service using the back of the foot, the touch of the ball is relatively more profitable because the ball is more evenly distributed. Based on the previous analysis, the top service using the back of the foot is able to improve service capabilities.

Some techniques for doing service using a foot are :

- a. One foot is in a circle
- b. Kick legs crossed farther back
- c. The ball is between 8-10 feet high
- d. The ball is right on the back of the foot



Figure 2. Service on the back of the foot.

The service in sepak takraw should be performed well. Based on the author's observations and interview in in January 2016, the player' skill in service was considered unsatisfactory. In this case, the service used is the service the inside and back of the foot. This is evident, whereby a tekong is often failed in doing service and unable to perform optimally. As once the ball kicked, it hit the net, and did not get into the opponent's court and so on. However, there must be other factors that cause the problems. In general, it is divided into internal and

external factors. Intents and purposes researchers providing solutions related to the issues facing the Club Olobangau Padang Pariaman and also can add insights to researchers. Based on a theory that has been elaborated, it illustrates the distinction effectiveness of service upon using the feet the inside and back of the foot against the upgrade service in sepak takraw.

This research aims to know the difference in the effectiveness of the service over the foot and instep in part against the capabilities of the service Olobangau sepak takraw Athletes Padang Pariaman.

**2. METHODS**

This research used expo de facto design to examine the events that have happened and then look back to find out the factors that may cause the incident. This research was conducted to find the difference in service and parts in the foot instep against the ability of the Athlete service Olobangau Padang Pariaman. The sample was divided into two groups, group division based on trend and the habit of tekong in doing service top in two ways, namely, the use of the feet and the inside of the back legs. This research was carried out in June 2016 at the Club Olobangau Padang Pariaman.

The overall population is the subject of the study. Thus, the population in this research is the overall Athlete Olobangau Kab. Padang Pariaman are registered and active following exercise, as shown in the following table:

Table 1. Population Research.

NO	Age	Total (People)
1	U13-16 years (Male)	15
2	U17-19 years (Male)	20
3	U13-16 (Female)	10
<b>Total</b>		45

The population which was eligible to be used as sample in the research was the group aged U17-19 years (male) (Purposive Sampling). The reason to choose that group was based on their ability in performing the service. There was 20 athletes chosen as the samples which were divided into 2 groups.

The instrument used in this research was a test of the service ability. The data obtained in this study was the primary and secondary data. Primary data was directly taken from test and measurement against the capabilities of the upper service, whereas secondary data was the names athletes of the Club Olobangau Padang Pariaman obtained from the coach of the Club.

To analyze the data, analysis technique namely "t-test" was used. This is in accordance with the type of

research that researchers are doing. The t-test formula:

**3. RESULTS**

Based on the results of the tests, the ability of the service over the foot performed by 10 sepak takraw Athletes was; the obtained average (28.4), standard deviation (3.23), highest score (34) and the lowest score (23), mode (26) and median (28). While another test results were average (32), standard deviation (4.49), the highest score (42) and lowest score (27, 33) and median (31.5). Full details can be seen in table 5 below.

**3.1 Test Requirements Analysis**

**3.1.1. Data Normality Test**

In this research, firstly the reseracher conducted the test requirements analysis find out if the data were normally distributed through Gaussian or Liliefors test.

H<sub>0</sub>: L<sub>observasi</sub> < L<sub>tabel</sub> Gaussian data

H<sub>a</sub>: L<sub>observasi</sub> > L<sub>tabel</sub> the data is not Gaussian

Table 2. Summary of Data Normality Test.

Variabel	L <sub>observed</sub>	L <sub>table</sub>	Conclusion
Level Of Service Over The Foot	0,1704	0,258	Normal
Level Of Service Over The Instep foot	0,2129	0,258	Normal

The above shows that data was distributed normally since L<sub>observed</sub> were lower than L<sub>table</sub>.

**3.1.2 Homogeneity Test Data**

Testing is done by homogeneity test variants. This requirement pertains to indicate that data has a diversity/equality of variance. This means that the variance of the same population data, data in a homogeneous State. It can be seen on the following table.

Table 3. Test Results of variance.

The price of Y for groups	F count	F <sub>table</sub>	Conclusion
Level of Service Over the foot and Instep In Part against the capabilities of the service Olobangau Kab sepak takraw Athletes. Padang Pariaman.	1,93	3,18	Homogen

Based on table 11,  $F_{hitung} < F_{tabel}$  1.93 were 3.18 means that the variables examined, i.e. the ability level of service over the foot and instep in part against the capabilities of the service Olobangau sepak takraw Athletes Padang Pariaman are derived from a homogeneous population.

### 3.2 The Test of Hypothesis

The hypothesis presented in this study was the ability of the service over the foot and the inside part of foot against the capabilities of the service performed by Olobangau sepak takraw Athletes in Padang Pariaman. To test the hypothesis with a free sample coefficient of variance homogeneity test different formulas are used namely mean or test the analysis results  $t$ . It was obtained that  $t_{counted} > t_{table} = 1.95 > 1.7341$ .

From the explanation of the findings of research that has been said above, it can be interpreted that if the value of  $t_{hitung}$  is greater than the value obtained from  $t_{tabel}$  then the hypothesis presented in this study are accepted empirical, i.e. There is a significant difference between the level of service over the foot of the inside with the level of service capabilities over the instep against the capabilities of the service Olobangau sepak takraw Athletes Padang Pariaman.

Finally, "The availability of quality human resources who have excellent physical, mental and social conditions and mastery of science and technology are indicators of the success of a nation's development" [5].

## 4. DISCUSSION

The ability of the service referred to in this research is the capacity of athletes in doing service, which is the beginning of a game of sepak takraw to launch a game. In accordance with the research objectives i.e. to see the difference in service over the foot and instep in part against the capabilities of the service Olobangau sepak takraw Athletes Padang Pariaman. The hypothesis put forward was the ability of the service over the instep of the foot on the inside against the capabilities of the service Olobangau sepak takraw Athletes Padang Pariaman then. "The attitude of the body on top of the foot service tekong insides and backs away, just on essentially the same service over the instep perkenaan ball against the foot is more evenly distributed than in the upper part of the foot in the service" [4]. From the results of the research points out that there is a difference in level of service over the foot and instep part in sepak takraw Athletes Olobangau Padang Pariaman. The difference in the ability of the service over the foot of

the inside and the instep is known from the results of the analysis of test coefficient  $t$ , which acquired  $t_{hitung} = 1.95$  and  $t_{tabel} = 1.7341$ .

Furthermore, it was proved that the level of service capabilities over the instep is better compared with the level of service over the foot. It can be seen from the average (mean) calculated level of service over the instep is 32 and while the average value calculated (mean) rate the ability of the service over the foot part in IE 28.4.

Level of service is important for the athletes of sepak takraw, in accordance with its purpose is to measure the skills of sepak takraw athletes service capabilities. To have a good level of service capabilities, certainly many factors influence. Factors that affect the ability of the service such as sepak takraw suppleness (flexibility), balance, speed strength (explosive power), and coordination. While the factors that affect athletes in conducting service of internal factors and external factors. Internal factors include talent, interest, motivation, intelligence, Anthropometry, and physical condition. External factors include the friend exercises, exercises, field instruments, ball, and coaches.

## 5. CONCLUSIONS

Based on the results of the analysis and discussion of which has been described in the previous section, it can be drawn that the level of service over the instep with an average (mean) was 32 better than the service over the foot with the average (mean) 28.4 against the capabilities of the service Olobangau sepak takraw Athletes Padang Pariaman.

Referring to the conclusion above, it is recommended to:

1. The trainers to further improve the training system primarily especially on service skill.
2. Athletes to do more vigorous practice.

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