

# Weight Loss in Pencak Silat Fighting Category

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**Keywords:** Weight Loss, Pencak Silat, Fighting Category.

**Abstract:** The purpose of this study was to obtain the weight loss after martial art fighting championship by using quasi experimental methods with group pretest-posttest design in a final stage of Pencak Silat Student Championship. The method used for this research is experimental method, and experimental research design is One Group "Pre Test and Post Test Design". Data collected before and after the fighting activity, then processed and analyzed using SPSS. The result of t-test showed that; (1) there is significant weight loss after Fighting Activity, (2) there is different weight loss between Male and Female student, and (3) there is no different weight loss between Junior High and Senior High Student.

## 1 INTRODUCTION

Sport training is defined as a special and organizational process of comprehensive and balanced physical education that aims at reaching the highest possible level in the type of chosen physical activity; it also contributes a significant portion in preparing the individual to work, produce and defend the individual's homeland (Abdelrazeq, 2015).

Pencak silat is one of the indigenous cultures of the Indonesian, which has been accepted by the international community. Pencak Silat is now developed into a modern sport that is accepted by the wider community and will provide a 'logical' consequence that martial arts will be studied and occupied by the people who study it. The development of Pencak Silat martial arts which is the result of Indonesian culture continues to be accepted by the world community, as part of sports for sports, sports education and sports achievement (Notosoejitno, 1999).

Guidance of achievement should be started early in order to bring athletes who excel, therefore can be nurtured with professionals. One of the efforts to develop and hone the ability of an athlete is to follow the championships between students, adolescents and adults and other championships.

In its development, pencak silat now has a lot of devotees from all circles of society, ranging from children to people who have old age (elderly). Pencak silat also has developed rapidly in the urban areas and remote areas. Various kinds of martial arts colleges have emerged in Indonesia. Along with the

development of the era, martial arts has been calculated as a sport of achievement and has been included in the matches at the level of students, students and general and international level (Aziz, 2002).

In the highest multi-event in Indonesia, the National Sports Week (PON), Pencak Silat Sports began officially competed on PON VII in Jakarta by displaying the number of matches, the term of the previous match category known as martial arts term, then developed into wiralaga, and now better known with the title category. Pencak Silat basic motion is a planned, directed, coordinated and controlled movement that has four aspects as one unity, namely the mental mental aspects, martial arts aspects, sports aspects and aspects of art and culture. Thus the four aspects are a unity and cannot be separated.

In sports match, pencak silat consists of two categories that are competed, namely the category of fighter (fighter) and art category. The comparative category consists of a weighted matching number, and the art category consists of several numbers: single, double, team. In this article, researchers focused on the category of match.

Competition category is a category featuring two people from different camps. Both facing each other using the elements of defense and attack, which is to deflect / deny / hit / attack on the target and dropped the opponent, the use of tactics and techniques compete, endurance of stamina and morale, using rules and step patterns that utilize wealth of jurus to get the most value. The meaning of the rules is that in achieving technical achievements a fighter must develop a pattern of matches starting from the

attitude of the tide, the pattern of steps and measure the distance to the opponent and coordination in the conduct of defense and return to the attitude of the tide. To foster rules of competition there are guidelines to note:

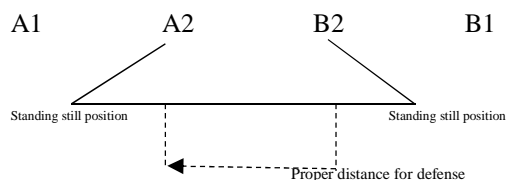


Figure 1: Competition rules. Source: Dr. Johansyah Lubis, M.Pd dan Hendro Wardoyo, M.Pd.

Anthropometry is expressed as a study concerning the measurement of human body dimensions and application of design, concerning the physical geometry, mass, strength and characteristics of the human body in the form and size. Each individual athlete basically has a different shape, height and weight .

Anthropometric measurements are a series of systematized measures that quantitatively express the dimensions of the human body and skeleton (Reilly, 2000). Anthropometric measurements include body weight, height, skinfolds measurement, circumferences, and various body diameters. The use of these measurements vary, but either individually or combined they allow for reasonable predictions of body composition in non-obese subjects. For example, weight provides a simple measurement of body mass and thus total energy content. Skinfolds measurements reflect the relative amount of fat for a given body site and may be used to describe regional adiposity. Finally, weight combined with skinfolds measurement and body diameters can accurately estimate the amount of fat-free mass and fat mass.

In Pencak silat which is a body contact sport in the game, per class is determined using weight. Weight is very influential in the game. An athlete who will compete must adjust his weight to enter the class to be followed (Rachmawati,2014). Based on weight, mature pencak silat matches can be classified into 7 females and 11 male's class. In MUNAS IPSI XII 2007 it is explained that for the women's match consist of: (a) Class A, body weight 45 kg s / d 50 kg, (b) Class B with weight above 50 kg to 55 kg, (c) Class C, with the provision of weight above 55 kg s / d 60 kg, (d) Class D, with the provisions of body weight above 60 kg s / d 65 kg, (e) Class E, with the provision of body weight 65 kg

s / d 70 kg, (f) class F with weight of 70kg to 75 kg, (g) Free class with weight above 75kg to 90kg. In a special free class, it is competed in a single event match. The class classification for men is the same as the class women class from grade A to class F, hereinafter described as follows: (a) Class G with the provisions of body weight above 75kg to 80kg, (b) Class H, (c) Class I with classes above 85kg up to 90kg, (d) Class J, with classes above 95kg up to 110kg (specifically single event match).

Height and Weight can significantly influence success in sports depending on how the design of the sport is linked to factors that are height and weight biased due to physics and biology. The balance of the intricate array of links will determine the degree to which height and weight plays a role in success (Calugi, 2017).

Based on the above statements then, this article intends to know the amount of weight loss on *Pencak Silat* athletes in the fighting category, so that it can control the weight in each class. The importance of weight measurement in martial arts athletes is to classify weight classes in the category of fighting. Therefore, this study is intended to answer how much weight loss after competing in martial arts athletes in the category of fighting.

## 2 METHODS

### 2.1 Participant

In this research technique used in sampling is total sampling that is sample determination technique with certain consideration. Of the population of 72 people, the sample used in this study amounted to 72 people.

### 2.2 Procedures

The method used for this research is the experimental method, and the experimental research design is One Group 'Pre Test and Post Test Design', which is pre-test before treatment and post-test after treatment. According to Sugiyono, experimental research method is a research method used to find the effect of certain treatment against others in controlled conditions. Thus the treatment results can be known more accurately, because it can compare with the situation before being treated.

### 2.3 Instruments

The instrument used in this study was taken by means of the testers, performing weight tests using weight scales (Sudjiono, 2015; Sugiyono, 2014). Data processing begins with analyzing data. The data analyzed are the samples that have followed the initial test and the final test. To process the results obtained from the sample following the initial test and the final test, this study uses T Test statistic.

$$t = \frac{M_D}{SE_{MD}}$$

## 3 RESULTS AND DISCUSSION

The data descriptions in this study includes the highest values, mean (mean), median (median) and standard deviation (s), including the following data:

Table 1: Research Data on Weight Loss of Pencak Silat Athletes before Competing in the Fighting Category.

Variables	Results
The highest score	73.20
The Lowest Value	34.80
Mean	52,60
Median	51,90
Deviation Standard	1,0

### 3.1 Weight of Pencak Silat Athletes before Competing in Fighting Category

Table 1. Shows weight data on athletes of Pencak Silat before competing in fighting category. These results are the result of data processing that will be used as comparison with the research data of Pencak Silat athletes' weight after competing in the category of Fighting. Here the data table of Pencak Silat athletes' weight after fighting in the category of fighting:

Table 2: Weight Loss Research Data of Pencak Silat Athletes after Competing in Fighting category.

Variables	Results
The highest score	72,70
The lowest Value	34,40
Mean	52,17
Median	51,50
Deviation Standard	1,0

### 3.2 Weight of Pencak Silat Athletes after competing in fighting category

Tables 1 and 2, it can be said that there has been a weight loss in athletes Pencak Silat after competing in the category of fighting. The results can be seen in the following table:

### 3.3 Result of Weight Loss Research Data of Pencak Silat Athletes after Competing in Fighting Category

Table 3: Results of Weight Loss on Pencak Silat Athletes After Competition in the Fighting category.

Variables	Result
The highest score	0.70
Lowest Score	0.30
Mean	0.4319
Median	0.4000
Deviation Standard	0.08191

Table 3. Showing weight loss results in the category of fighting, showing the highest value 0.70 and the lowest value 0.30. Mean of 0.4319. Median of 0.4000 and standard deviation (SD) of 0.08192. To facilitate the interpretation, it can be seen in the following histogram images:

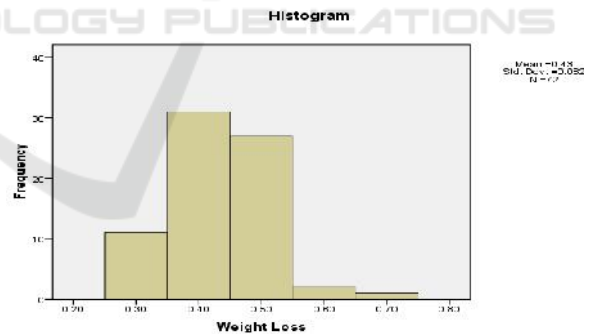


Figure 2: Histogram Chart of Weight Loss.

Table 4: Frequency Table of Weight Loss of Pencak Silat Athletes After Competing in Fighting category.

Interval Class of Weight Loss	Frequency	Percent	Valid Percent	Cumulative Percent
0.3 kg	11	15.3	15.3	15.3
0.4 kg	31	43.1	43.1	58.3
0.5 kg	27	37.5	37.5	95.8
0.6 kg	2	2.8	2.8	98.6
0.7 kg	1	1.4	1.4	100.0
Total	72	100%	100%	100.0

### 3.4 Frequency of Weight Loss of Pencak Silat Athlete after Competing on Fighting Category

Table 4 and Figure 1, it can be concluded that at the Pencak Silat athletes, fighting category, the largest frequency data is in the interval class 0.4 kg with the number of frequencies 31 people and the percentage value of 43.1%, and the smallest data frequency in the interval class 0.7 kg with the number of frequencies 1 people and percentage value of 1.4%.

Result of Research Analysis. Presented about the mean value ( $\bar{x}$ ) of the results obtained at the initial test obtained an average of 52.60 and in the final test of 52.17. Based on the average data on the initial test and the final test showed a decrease in the results obtained.

## 4 CONCLUSIONS

The conclusion that can be taken from this research is that martial arts athletes who perform pencak silat movement in the category of fighting will lose weight. From the calculation results stated that there was a difference of weight data results before and after of the Pencak Silat athletes in the category of fighting with an average decrease of 0.4319. The implications of this study are to provide information on how much weight loss after performing Pencak Silat on fighting category, therefore for athletes who experience overweight, these athletes can increase the volume of exercise to lose weight, so that the weight in accordance with their class.

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