



## Profile of Extracurricular Physical Condition of Kickboxing and Muaythai Students of SMA Negeri 1 Ngawi

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### Abstrak

Kondisi fisik sangat diperlukan untuk bagi atlet kelas profesional maupun amatir, hal tersebut karena kondisi fisik akan mempengaruhi performa yang dimiliki oleh atlet. Penelitian ini bertujuan mengetahui profil kondisi fisik dari siswa peserta ekstrakurikuler kickboxing dan Muaythai Di SMAN 1 Ngawi. Jenis penelitian yang digunakan dalam penelitian ini adalah deskriptif kuantitatif. Penelitian ini menggunakan survei pengambilan data menggunakan tes pengukuran. Jumlah populasi dari penelitian yaitu 20 siswa dari 10 peserta ekstrakurikuler Kickboxing dan 10 peserta ekstrakurikuler Muaythai, dan total sampling digunakan dalam penelitian ini. Penelitian menggunakan instrument yang digunakan yaitu kekuatan otot perut menggunakan (Sit Up), kekuatan otot kaki menggunakan (Standing Board Jump), kekuatan otot lengan menggunakan (Push Up), kecepatan menggunakan (Sprint 30m), kelentukan menggunakan (Sit and Reach), power menggunakan (Vertical Jump), kelincahan menggunakan (Illionis Run Tes), dan daya tahan menggunakan (MFT). Analisis datanya menggunakan deskriptif presentase. Hasil penelitian menunjukkan profil tingkat kondisi fisik siswa peserta ekstrakurikuler Kickboxing SMAN 1 Ngawi pada kategori "baik" dengan total sebesar 70% sedangkan profil kondisi fisik siswa peserta ekstrakurikuler Muaythai SMAN 1 Ngawi pada kategori "baik" sebesar 80%. Profil kondisi fisik siswa peserta ekstrakurikuler Kickboxing SMAN 1 Ngawi dan Muaythai SMAN 1 Ngawi berada pada kategori "baik" 75%. Dari hasil tersebut dapat disimpulkan secara keseluruhan kondisi fisik pada cabor kickboxing dan muaythai masuk dalam kategori baik. Sehingga hal ini pelatih perlu meningkatkan kondifisi fisik atlet, agar mencapai hasil yang lebih optimal.

**Kata Kunci:** *Kondisi Fisik, Ekstrakurikuler, Kickboxing, Muaythai, Siswa.*

### Abstract

*Physical condition is very necessary for professional and amateur class athletes, this is because physical condition will affect the performance of athletes. This study aims to determine the profile of the physical condition of students participating in extracurricular kickboxing and Muaythai at SMAN 1 Ngawi. The type of research used in this study is quantitative descriptive. This study used a data collection survey using measurement tests. The population of the study was 20 students from 10 extracurricular kickboxing participants*

and 10 Muaythai extracurricular participants, and total sampling was used in this study. Research using the instruments used, namely abdominal muscle strength using (Sit Up), leg muscle strength using (Standing Board Jump), arm muscle strength using (Push Up), speed using (Sprint 30m), flex using (Sit and Reach), power using (Vertical Jump), agility using (Illinois Run Test), and endurance using (MFT). The data analysis uses descriptive percentages. The results showed the profile of the physical condition of students participating in the extracurricular kickboxing SMAN 1 Ngawi in the "good" category with a total of 70% while the profile of the physical condition of students participating in the Muaythai SMAN 1 Ngawi extracurricular activity in the "good" category was 80%. The profile of the physical condition of students participating in extracurricular kickboxing SMAN 1 Ngawi and Muaythai SMAN 1 Ngawi is in the "good" category of 75%. From these results, it can be concluded that the overall physical condition of kickboxing and muaythai is included in the good category. So that the coach needs to improve the physical condition of the athlete, in order to achieve more optimal results.

**Keywords:** Physical Condition, Extracurricular, Kickboxing, Muaythai, Students.

## Introduction

Sports education is a teaching process through physical activities designed for the physical, improving fitness, developing motor skills, knowledge and healthy living behaviors [1]. The learning environment is carefully regulated to promote the growth and development of all domains, namely psychomotor, cognitive, and affective domains in each student [2]. The role of teachers and coaches themselves is as a facilitator not to be a source of learning, but there are still many students who do not know what physical education actually means, students only know that physical education is only a sports and sports event, even though the purpose of physical education itself has many positive domains contained in it. Moreover, teachers are difficult to provide learning due to insufficient facilities and infrastructure.

Extracurricular is a place for students to develop the potential and talents of students [3]. Many students have non-academic talents, one of which is in kick boxing and muaythai. Based on the results of observations made by researchers, it was found that the

achievements achieved by students of SMA Negeri 1 Ngawi still need to get special guidance. Because from the data from 2021 to 2023, only 5 gold, 6 silver, and 8 bronze achievements were won in the Regional championship. This needs to make it a concern for coaches to be able to analyze why this happens. One such factor is the physical condition of the athletes. In achieving an achievement owned by students, it is necessary to have maximum practice. Physical condition is the main component needed by athletes.

Physical condition training is a detailed and long-term oriented system that grows gradually and leads to goals set by the individual or a summary prepared by the trainer [4]. For the achievement of sports achievements need several elements through regular and progressive training and will certainly affect the physical condition that plays an important role in the achievements of sportsmen or athletes [5]. According to [7] In addition to technical, tactical and mental preparation, physical fitness is an important part of various sports. In its preparation physical condition, notches, tactics and psychology are related factors [6].

Kickboxing is a modern martial art combined from traditional martial arts such as karate (Japan) Muaythai (Thailand), which focuses on striking or standing martial arts consisting of punches and kicks. [8] Kickboxing is a modern sporting form of dueling where fists and feet are the weapons. Kickboxing was created as a competitive sport in 1974 with the aim of allowing athletes from traditional martial arts such as karate, taekwondo and kung fu to compete in sporting events under common rules and regulations. What can be explained is that kickboxing is a combination of martial arts consisting of punch and kick techniques in 1974 so that adherents of racial martial arts such as karate, tea kwon do, and kung fu can compete in the same rules and regulations. Muaythai is a martial art originating from Southeast Asia, namely Thailand, this martial art includes striking or standing martial arts using techniques in the form of punches, punches, kicks, and knees. According to [9] Muaythai is called the art of eight limbs, because the technique is so loaded with punches, elbows, kicks, and knee strikes that it uses eight points.

### Method

This research method conducts surveys by taking data with the use of measurement tests, in this study included in the quantitative descriptive. The study population was 20 students, and total sampling was used in the study. Using instruments, namely the strength of the abdominal muscles of the memekai (Sit Up), the strength of the leg muscles using (Standieng board jump), the strength of the arm muscles using (Push Up), the speed of wearing (Sprint 30m), the flexibility of wearing (Sit and Reach), the

power of wearing (Vertical Jump), the agility of wearing (Illionis Run Test), and the endurance of wearing (MFT). Techniques used by means of physical condition test collection. Researchers took test data by providing physical tests conducted by samples in this study. The procedures for collecting data are: 1) researchers prepare equipment, 2) researchers come to the extracurricular training ground for Kickboxing SMA N 1 Ngawi and Muaythai SMA N 1 Ngawi, 3) researchers carry out a series of physical tests that have been determined for students participating in extracurricular Kickboxing and Muaythai SMA N 1 Ngawi, 4) researchers obtain test data results, 5) researchers process and process test data. The type of research used uses descriptive statistical methods in data analysis with the percentage of physical condition in students.

### Result and Discussion

#### Result

These research components include abdominal muscle strength measured using (Sit Up), leg strength test (Standing board jump), arm muscle strength (Push Up), speed measured test (Sprint 30m), flexibility measured using test (Sit and Reach), power measured using test (Vertical Jump), agility measured using test (Illinois Run Test), and measured endurance tests (MFTs). The sample was studied using total sampling, which is the maximum of all populations used as samples, consisting of 10 students participating in extracurricular Kickboxing SMAN 1 Ngawi and 10 students participating in extracurricular Muaythai SMAN 1 Ngawi. The results of the analysis are as follows.

Table 1. *Descriptive statistics of the physical condition of students participating in extracurricular kickboxing*

Descriptive statistics of the physical condition of students participating in extracurricular kickboxing in Ngawi district	
Meam	24,800
Median	25.00
Mode	25.00
Standart Deviaion	2,68.00
Minimum	20.00
Maxmimum	30.00
Count	10.00

The physical condition of students participating in extracurricular kick boxing SMAN 1 Ngawi is presented in Table 2.

Table 2. Norms of assessment of the physical condition of students participating in extracurricular kickboxing

No	Interval	Category	Frequency	Percentage
1	33 - 40	Excellent	0	0,0 %
2	25 - 32	Good	7	70,0 %
3	17 - 24	Enough	3	30,0 %
4	9 - 16	Less	0	0,0 %
5	1 - 8	Very Less	0	0,0 %
	Sum		10	100, %

Based on Table 2, the norms of assessing the physical condition of students participating in extracurricular kickboxing SMAN 1 Ngawi can be presented in Figure 1.

Figure 1. Diagram of the physical condition of students participating in extracurricular kickboxing

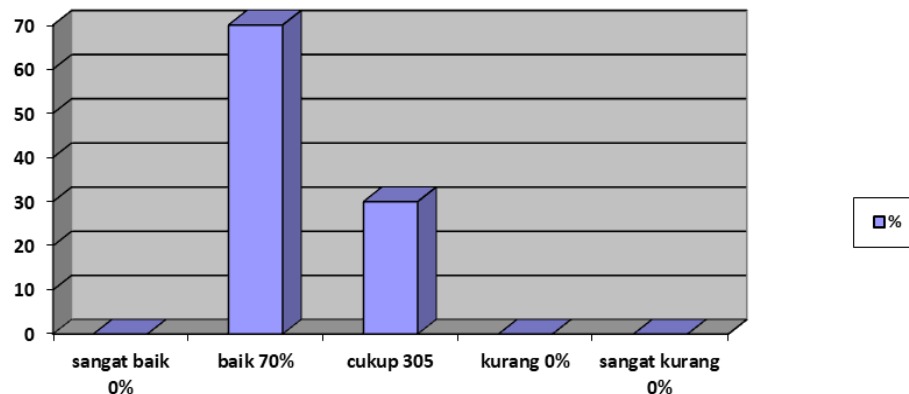


Table 2 and Figure 1 description of the physical condition of the students participating in extracurricular kickboxing SMAN 1 Ngawi are "very good" 0.0% (0

students), "good" 70.0% (7 students), "enough" 30.0% (3 students), "less" 0.0% (0 students), and "Very Less" 0.0% (0 students).

Table 3. Descriptive data From statistics of the physical condition of muaythai

**Statistics on the physical condition of students participating in extracurricular kickboxing at SMAN 1 Ngawi**

<b>Meam</b>	26,670
<b>Median</b>	27,00
<b>Mode</b>	28,00
<b>Standart Deviaion</b>	2,71,00
<b>Minimum</b>	20,00
<b>Maxmimum</b>	33,00
<b>Count</b>	10,00

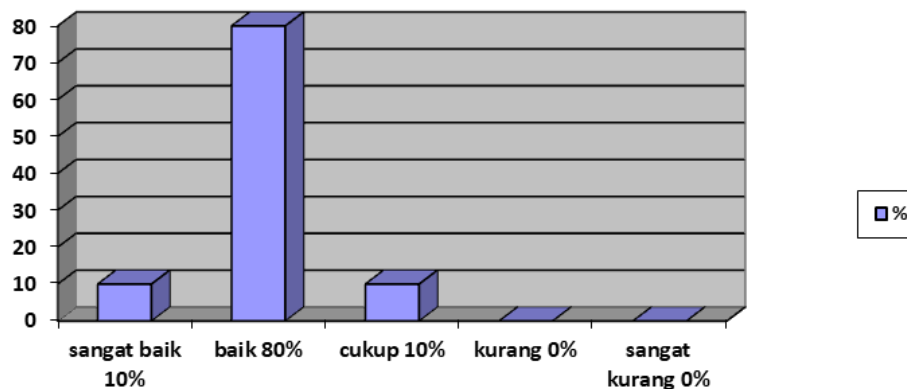
The frequency of the physical condition of students participating in extracurricular muaythai SMAN 1 Ngawi is presented in Table 4. As follows.

Table 4. Assessment of the physical condition of Muaythai

No	Interval	Category	Frequency	Percentage
1	33 - 40	Excellent	1	10.0 %
2	25 - 32	Good	8	80,0 %
3	17 - 24	Enough	1	10,0 %
4	9 - 16	Less	0	0,0 %
5	1 - 8	Very Less	0	0,0 %
	Sum		10	100, %

Based on Table 4, the assessment norms of the physical condition of students participating in extracurricular muaythai SMAN 1 Ngawi can be presented in Figure 2.

Figure 2. Diagram of the physical condition of muaythai students of SMA N 1 Ngawi



In figure 2 is the physical condition of the students participating in the muaythai extracurricular SMAN 1 ngawi in the categories "very good" 10.0% (1

student), "good" 80.0% (8 students), "enough" 10.0% (1 student), "less" 0.0% (0 students), and "veryless" 0.0% (0 students).

Table 5. Statistical description of the physical condition of kickboxing and muaythai athletes

<b>Descriptive statistics of extracurricular kickboxing and muaythai students of SMAN 1 Ngawi</b>	
<b>Meam</b>	25,73

<b>Median</b>	26.0
<b>Mode</b>	27.0
<b>Standart Deviaion</b>	2,83.0
<b>Minimum</b>	20.0
<b>Maxmimum</b>	33.0
<b>Count</b>	20.0

The frequency of the physical condition of students participating in extracurricular kickboxing and muaythai SMAN 1 Ngawi was presented at Tabel 6.

Table 6. *Assessment norms of the physical condition of kickboxing and muaythai*

No	Interval	Category	Frequency	Percentage
1	33 - 40	Excellent	1	5. %
2	25 - 32	Good	15	75.0 %
3	17 - 24	Enough	4	20.0 %
4	9 - 16	Less	0	0.0 %
5	1 - 8	Very Less	0	0.0 %
	Sum		20	100, %

Based on Table 6, the norms of the assessment of the physical condition of students participating in extracurricular kickboxing and muaythai SMA N 1 Ngawi can be presented in Figure 3.

Figure 3. *Diagram of the physical condition of muaythai and kickboxing*

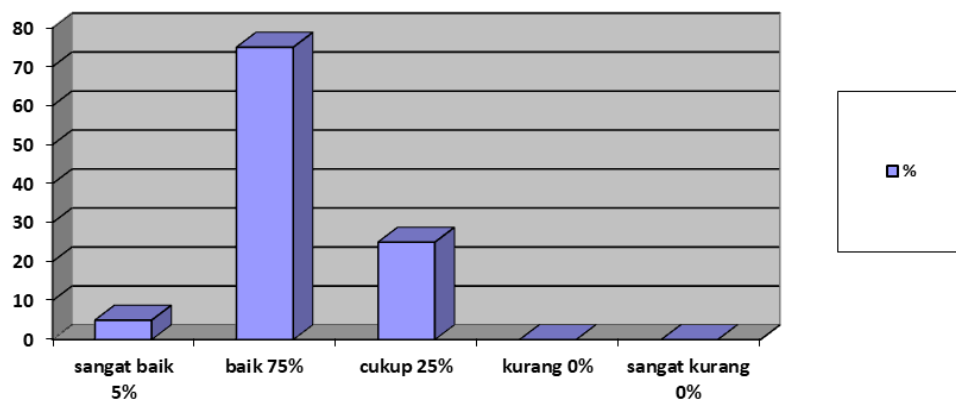


Figure 3 shows that the physical condition of students participating in extracurricular kickboxing and muaythai SMAN 1 ngawi what category categories are "very" 5% (1 students), "good," "75% (15 students), "enough," 20% (4 students), "less," 0% (0 students), and "very less" 0% (0 students).

**Discussion**

The presentation of the level of physical condition of students participating in extracurricular kickboxing and muaythai SMAN 1 Ngawi above that the physical condition that the category is very good to be maintained, the good category can be improved to very good, and in the sufficient category it should be increased to good. From that, kickboxing and muaythai coaches and extracurriculars of SMAN 1 Ngawi have a

profile of their level of physical condition and can also create training programs to improve or maintain physical condition.

Students participating in extracurricular kickboxing and muaythai at SMAN 1 Ngawi can be more enthusiastic in maintaining and improving their physical fitness so that they can practice and improve quality in each sport. This also plays an important role in overcoming it is a trainer who must understand very well about the needs of extracurricular participant students from their physical, technical and tactical, not forgetting also the psychological calm of all extracurricular participating students trained by the coach himself. In general, students participating in extracurricular kickboxing and muaythai at SMA N 1 Ngawi are in good physical condition.

Factors that affect the physical fitness of extracurricular students are the training program at the camp training ground then joining kickboxing and muaythai extracurriculars, as well as the demands on the physical fitness component that dominates the sport. Of course, each camp has a different training program, some are of good quality but some are still of poor quality, this will affect the results of the fitness test. Then in different sports, different physical fitness components show different results. For example, student extracurricular muaythai learners are different from kick boxing in the arm muscle strength component, because in muaythai arm muscle strength is very important for punches and elbows, while kickboxing relies more on punches [4]. Another difference in kickboxing flexibility dominates good results, because in kickboxing is more dominant with kicks up or towards the opponent's head. Kickboxing and muaythai athletes of SMA N 1 Ngawi have a vulnerable age of 14 to 17 years from that their physical condition

is still not what they say reaches the maximum peak, but for the peak achievement of maximum physical condition at the age of 20-30 years, [10]. Physical activity affects the results of physical condition tests, when researchers conduct research students participating in extracurricular kickboxing and muaythai are doing special exercises to cause fatigue so that when the research takes place the results are less than optimal.

The results obtained from the study of the physical condition of students participating in extracurricular kickboxing and muaythai SMA N 1 Ngawi in detail on strength, namely (abdominal muscles. Leg muscles, arm muscles), speed, flexibility, power, agility, endurance can be described below:

a. Abdominal muscle strength

Research shows that the muscles of the abdomen are in the middle of students participating in extracurricular kickboxing is in the sufficient category, and students participating in extracurricular muaythai show themselves to be in the same category, namely. Based on information from extracurricular students who practice at the camp still often do sit up exercises, the results are quite satisfactory. Abdominal strength is known to be very important for extracurricular students, where the abdominal muscles are called core muscles, because in martial arts that requires abdominal strength to withstand attacks or punches or kicks. Good abdominal muscle strength is achieved in the abdominal area Helps improve endurance and attacking ability of athletes.

b. Leg muscle strength

The results of the study showed that the muscle strength of the limbs of students participating in extracurricular kickboxing and muaythai SMAN 1 Ngawi was in the same category, which was

very good. Based on information obtained from athletes who participated in training at the camp, they still often do squats so that the results obtained are very loading. And leg muscle strength helps with good posture and kicks.

c. Arm muscle strength

Kick boxing and muaythai sports, leg muscle strength is needed to carry out attacks in the form of punches and elbows. Regarding muaythai, the results showed that the hand muscles of kickboxing athletes are included in the category of less good, then enough, then good and very good. Well, the majority are in the good category. While muaythai athletes are in the sufficient and good category, while the average results of the category are sufficient as described.

d. Flexibility

Based on the results of the study, it turns out that the flexibility of students participating in extracurricular kickboxing is in a good category, Ngawi district muaythai athletes are in the sufficient category. In kickboxing and muaythai, flexibility is important for an athlete. Good flexibility facilitates athlete training, so that movement is more flexible and optimal. This wide range of mobility is called refractive flexibility as well as movement according to [11]. Ngawi district kickboxing and muaythai athletes have good flexibility because they do stretching exercises earnestly and correctly so as to increase flexibility.

e. Power

The muscle used to exert maximum capacity vulnerable to a short period of time is called force [12]. Based on the results of the study, the strength of students participating in extracurricular kickboxing is in the sufficient category and students participating in extracurricular muaythai Ngawi district are in the good category. These results

are consistent with their sport, as muaythai athletes rely more on powerful punches and kicks to compete, while kickboxers do not.

f. Agility

Research shows that the agility level of kickboxers in Ngawi Regency is at an adequate level. Similarly, students participating in Muaythai extracurricular activities in the Ngawi region are included in the sufficient category. Based on the statement above, both sports have sufficient categories in fitness tests, agility is important in kickboxing and muay thai, fast attacking movements and side steps are needed in a match.

g. Durability

Long-term work or movement is sustainability [13]. In kickboxing and muaythai endurance is needed in matches because each match has 3 rounds that are 2 minutes long. Based on this, kickboxing and muaythai athletes must have the ability and body to move at a vulnerable time that certainly does not feel tired. The study showed that the endurance level of SMAN 1 Ngawi kickboxing athletes was in the good and sufficient category, while the muaythai athletes of the Ngawi region were in the sufficient category. In the camp they still train endurance, for example long-distance running, so that endurance is in the category of quite good.

## Conclusion

From the results of the study, it can be concluded that the physical condition of students participating in extracurricular kickboxing SMAN 1 Ngawi is in the category of "songat baik" 0.0% (0 students), 'good" 70.0% (7 students), "enough" 30.0% (3 students), "less" 0.0% (0 students), and "sanga less" 0.0% (0 students). Furthermore, the level of physical condition of the students participating in extracurricular muaythai



SMAN 1 ngawi categories "Very good" 10.0% (1 student), "good" 80.0% (8 students), "enough" 10.0% (1 student), "less" 0.0% (0 students), and "sngat less" 0.0% (0 students). And the level of physical condition of students participating in extracurricular kickboxing and muaythai SMAN 1 ngawi in the category of "very good" 5.0% (1 student), "good" 75.0% (15 students), "enough" 20.0% (4 students), "less" 0.0% (0 students), then "sngat less" 0% (0 students).

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