

West Javanese Judo Athletes' Physical Conditions

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Abstract: The National Sports Week is the most prestigious Multi Event at the national level in Indonesia, in PON 2016 Judo West Java team managed to become the overall champion by collecting 12 gold medals. This research is based on the effort in creating a good athlete and what needs to be prepared for each stage. In fact, for the achievement targets that must be achieved by athletes at each stage until now there is still no data that can be used as a reference or benchmark target. So the data to be used as a reference to find out what needs to be met by athletes at Pelatda level is needed. The problem that the authors propose in this thesis is how to profile the physical condition of athletes Pelatda PON Judo West Java in 2016 and the dominant physical components required by judo athletes. The method used in this study was descriptive method. The purpose of this study is to provide an overview of the physical condition of West Javanese Judo athletes in Pelatda PON 2016. The result of the analysis obtained from the athletes physical condition showed that the average physical condition for male athletes is 55% and that for female athletes is 57%. Of the 16 types of physical test conditions, the core stability test is the most successful test result. While half squats are the weakest type of test. Of all the tests that have been implemented, it can be concluded that athlete's judo of West Java in PON 2016 has a good core stability but has weakness in the leg strength.

1 INTRODUCTION

Judo achievement in West Java PON 2016 get satisfactory results with 12 gold medal collection. Based on the results of interviews on Sunday (11/16/2014) at the Judo dojo of West Java, Judo Jabar Coach, Maulana said: "To maintain the achievement in PON 2016 we put more emphasis on physical strength for athletes because the key to the success of Judo West Java team is the coach team always pays attention to the physical aspects of the athletes, in addition I always see the video on the youtube world championships and if there is a new movement I apply it in judo team of West Java.

The quality of a good athlete is the level of physical condition or high levels of physical fitness is also high, with good quality conditions then someone will be able to perform tasks or activities well without experiencing significant fatigue. Harsono (1988) and Hastuti (2008) said that if one have good physical conditions, then:

- There will be an increase in the ability of the circulatory system and heart work.

- There will be an increase in strength, flexibility, stamina, speed, and other components of physical condition.
- There will be a better motion economy during practice.
- There will be a rapid response from the organism of our body if at any time such response is required.

Parham (1993), Côté, J., (1999) and Bloom et al. (2003) said that "The physical condition of the athlete plays a very important role in doing the program that will be provided by the coach". A good athlete's physical preparation will facilitate the trainer in implementing the program. Good physical condition must be obtained by doing physical activity or exercise regularly and continuously. Talking about the physical condition will certainly discuss about strength, endurance, speed and so on. To know the physical condition or physical fitness should be done through the tests and measurements, because tests and measurements can identify the shortcomings or advances in physical conditions. In a maximum achievement at least. Cassidy et al

(2008), Harsono (1988, p.100) states that, to improve skills and achievements to the fullest possible potential, there are four aspects of the exercise that careful attention must be paid to by athletes: physical exercises, technical exercises, tactical exercises, and mental exercises. Concerning the Achievement Harsono (1988, p.100) explains that:

- Exercise techniques are exercises to enhance the skills of movement techniques such as jumping.
- Tactical exercises are exercises to develop of commentary power on the athlete.
- Physical exercise is an exercise to prepare physically for the game. What follows are the physical components: Strength, Muscular Endurance, Explosive (Power), Speed, Flexibility, and Endurance.
- Mental exercise is an exercise that emphasizes the development of athlete's maturity and emotional development such as spirit of compete, sportsmanship, confidence, and others.

Therefore, the author is interested in researching the athletes' physical condition for physical condition is one of the key factors in the achievement development. In which the most important aspects for Judo athletes are: Strength (Strength), Muscular Endurance, Power Explosion (agility), speed (speed), Flexibility, and Endurance (cardio vascular).

Based on the aforementioned concerns, the problems of the research can be formulated in the following statement. To specify the problems, they are formulated as follows:

- What are the profile of West Javanese Judo athletes' physical conditions in 2016?
- What are the dominant physical conditions of the West Javanese Judo athletes?

2 METHODS

The method in this research is descriptive method. Which can be interpreted as a problem-solving procedure that is investigated by describing the subject's circumstances. The objects in the study can be people, institutions, communities and others who are now based on facts that appear or as it is.

3 RESULTS AND DISCUSSION

3.1 The Characteristics of Judo Athletes' Physical Condition

Every branch of sports requires good athletes' physical conditions. It is intended to show good performance and can achieve good achievement. Characteristics of the sport of judo is not much different from the sport of wrestling, because in the wrestling technique there is a kick, pull, lock, push. Basic physical capabilities include elements of strength, flexibility, speed, power, agility, precision, coordination, endurance, and balance. But not all of the elements of the absolute physical conditions are required by every sport. According to Bompa (1999) "Sport Specific strength development required for sport wrestling (Gulat and Judo): Power endurance, Reactive power, Muscle endurance medium."

Judo sport is seen from its characteristic as an active sport that requires the athlete to have a really excellent physical condition in every game so that in each game the athlete can move effectively without experiencing significant fatigue. Physical condition consists of several components such as strength, speed, durability, endurance, and good motion coordination. Furthermore, this condition is developed in accordance with the characteristics of the game of judo, such as leg and arm power to do throws quickly. Throwing will not produce any points without good body coordination, in maximal results the maxillary action is not only influenced by technical factors but is also determined by physical condition factors such as limb, abdominal, waist and arm power that support the dings to be performed at maximum speed .

In the judo sport, described in, almansba et al (2010), sterkowicz et al (2013) "limb, abdominal, waist and arm power are needed to support a judo player in order to play explosively." Because to be able to display an explosive movement required elements of muscle strength and speed are nominated in an integrated movement. As Harsono (1988, pp. 200) notes that "two important elements in power are (a) muscle strength and (b) muscle velocity in exerting maximum power to overcome resistance." So the usual exercise developed to gain power is by connecting muscle power together with speed training.

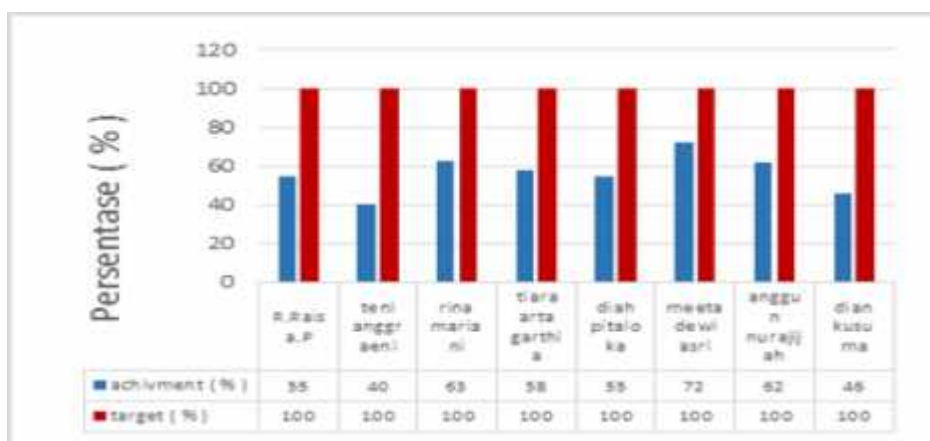


Figure 1: The overall result of the judo athlete physical conditions.

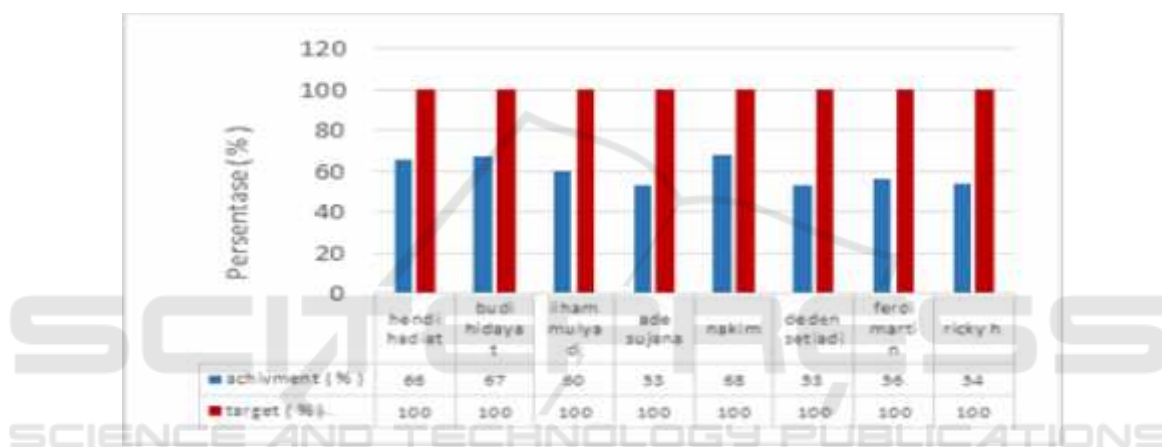


Figure 2: The second physical condition test.

When an athlete is physically ready, it will be an advantage for the athlete himself. There are a lot of advantages from having good physical conditions. According to Harsono (1988, p.153; Kraemer and Fleck 2005) in the book of coaching explained that if one has good physical conditions, then:

- There will be an increase in the ability of the circulatory system and heart work.
- There will be an increase in strength, flexibility, stamina, speed, and other components of physical condition.
- There will be a better motion economy during practice.
- There will be a better and faster recovery from the body after the exercise.
- There will be a rapid response from the organism of our body if at any time such response is required.

In addition to physical factors and techniques, other factors that are not less important is also the tactical and mental factors that must also be owned

by the athletes who have the goals of becoming the best Judo athletes in Indonesia or even in the world.

4 CONCLUSIONS

Based on the data analysis and computation, it can be concluded that the physical condition of West Javanese Judo athletes are:

- The physical condition is in moderate category
- The dominant physical condition components that the judo athlete needs are arms and shoulder power, flexibility, endurance, reaction and leg strength.

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