# Heading to provincial championship boxing 2020 east java: A study of physical condition in ontang-anting sasana boxing athletes

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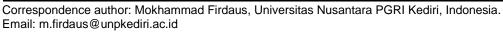
## Abstract

The research objective was to see the physical condition of boxing athletes in the ontang-anting gym prepared for the 2020 championship, as well as to prepare for PORPROV in 2022 because the majority of athletes are included in the Kediri City PUSLATKOT team. The research method used a quantitative descriptive approach. This type of research was non-experimental. The research population was all male and female boxing athletes, male and female, totaling 15 athletes. Sampling technique with saturated sampling. The data collection instruments were in the form of tests and measurements, while the test items included leg muscle strength, leg muscle power, arm power, arm muscle strength, leg muscle agility, cardiovascular endurance and back flexibility. Data analysis using a percentage. The results of this study show the results of the overall tests carried out, athletes who are in the very good category are 20.00%, athletes who are in the good category are 46.67%, athletes who are in the moderate category are 20. , 00%, while athletes who were in the poor category were 6.67% and those who were in the less category were 6.67%). Later this research can be used as a guideline for coaches and officials to improve the physical condition of their athletes and as a consideration for the socialization of how to measure the profile level of the physical condition of boxing athletes that is easy, accurate and precise so that the coach includes aspects of the physical condition profile as an important factor in dispatching athletes. to various boxing championships both at the regional, provincial and national levels.

**Keyword :** physical condition profile, gym ontang-anting, boxing

## INTRODUCTION

One of the absolute conditions of a country's development depends on human resources (HR) covering various fields (Siregar, 2017). Human resources are state assets in the framework of development in many areas needed by the state including sports (Suherman, 2012). Physical activity is one of the factors that has been in the spotlight both in Indonesia and in the world. The population of Indonesia at the age of 10 years is less physical activity, in women by 54.5% higher than men by 41.4% less

physical activity and in rural areas by 42.4% while in urban areas by 57.6% less physical activity, this can affect the health of the body that can lead to infected with non-communicable diseases (Riskesdas, 2018).

Sports performance development should be done continuously (Ridwan Sinurat & Muarif Arhas Putra, 2020). The establishment and coaching of achievements in sports is a small part of the government's efforts by realizing a training center. The athletes selected for coaching at the training center are taken from the regional level. With the Training Training Center, the training process becomes structured and monitored. In the Training Center will be given a training according to the disre suit of each sport, so that when one day wants to participate in sports events, then the selection of athletes will be more organized by using a training center.

Boxing is a martial arts sport that originated in ancient Egyptian civilization and may be the oldest martial arts sport in place (Said el-Aksher, 2018). This sport brings together two people of the same weight (El-Ashker & Nasr, 2012). In the course of this sport undergoes many changes, ranging from regulations and also the equipment used so as to reduce the risk of injury from athletes (Put, 2016). This sport has several basic physical components, including cardio endurance, strength, flexibility, muscle strength, muscle endurance, body composition. Skil in this sport is a combination of some of a person's physical condition, including speed, coordination, balance, strength and reaction time (Evrim Çakmakçı, 2019).

This sport of boxing is a sport that focuses on good physical condition and also good mental  (Ruddock et al., 2016). Good physical factors for athletes are what are needed to support their performance when competing and training  (Berrezokhy et al., 2020). In preparing athletes need to pay attention to the physical strength factor that athletes have (Ruddock et al., 2016). The ability of physical condition is very necessary for sports athletes, because by having a good physique then the athlete can show his best performance (Sugito et al., 2020). The improvement of athlete achievement must also be balanced with a programmable, planned

and continuous training pattern by adhering to the correct training principles (Rahman et al., 2016). Knowing the physical condition is one of the many ways that must be done in order to achieve good physical condition, know the potential and develop it to the maximum (Berrezokhy et al., 2020). In addition, this sport must also pay attention to biomechanical factors when training and in the application of existing techniques (Walilko et al., 2005). (Supriyoko & Mahardika, 2018) stated that, "The physical condition viewed in terms of faalnya is the ability to know a person can be known to what extent his ability as a supporter of sports activities. The physical ability of athletes must be known by the coaching team, this is related to the development of the athlete so that coaches can know how the condition of their athletes who aim to design an exercise program (Allsabah et al., 2019).

Research that emphasizes the measurement of the components of the physical condition of athletes is a good step for the development of boxing gyms to be even better in terms of coaching athletes to be even better. Furthermore, to further maximize the achievement of boxing gyms ontang-anting, it needs to be improved to pay attention to factors that affect the achievement of athletes, not only prioritize physical factors but also other factors. So far, research that examines the physical condition of boxing athletes is very minimal, compared to other sports. Every sport must be checked on the ability of athletes, such as basic abilities, physiological abilities, and psychological (Husein, M, Akbar, 2020). So that with this research can be a new trobosan about the sport of boxing by measuring its physical condition.

## METHOD

This research is a type of quantitative descriptive research, which describes a particular reality. By using the procedures, observations and documentation and using non-experimental designs. Sourced in (Maksum, 2012), descriptive research means research that is tried to describe certain indications, phenomena, circumstances or events. Conversely, quantitative research from (Suharsimi, 2013), matching its name is widely

required to use numbers starting from the collection of information, understanding of the information, and the appearance of the information. The population of this study amounted to 15 athletes, all of whom were used as illustrations by using total sampling.

To get the information needed, this research uses survey methods with a test and measurement approach (Albertus, Fenanlampir., 2015). Measurement test items are adjusted to the components of physical condition in the sport of boxing. Various tests that will be done include: Strength of leg muscles with Leg Dynamometer tool, Power limbs with jump-MD tools, Arm Muscle Power with Medicine Ball Put tool, Arm muscle strength with Push Up method, Agility with Shuttle Run, Endurance of heart and lung using Multistage Fitness Test (MFT) test, Flexibility with Flexiometer tool.

The data analysis used in this study used assessments on the instructional tests compiled by the research team adopted from (Albertus, Fenanlampir., 2015). Each test result is converted in the form of a number and is further subtracted from the overall test score. For the presentation of test results using reference categorization of norms 5 categories (Azwar, 2005). Data analysis techniques to find out the percentage of physical condition of boxing athletes at the ontang anting gym club - men's and women's earrings numbering 15 athletes, guided by the formula:

$$P = \left(\frac{f}{N}\right) + 100\ \%$$

Information:
P = percentage sought
F = frequency
N = number of respondents

The results of the data obtained by each test item are rough data from the results of each test obtained. The results of the rough data are then processed again using the value of t-score with the formula t-score as follows:

$$T = 10\left(\frac{M-X}{SD}\right) + 50 \text{ (Intervantion Data)}$$

$$T = 10\left(\frac{M-X}{SD}\right) + 50 \text{ (Regular Data)}$$

Information:
T = t score
M = rough average value
X = rough data value
SD = standard deviation of rough data

Data processed through t-score, then the data is interpreted, namely by categorizing the data. Categorization is grouped into 5 categories (Azwar, 2012) namely: very good, good, enough, less, less. Categorization using reference 5 normal limits (Sudjiono, 2011), is as follows:

**Table 1.** Category Raw Score

| Number | Range of Norms | Category |
|--------|----------------|----------|
| 1 | X ≥ M + 1,5 SD | Very Good |
| 2 | M + 0,5 SD ≤ X < M + 1,5 SD | Good |
| 3 | M − 0,5 SD ≤ X < M + 0,5 SD | Average |
| 4 | M − 1,5 SD ≤ X < M − 0,5 SD | Less |
| 5 | X < M − 1,5 SD | Less Once |

## RESULT

### 1. Overall Physical Condition

Based on data obtained from the results of physical condition tests on kediri ontang-anting boxing athletes numbered 15 athletes, with the collection of test data. To find out the results of the data in this study, several tests were conducted, namely: togok flexibility, endurance, limb muscle strength, leg muscle power, arm muscle power, arm muscle strength and agility. The following presents the results of the physical condition of the overall processing of data from each component of physical condition based on the overall norm:

**Table 2.** Data Results of Physical Condition Of Athletes Of Ontang-Anting Boxing Gym

| Number | Norm | Result | Percentage |
|--------|------|--------|------------|
| 1 | Very Good | 3 | 20,00 |
| 2 | Good | 7 | 46,67 |
| 3 | Average | 3 | 20,00 |
| 4 | Less | 1 | 6,67 |
| 5 | Less Once | 1 | 6,67 |

Based on table 2 above there is a conclusion of the level of physical condition or profile of physical condition owned by boxing athletes in sequence from the highest categories are, which are included in good condition once by 20%, in the good category by 46.67%, the category is enough by 26.67%, the category is less by 6.67% and in the category is not at all.

## 2. Description of Each Test

The analysis conducted to the athletes of the ontang-anting boxing gym, spelled out the analysis of the description as follows:

### a. Flexibility

The results of data collection of the physical condition of boxing gym athletes ontang-anting for flexibility are:

**Table 3.** Flexibility Test Results Data

| Norm | Achievement (Conversion) | Result | Percentage |
|---|---|---|---|
| Very Good | 20.5 | 1 | 6,67 |
| Good | 19.0 | 5 | 33,33 |
| Average | 18.0 | 7 | 46,67 |
| Less | 15.0 | 2 | 13,33 |
| Less Once | 13.0 | 0 | 0 |
| **Total** | | 15 | 100 |

Based on table 2 above the conclusion is based on the highest to low value as follows. Assessment of the test measurement of flexibility of 15 players, 1 athlete in the category of good at all with a percentage of 6.67%, 5 athletes in the good category with a percentage of 33.33%, 7 athletes in the category enough with a percentage of 46.67%, 2 athletes in the less category with a percentage of 13.33%, while for athletes who are in the category of less at all does not exist.

### b. Agility

Analysts on the collection of data on the physical condition of boxing gym athletes for agility are:

**Table 4.** Agility Test Results Data

| Norm | Conversion | Result | Percentage |
|------|-----------|--------|------------|
| Very Good | < 12.42 | 6 | 40,00 |
| Good | 12.43-14.09 | 4 | 26,67 |
| Average | 14.10-15.74 | 3 | 20.00 |
| Less | 15.75-17.39 | 1 | 6,67 |
| Less Once | < 17.40 | 1 | 6,67 |
| Total | | 15 | 100 |

Based on table 4 above the conclusion is based on the highest to low dri assessment as follows. Assessment of agility measurement tests of 15 athletes, 6 athletes in the good category at all with a percentage of 40.00%, 4 athletes in the good category with a percentage of 26.67%, 3 athletes in the category is enough with a percentage of 20.00%, 1 athlete in the category is less with a percentage of 6.67% while 1 athlete in the category is less once with a percentage of 6.67%.

**c. Aerobic Capacity (VO$_2$Max)**

Analysts on the collection of data on the physical condition of boxing gym athletes for endurance (VO$_2$max) are:

**Tabel 5.** Hasil Tes Daya Tahan

| Norm | Conversion | Result | Percentage |
|------|-----------|--------|------------|
| Very Good | > 51,6 | - | - |
| Good | 42,6-51,5 | 4 | 26,67 |
| Average | 33,8-42,5 | 5 | 33,33 |
| Less | 25,0-33,7 | 4 | 26,67 |
| Less Once | < 25 | 2 | 13,33 |
| Total | | 15 | 100 |

Based on table 5 above the conclusion is based on the highest to low dri assessment as follows. Assessment of endurance measurement test (VO2Max) against 15 athletes, 4 athletes in good category with a percentage of 26.67%, 5 athletes in the category enough with a percentage of 33.33%, 4 athletes in

the less category with a percentage of 26.67%, 2 athletes in the category less once with a percentage of 13.33%.

## d. Limb Muscle Strength

Analysis of data collection of physical condition of boxing gym athletes ontang-anting for leg muscle strength, namely:

**Table 6.** Limb Strength Test Results

| Norm | Conversion | Result | Percentage |
|------|-----------|--------|-----------|
| Very Good | > 219,5 | 1 | 6,67 |
| Good | 171,5-219,5 | 3 | 20,00 |
| Average | 127,5-171,5 | 8 | 53,33 |
| Less | 81,5-127,5 | 2 | 13,33 |
| Less Once | < 81,5 | 1 | 6,67 |
| Total | | 15 | 100 |

Based on table 6 above the conclusion is based on assessments from highest to low as follows. Measurement of leg muscle strength of 15 athletes, 1 athlete in the good category at 6.67%, 3 athletes in the good category with a percentage of 20.00%, 8 athletes in the category is enough with a percentage of 53.33%, 2 athletes in the category less with a percentage of 13.33% while 1 athlete in the curative category once with a percentage of 6.67%.

## e. Arm Muscle Strength

Analysis of data collection of physical condition of boxing gym athletes ontang-anting for togok flexibility, namely:

**Table 7.** Arm Muscle Strength Test Results

| Norm | Conversion | Result | Percentage |
|------|-----------|--------|-----------|
| Very Good | > 70 | - | - |
| Good | 54-69 | 8 | 53,33 |
| Average | 35-53 | 7 | 46,67 |
| Less | 22-34 | - | - |
| Less Once | < 21 | - | - |
| Total | | 15 | 100 |

Based on table 7 above the conclusion is based on an assessment from the highest to the lowest as follows. Measurement of arm muscle strength of 15 athletes, 8 athletes in the good category with a percentage of 53.33%, and 7atlets in the category is enough with a percentage of 46.67%.

### f. Limb Muscle Power

Analysis of data collection of physical condition of boxing gym athletes ontang-anting for togok flexibility, namely:

Table 8. Limb Muscle Power Test Results

| Norm | Conversion | Result | Percentage |
|---|---|---|---|
| Very Good | > 43,18 | 5 | 33,33 |
| Good | 38,1-43,17 | 4 | 26,67 |
| Average | 33,02-38,0 | 3 | 20,00 |
| Less | 20,32-33,01 | 3 | 20,00 |
| Less Once | 7,62-20,31 | - | - |
| Total | | 15 | 100 |

Based on table 8 above the conclusion is based on an assessment from the highest to the lowest as follows. Measurement of limb muscle power against 15 athletes, 5 athletes in the good category once with a percentage of 33.33%, 4 athletes in the good category with a percentage of 26.67%, 3 athletes in the category enough with a percentage of 20.00%, and 3 athletes in the category less with a percentage of 20.00%.

### g. Arm Muscle Power

Analysis of data collection of physical condition of boxing gym athletes ontang-anting for togok flexibility, namely:

**Table 9.** Arm Muscle Power Test Results

| Norm | Conversion | Result | Percentage |
|------|-----------|--------|-----------|
| Very Good | > 5,90 | - | - |
| Good | 5,11-5,51 | 6 | 40,00 |
| Average | 3,14-4,72 | 7 | 46,67 |
| Less | 1,96-2,75 | 2 | 13,33 |
| Less Once | 0-1,57 | - | - |
| Total | | 15 | 100 |

Based on the 9 tables above the conclusions are based on assessments from highest to low as follows. Measurement of arm muscle power against 15 athletes, 6 athletes in the good category with a percentage of 40.00%, 7 athletes in the category is enough with a percentage of 46.67%, and 2 athletes in the category less with a percentage of 13.33%.

## DISCUSSION

In the study, the results obtained from measurements and tests of the physical condition of athletes who are members of the boxing ontang-anting with norms from the highest to the lowest value, namely athletes in good condition at all by 20%, in the good category of 46.67%, the category is enough by 26.67%, the category is less by 6.67% and the category is not at all, so that overall athletes in the boxing field in the earrings in good condition with the largest percentage of 46.7 %.

Components of physical condition or biomotor play an important role in achievement, biomotor ability is part of physical condition and physical condition can be cited as the biggest factor in determining the success of the achievement of boxing athletes (Latuheru, 2018). With this physical condition test, it is expected that athletes and coaches will be able to make the athletes even better. Judging from the results obtained, it is not surprising that so far the gym has always obtained medals in every event held in east Java in particular, moreover now it is now a supplier of athletes at the city training center prepared by KONI Kota Kediri to prepare for the Provincial Sports Week (PORPROV) which will take place in 2021.

The components of the physical condition will be more visible maximally and satisfactorily if in reality the training is carried out in accordance with the needs of each athlete (Firdaus, Mokhammad. Zawawi ,Anis. Dwijayanti, 2020).

Athletes with good physical condition will be faster in the recovery process during training and during the match (Ayubi, 2017) so that it will make athletes move and play effectively and efficiently to perform the right movement techniques (Adziman et al., 2017). In addition, there are factors that determine a person's physical condition, namely: (1) Exercise factors, (2) Exercise load principle factors, (3) Rest factors, (4) Healthy living habit factors (5) Environmental factors, (6) dietary factors (Pujianto, 2015).

Physical condition is a state of the body that can change depending on the handling of body components. This means that physical condition can be absolutely trained and improved according to each individual's portion with structured, regular, measurable and progressive exercises. So that the improvements in each component will complement each other. As in the following explanation periodization can be defined as a training plan, where an athlete's peak performance results from training potential biomotor components and managing fatigue and accommodation (Turner, 2011). That means periodization can be defined as a training plan, in which an athlete's peak performance results from training potential biomotoric components and fatigue management.

## CONCLUSION

From the results of tests and measurements carried out, it is known that the condition of athletes who are members of the boxing gym ontang-anting shows the numbers are in the good category. This can be seen from the results of each test item and measurements that have been implemented. Of these test items, the average athlete gets good results. This is directly proportional to the results at each championship that is followed by athletes from the gym. After these results appear, the coach and also athletes must pay more attention to physical factors or physical

conditions that affect the ability of athletes in achieving achievements in the sport of boxing.

## THANK YOU

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