

Analysis of basic technical abilities of sepak takraw athletes

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ABSTRACT

Problems: The problem in this research is that the level of basic technical ability of PSTI sepak takraw athletes in Padang Panjang City is still unknown. **Purpose:** The aim of this research was to determine the level of basic technical ability of PSTI sepak takraw athletes in Padang Panjang City. **Methods:** This type of research is descriptive. This research was carried out on February 1 2024 at the PSTI Sepaktakraw Field, Padang Panjang City. The population in this study was 15 PSTI Padang Panjang City sepak takraw athletes. The sampling technique used was *Purposive Sampling*. The instrument in this study was a test of technical abilities relating to: controlling and holding the ball for 3 minutes for sila soccer, turtle kicks, kicks or head games. Data was analyzed using percentages. **Results:** results of the research based on data analysis are that the average athlete's kicking ability is 204 in the very good category, the average athlete's kicking ability is 244 in the very good category, the average athlete's walking ability is 179 in the very good category, the average athlete's heading ability is 125 with the less category. **Conclusion:** After averaging the basic sepak takraw technique, the result was 188.4, which fell into the "Very Good" category, because it was in the interval of more than 172. Thus, it can be interpreted that the PSTI sepak takraw athletes in Padang Panjang City have a basic technical ability level of "Very Good".

Keywords: Basic Techniques, Abilities, Sepak takraw

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Introduction

Sport is physical activity carried out regularly to improve body health and fitness, sports cannot be separated from human life, because human life consists of two aspects, namely the physical aspect and the spiritual aspect which cannot be separated (Yuningsih et al., 2024) (Komaini, 2017) (Haryanto & Welis, 2019) (Sepriadi et al., 2017) (Ridwan, 2020). If these two aspects develop and grow in harmony, a harmonious life will emerge in its growth (Alnedral, 2015). One way to harmonize physical and spiritual life in humans can be achieved by exercising (Saputra et al., 2023) (O'Donovan et al., 2010) (Yendrizal et al., 2023).

Sport is an important aspect of human life that has existed since ancient times (Bais et al., 2024) (Padli et al., 2019). In simple terms, sport can be defined as physical activity carried out regularly with the aim of improving health, fitness and athletic performance (Asdar, 2019) (Siedentop & Van der Mars, 2022). However, the definition of sport is not only limited to the physical aspect, but also includes social, psychological, and even spiritual dimensions for some individuals (Bulqini, 2021). Based on the quote above, it is known that one of the goals of sport is health and fitness and achievement (Siedentop & Van der Mars, 2022). "Achievement sports are sports carried out with the aim of achieving a high achievement." The purpose is to foster and develop sports branches that are directed at participating in national, regional and international matches or competition (Rowe et al., 2013).

The determining factors for athletes' achievement in sports can be classified into four:

(1). Biological aspects which include (a) physical conditions consisting of strength, speed, agility, coordination, power, muscle endurance, heart-lung endurance, flexibility, balance, accuracy and health in

sports, (b) function of organs body, (c) posture and body structure, (d) nutrition. (2). Psychological aspects include: intellectual, motivation, personality, coordination of muscle and nerve work. (3) environmental aspects include: social, facilities and infrastructure, weather, and family. (4) supporting aspects include: coaches, training programs, awards, funds, orderly sports organizations (Schnell et al., 2014).

Based on the quote above, it is clear that biological aspects influence athlete performance more than psychological, family and supporting aspects. From the other side, (Lin et al., 2021) stated that "factors that support athlete performance are technique, tactics, mental and physical condition". Physical training is a very important thing to do in sports (Adling, 2017). Because no matter how good his posture and body structure, tactics and mentality in playing are, if his physical condition declines, his playing technique will be lost. One way to achieve sports goals is by coaching each sport branch (Kurniawan & Utomo, 2021). Of the many sports, one of the sports that needs attention in its development is sepak takraw.

Sepaktakraw is a sport that is popular and growing in Indonesia. Sepaktakraw is a sport that has historical roots in Southeast Asia, and has become an inseparable part of sports culture and identity in Indonesia (Arwandi et al., 2023). This sport is popular with the younger generation. Sepaktakraw has a very important meaning, namely that it is a sport that must be developed and preserved, so that the culture of the Indonesian nation can be well maintained. (Nur, 2016) . This can be seen from the emergence of Sepaktakraw sports clubs, both in school environments and in the community. Through these clubs, training is carried out, then selection is carried out and training is carried out for the talented. They were trained at the West Sumatra youth and sports education center. In order to produce outstanding athletes in West Sumatra in the future (Lim, 2023).

"Sepaktakraw is a game that uses a ball made of rattan or *fiber* (takraw), played on a flat field measuring 13.40 m long and 6.10 m wide. In the middle is limited by a net or net like a game of badminton" (H. I. Marpaung & Siregar, 2022). The sepak takraw game can be said to be a combination or combination of three games, namely football, volleyball and badminton (Aji, 2021). The same as football because this game is played using the feet. The ball is played with all parts of the body except the hands. Like the volleyball game, the sepak takraw game volleys the ball to give feedback to friends to smash into the opponent's field (M. Nur & Ilham Kamaruddin, 2021). It's like badminton because the size of the court and net are almost the same as badminton. The idea of the sepak takraw game is to kill the ball on the opponent's playing field as many times as possible and try or ensure that the ball doesn't die in his own part of the field (Said & Syam, 2022). For this reason, a sepak takraw player needs skills, techniques and tactics in addition to being in prime physical condition for the athlete (Solis & Lipa, 2022). This can be done with playing techniques. namely *serving*, *smashing* and passing so that the expected achievements can be achieved.

To be able to play sepak takraw proficiently, you are required to have the ability to master basic techniques first, because in any sport without mastering basic techniques you will definitely not be able to master the sport well (Ramadhan & Fikri, 2022). Likewise with sepak takraw, without mastering the basic techniques you definitely won't be able to play sepak takraw well. In the sepak takraw game there are various techniques that must be mastered, namely basic techniques and special techniques. In the Padang Panjang City PSTI Team, the sepak takraw game is one of the youth development activities which was created as a forum for channeling talent. Coaching has been carried out well, but there are still many athletes lacking when performing basic techniques such as sila, sepak kura, thigh, head, etc. Technical skills can be mastered after carrying out a learning or practicing process (Adindra et al., 2016) . Among these basic techniques, the sepak takraw technique is a technique that is often used or dominantly used in sepak takraw games. Where sila football is a technique of holding the ball which aims to block the opponent's attack, pass it to a friend so that it can be smashed and thus create points.

From what the author observed when the author carried out joint training with the Padang Panjang City PSTI Team, many of the athletes there still did not or did not master all the basic techniques. The author saw that when athletes play games during training, they often make mistakes when carrying out basic techniques. To be able to perform good basic techniques, athletes must be able to master basic techniques and must also be trained in their physical condition. Factors that influence the basic skills of playing sepak takraw are physical condition, technique, tactics/strategy and mental condition (Boughattas

et al., 2022) . Likewise with facilities and infrastructure, achievement motivation, training programs, and the role of coaches (Cao et al., 2022) .

After making further observations while carrying out training at the PSTI Team in Padang Panjang City, the author found many mistakes by the athletes. When carrying out basic techniques in the game, the author found that there were still not enough athletes to carry out basic techniques so that defending and passing often failed. The author also found that athletes, when implementing basic ball techniques, often left the field because they lacked control.

It can be concluded that the essence of playing sepak takraw includes two aspects that can be developed, namely the artistic aspect and the achievement aspect. The artistic aspect relates to sepak takraw skills in playing and controlling the ball so that it can survive without falling. Meanwhile, the achievement aspect is by participating in all competitions at regional, national and international levels. In general, sport is essentially a person's physical and psychological activity which is useful for maintaining and improving the quality of health which involves a person's repetitive body movements (Malm et al., 2019). Meanwhile, the meaning of health itself is a normal condition, both physical and spiritual, experienced by living creatures. This design focuses on one sport, namely sepak takraw.

Method

This research is a type of descriptive research. The population in this study were all PSTI sepaktakraw athletes in Padang Panjang City , namely 15 men. Barlian (2016:36) explains that population is all units that have been assigned the desired information, therefore populations can vary according to the problem being studied. Furthermore, the population is the totality of all the values that exist on certain characteristics of the number of objects whose properties you want to study". Sugiyono (2010:80) explains that "Population is a generalization area consisting of objects/subjects that have certain qualities and characteristics that are determined by researchers to be studied and then conclusions drawn."

Sampling in this research was carried out using the *Purposive Sampling technique*, namely a sample determination technique based on consideration of the objectives set by the researcher, (Barlian, 2016:42). Based on this explanation, the sample that will be studied in this research is 10 people, considering that they often carry out joint exercises. Based on the expert's explanation above, this research will answer several research questions that have been asked: what is the description of the basic technical abilities of Padang Panjang City PSTI athletes. With regard to location, this research was carried out at the PSTI sepaktakraw field in Padang Panjang City. Meanwhile, the time for carrying out this research is February 1 2024. Based on the type of data required in this research is primary data, namely data directly collected by the researcher from the source through a test of the basic technical abilities of the sepaktakraw game. Meanwhile, secondary data from this research was taken from documentation or administration of sepaktakraw athletes sourced from Padang Panjang City Psti data.

Table 1. Population of PSTI Athlete in Padang Panjang City

No	Gender	Amount
1.	Son	15 People
2.	Daughter	-
	Amount	15 People

Table 2. Names of Padang Panjang City PSTI Athletes

No	Name	Gender	Age
1	Pungki	Son	27
2	Dayat	Son	28
3	Yudha	Son	26
4	Sahril	Son	27
5	Ridho	Son	27
6	Naafi	Son	23
7	Irwanto	Son	27
8	Mincai	Son	24
9	Eba	Son	27
10	Arifan	Son	21
11	Rivals	Son	25
12	Risky	Son	25
13	Wise	Son	25
14	Avil	Son	21
15	Ivan	Son	27

1. Test Instruments

The instrument used for data collection in this research is a *test score* , namely by measuring the variables contained in this research, Hanif (2020:26), namely:

- a. The kickball test is measured by how many times the player performs the kickball in 3 minutes.
- b. The turtle kick test is measured by how many times the player does turtle kicks in 3 minutes.
- c. The thigh test is measured by how many times the player performs thighs in 3 minutes.
- d. The heads-up test is measured by how many times the player plays heads-up in 3 minutes

2. Data collection process

The steps for collecting data in this research are as follows:

a. Preparation

Based on the steps the author prepares for taking tests and data, they include:

- 1. Received a research permit from the Faculty of Sports Science, Padang State University.
- 2. The next step is to contact the Padang Panjang City PSTI sepak takraw athlete coach, after getting a list of names of athletes. Researchers and trainers discuss research time and techniques, which are then used as research samples. The place of research was carried out at the sepak takraw field at Pasar Wave. The research time was carried out after this proposal was presented at a seminar and approved by the examiners.
- 3. Prepare tools and equipment for testing skills in soccer, turtle, kick and head games. The tools and equipment prepared can be seen in the following table:

Table 3. List of Tools and Equipment

No	Equipment Name	Amount
1	Stationery	2
2	Stopwatch	2
3	Pluit	2
4	Meter	1
5	Takraw Ball	2

Table 4. Form of Test Blank

Sample Name	Test Type	Time	Score
A	Football please	3 minutes	
	Turtle football		
	Understand		
	Playing Head		

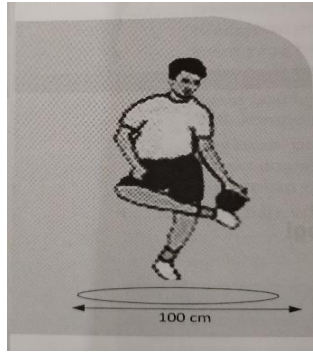
Table 5. Supervisors and Assistant Personnel

No	Name	Position	Task
1	Amiruddin	Coach	Test Supervisor
2	Muhammad Hanafi	UNP FIK student	Researcher
3	Pratama Inspiration	UNP FBS student	Help
4	Rudi Anggara	FMIPA UNP student	Help
5	Taufik Hidayat	FMIPA UNP student	Help

b. Implementation of the Precept Football Test

According to Hanif (2020:26), to measure the precepts test, it can be done using the precepts ability test, namely by:

- 1). The athlete stands in a prepared circle (1 meter in diameter, 50 cm in radius)
- 2). After the signal starts, the athlete begins to do the kicks
- 3). A ball that falls to the floor can be played again and the count continues
- 4). The height of the kick is not limited
- 5). Kicking time is limited to 3 minutes

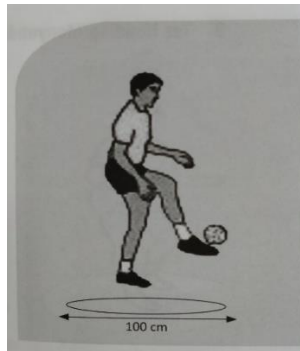


Sila Football Test Images (Hanif, 2020)

c. Implementation of the Turtle Test

According to Hanif (2020:26), to measure the turtle's football test, it can be done using the turtle's football ability test, namely by:

- 1). The athlete stands in a prepared circle (1 meter in diameter, 50 cm in radius)
- 2). After the signal starts, the athlete starts doing turtle kicks
- 3). A ball that falls to the floor can be played again and the count continues
- 4). The height of the kick is not limited
- 5). Kicking time is limited to 3 minutes

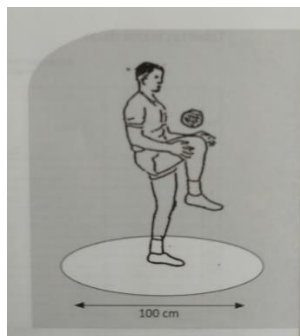


Kura Football Test Picture (Hanif, 2020)

d. Implementation of the Understanding Test

According to Hanif (2020:26), to measure the comprehension test, it can be done using a comprehension ability test, namely by:

- 1). The athlete stands in a prepared circle (1 meter in diameter, 50 cm in radius)
- 2). After the signal starts the athlete begins to do the thigh
- 3). A ball that falls to the floor can be played again and the count continues
- 4). The thigh height is not limited
- 5). Drumming time is limited to 3 minutes

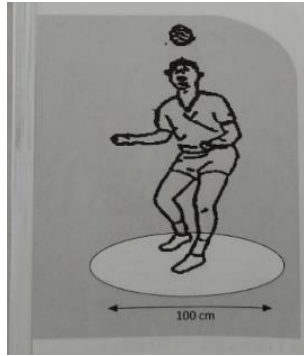


Thigh Test Image (Hanif, 2020)

e. Implementation of the Heading Main Test

To measure the head play test according to Hanif (2020:26), it can be done using a head play ability test, namely by:

- 1). The athlete stands in a prepared circle (1 meter in diameter, 50 cm in radius)
- 2). After the signal starts the athlete begins to do the thigh
- 3). A ball that falls to the floor can be played again and the count continues
- 4). The height of the header is not limited
- 5). Heading time is limited to 3 minutes



Head Play Test Image

Table 6. Test Scoring Norms

Normative	Category
Very Good/Very Good	>172
Good	156 -171
Enough	132 - 155
Not enough	108 - 131
Very less	<107

Source: Hanif, (2020:31)

D. Data analysis technique

Data analysis or data collection is an important step in research. The technique used to analyze the data is a descriptive technique, using the following percentage formula:

$$P = \frac{F}{N} \times 100\%$$

Information:

P = Percentage

F = Frequency

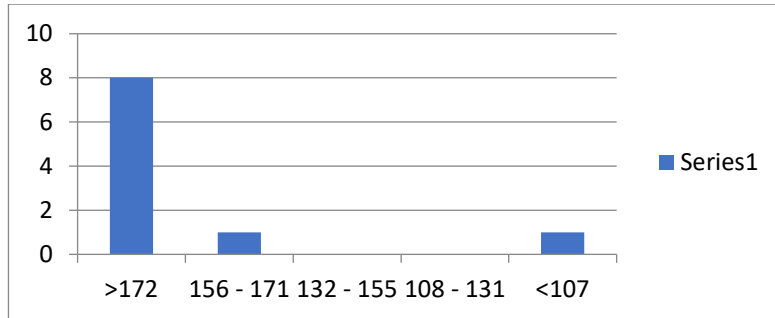
N = Number of Samples

Source:(Arikunto , 2013)

Result

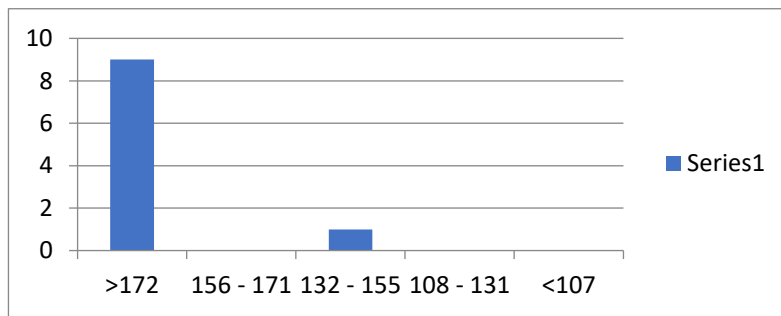
The results of this research are as follows:

Football Please



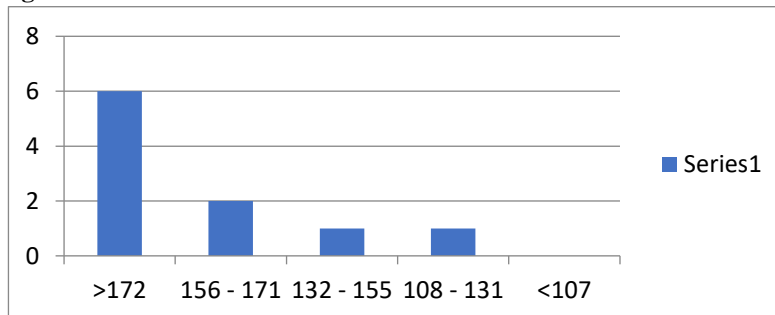
Based on the frequency distribution table of basic soccer techniques above, it can be concluded that of the 10 samples tested, 8 people (80%) had abilities in the very good category, with more than 172 soccer skills, and 1 person (10%) in the good category had soccer skills. sila between 156 and 171 times, the sufficient category is 0 people (0%) with the sila ability between 132 and 155 times, the poor category is 0 people (0%) with the sila ability between 108 and 131 times, the very poor category is 1 person (10%) with a sila ability of less than 107 times

Turtle Football



Based on the frequency distribution table of the basic kura turtle technique above, it can be concluded that from the 10 samples tested, 9 people (90%) had abilities in the very good category, with more than 172 kura abilities, 0 people (0%) in the good category (0%) with kura abilities. between 156 to 171 times, the sufficient category is 1 person (10%) with kura ability between 132 to 155 times, the poor category is 0 people (0%) with kura ability between 108 to 131 times, the very poor category is 0 people (0 %) with turtle capability less than 107 times.

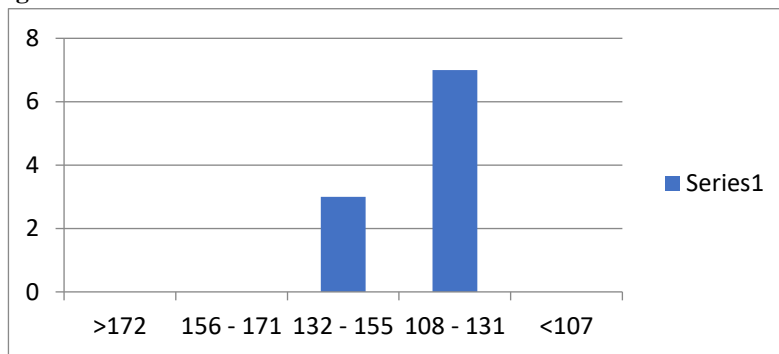
Understanding Football



Based on the frequency distribution table of the basic chewing techniques above, it can be concluded that of the 10 samples tested, 6 people (60%) had abilities in the very good category, with more than 172 times the ability to comprehend, 2 people (20%) in the good category with comprehension abilities between 156 to 171 times, the sufficient category is 1 person (0%) with the ability to comprehend between 132 to 155 times, the poor category is 1 person (10%) with the ability to comprehend between

108 to 131 times, the very poor category is 0 people (0%) with the ability to comprehend less than 107 times

Head/Heading Football



Based on the frequency distribution table of the basic head-playing techniques above, it can be concluded that of the 10 samples tested, there were 0 people (0%) with abilities in the very good category, with more than 172 heads-up abilities, 0 people (0%) with head-skills in the good category (0%). between 156 to 171 times, the sufficient category is 3 people (30%) with head abilities between 132 to 155 times, the poor category is 7 people (70%) with head abilities between 108 to 131 times, the very poor category is 0 people (0 %) with a head capacity of less than 107 times.

Discussion

Sepaktakraw is a sport that has been competed at regional, provincial and national levels (Kiram et al., 2023). Therefore, good basic techniques are needed in the sepaktakraw game. Apart from that, basic techniques also influence a person's performance in the sepaktakraw game, therefore, to support the performance of sepaktakraw athletes, good basic techniques are needed relating to sepak takraw, sepak kura, memaha and heading (H. Marpaung, 2020).

Football Please

From the results of the analysis of the cross-sila football test data on PSTI sepak takraw athletes in Padang Panjang City using assessment norms in the categories of very good, good, fair, poor and very poor. Padang Panjang City PSTI sepak takraw athletes on average are mostly in the very good category, namely 8 people (80%). Sepak sila is the most dominant basic technique in the sepaktakraw game, so as people say the sepak sila technique is the mother of the sepaktakraw game. Sila kick is kicking the ball with the inside of the foot, when kicking the position of the hitting foot is like crossing legs.

This would be better if the sila football of PSTI Padang Panjang City sepaktakraw athletes continues to be improved because sila football is really needed in playing sepaktakraw, especially in saving attacks from opponents. Without good basic techniques, one's sila football will not run correctly and it will be difficult to counter attacks from opponents because sila football is the main foundation in sepaktakraw (Yunitaningrum, 2019). For this reason, Padang Panjang City PSTI sepaktakraw athletes need to do more sila soccer training such as individual ball control exercises so that the basic sila football techniques of Padang Panjang City PSTI sepaktakraw athletes can become even better.

Therefore, sila football must continue to be trained and improved, because sila football in the sepaktakraw game is one of the main elements for defending the team from attacks by the opposing team. In cross-legged football training, for example, the exercise can be carried out by athletes independently or alone with repetitions in accordance with the expected goals. Furthermore, soccer practice can also be done in pairs. Another group exercise, this will provide good motivation because it can be varied with competition and punishment for those who lose in training.

Turtle Football

From the results of data analysis of the sepak takraw test on PSTI sepaktakraw athletes Padang Panjang City uses assessment norms in the categories very good, good, fair, poor and very poor. Padang Panjang City PSTI sepak takraw athletes on average are mostly in the very good category, namely 9 people (90%). Turtle football is a kicking technique using the back of the foot. This kick is also called

"horse kick". In the sepak takraw game, sepak takraw is used as a technique for playing the ball with a low and fast arrival or saving from an opponent's attack.

This would be better if the sepak takraw athletes of PSTI Padang Panjang City continued to be improved because sepak takraw is really needed in playing sepak takraw, especially in saving attacks from opponents. Without good basic techniques, a person's sepak takraw will not run properly and it will be difficult to mount an attack from the opponent because sepak takraw is included in the main foundation of sepak takraw. For this reason, Padang Panjang City PSTI sepak takraw athletes need to do more football training such as individual ball control exercises so that the basic football techniques of Padang Panjang City PSTI sepak takraw athletes can become better.

To improve the ability of sepak takraw, one of them is by doing the sepak kura practice correctly because the ability of sepak takraw is also very useful in the sepak takraw game, according to Zalfendi, et al (2017) sepak kura is used to play a ball that comes low and fast or hard, saving from opponent attacks, defend against opponent attacks, control the ball in an effort to save the ball.

Understand

From the results of the data analysis of the understanding test for PSTI sepak takraw athletes in Padang Panjang City using assessment norms in the categories of very good, good, fair, poor and very poor. The average ability of PSTI sepak takraw athletes in Padang Panjang City is in the very good category, namely 6 people (60%). Thigh is playing the ball with the thigh in an effort to control the ball. Memaha can be used to block and receive attacks from opponents. Menghama is a basic technique in the game sepak takraw by playing the ball on the thigh to control the ball and save the ball from the opponent's attack.

This would be better if the PSTI Padang Panjang City sepak takraw athletes' understanding was further improved because understanding is very much needed in playing sepak takraw, especially in saving attacks from opponents. Without a good basic technique, a person's thigh will not work properly and it will be difficult to counter an opponent's attack because thigh is the basic technique in sepak takraw. For this reason, the Padang Panjang City PSTI sepak takraw athletes need to do more thigh training, such as ball control exercises per individual, so that the basic techniques for gripping the Padang Panjang City PSTI sepak takraw athletes can become better.

The exercises that must be done to improve basic sepak takraw techniques are such as thighs. According to Zalpendi et al (2009), thigh training is carried out in the following way: (1) Self-training: This is done by the player standing holding the ball and throwing it, then the ball is taken using the thigh. (2) Pair training: This is done by the players standing facing each other, then the first player bounces the ball and the second player takes it with his thigh, this is done alternately.

Playing Head/Heading

From the results of the analysis of head test data on PSTI sepak takraw athletes in Padang Panjang City using assessment norms in the categories of very good, good, fair, poor and very poor. The average ability of PSTI sepak takraw athletes in Padang Panjang City is in the poor category, namely 7 people (70%). Heading or playing head can be done by standing in place by jumping. Heading can be used to hold the ball, pass to friends and attack opponents.

This would be better if the PSTI Padang Panjang City sepak takraw athlete's heading was improved because heading is very much needed in playing sepak takraw, especially in saving attacks from opponents. Without good basic techniques, a person's heading will not work correctly and it will be difficult to counter attacks from the opponent because heading is the basic technique in sepak takraw. For this reason, Padang Panjang City PSTI sepak takraw athletes need to do more heading training such as individual ball control exercises so that the basic heading technique of Padang Panjang City PSTI sepak takraw athletes can be better. Zalfendi, et al (2017) stated that heading is used to provide bait to friends so they can smash to attack the opponent.

According to Zalpendi et al (2009), the form of head training is carried out in the following way: (1) Self-training: This is done by each player holding the ball and throwing it up and then touching it with

the head. The ball must not be caught and is done continuously until the ball actually falls to the ground. (2) Pair training: Done with the players facing each other, the first player throws the ball and the second player heads the ball with his head, then catches it and turns to throw it at the first player. This exercise is carried out continuously until a certain time limit. (3) Group training: This is done by players standing in a group making a circle, the ball is thrown and headed and passed to the next player. This exercise is carried out continuously until the ball falls to the ground, and the player who drops the ball to the ground is punished according to the agreement.

Conclusion

Based on the results of research and discussion, researchers can draw the following conclusions: The level of basic soccer technique ability of PSTI sepak takraw athletes in Padang Panjang City is in the "Very Good" category. The basic technical level of sepak kura athletes sepak takraw PSTI Kota Padang Panjang is in the "Very Good" category. The level of basic soccer technique ability of PSTI sepak takraw athletes in Padang Panjang City is in the "Very Good" category. The level of basic technical ability of the sepak takraw athletes of PSTI Padang Panjang City is in the "Less" category. After averaging the basic techniques of sepak sila sepak takraw, 188.4 results were obtained which were included in the "Very Good" category, because they were at intervals of more than 172.

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