Implementation of Physical Fitness Test Measurements for Pencak Silat Sport Branch Using an Application

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Abstract

The study, titled "Implementation of Physical Fitness Test Measurement for Pencak Silat Sport Using an Application for Students at Palembang 03 Public Junior High School," aims to establish normative categories for assessing physical fitness test results in pencak silat using an application. The physical test components include strength, muscle power, flexibility, balance, endurance, speed, and agility tests. This research follows a quantitative approach with a descriptive research design. The participants consist of 30 pencak silat extracurricular students at Palembang 03 Public Junior High School, comprising 13 male students and 7 female students. Data were collected through various tests, utilizing instruments such as the bleep test for endurance, a 30-meter sprint for speed, the agility t-test for agility, 1-minute push-ups for arm strength, vertical jump for muscle explosive power, and the standing stroke test for balance. The research took place at S Palembang 03 Public Junior High School in collaboration with a member of Mgmp Pjok Palembang City. The findings indicate that the average physical condition of extracurricular pencak silat students at Palembang 03 Public Junior High School falls within the very good category (10.8%), good category (21.6%), fair category (41.6%), less than percentage category (12.5%), and very less than percentage category (13.3%). In conclusion, the overall physical condition of extracurricular students is in the fair category with a percentage of (41.6%). The intention of this research is to promote awareness among students to continually enhance and maintain their physical condition for achieving maximum success.

How to Cite

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INTRODUCTION

The use of software in current information technology has experienced rapid progress. The advancement in information technology can be utilized for various purposes, one of which is to support sports activities. Technological progress in sports also assists in providing information about the measurement of strength, endurance, and speed for athletes or students (M. S. Putra & Solikin, 2021). According to the Republic of Indonesia Law (UURI) No. 3 of 2005, Article 4 states: national sports aim to preserve and enhance health and fitness, achievements, human quality, instill moral values and noble ethics, sportsmanship, discipline, strengthen and improve national unity, enhance national resilience, and elevate the dignity, honor, and respect of the nation.

One of the sports that receives guidance as a performance sport is Pencak Silat. Pencak Silat is a self-defense method developed by the Indonesian people to protect themselves from danger. Pencak Silat is a branch of sports that also requires technology. For example, the process of scoring in Pencak Silat matches has been digitized. The presence of technology in Pencak Silat is evidence that collaborating various scientific studies is a step towards improving the quality of sports, especially Pencak Silat.

Pencak Silat is a distinctive martial art that has flourished in the Malay countries, notably with rapid development in Indonesia. The term Pencak Silat is widely known in Southeast Asia, but in Indonesia, the term Pencak Silat is used. Pencak Silat has become a popular sport in the region (Southeast Asia and Asia) and has also grown internationally. Representatives from various countries, not just from Asia, participate in the World Pencak Silat Championship. This demonstrates that Pencak Silat has created its own excellence and uniqueness for the development of this sport worldwide. There are numerous Pencak Silat schools in the country, each with its own set of movements and techniques. However, in reality, the taught techniques are almost the same; only the names differ Kartika dkk., (2022). Generally, Pencak Silat techniques include punches, kicks, throws, locks, parries, evasions, and ready stances. Each technique is further divided into several types, such as roundhouse kicks, straight kicks, "T" kicks, and others (Syamsuramel et al., 2019).

In addition to having good techniques, tactics, and mental skills, students or athletes in Pencak Silat also require good physical mastery. A good physical condition symbolizes the foundation for achieving peak performance. Physical fitness is a crucial component, and if someone experiences fatigue during a match, it can significantly affect the ongoing competition. Pencak Silat can also be practiced under specific physical conditions that stem from technical and tactical movement requirements. Techniques are greatly supported by good physical condition, such as kicking, striking, dodging, and throwing techniques. Some physical conditions in Pencak Silat include speed, explosive power of leg muscles, and explosive power of arm muscles (Putro et al., 2020).

Measuring physical conditions is essential to enhance the functional potential of athletes or students and maximize the development of biomotor abilities. The physical development plays a supporting role in success, emphasizing the importance of biomotor component abilities. Athletes should possess biomotor components such as endurance, muscle strength, speed, explosive power, agility, flexibility, and balance Hartati (2019). Manual methods for measuring physical conditions face difficulties in data collection and are less effective in determining the tested measurement results.

Physical fitness is the foundation of sports achievement because techniques, tactics, and mentality will develop well with good physical quality. An athlete or student will progress from basic to advanced techniques if they have sufficient fitness. The primary basis for selecting athletes is the initial physical condition needed. Physical fitness plays a crucial role in the training process; with physical strength, good techniques, tactics, and mentality, the training process can be enhanced. If the physical condition does not support the athlete's performance, they cannot demonstrate maximal technical, tactical, and mental abilities.

As a student's physical capabilities increase and the need for tools to measure their physical condition grows, researchers are expected to provide suitable tools to meet the students' needs. One way to utilize technology as an analytical tool is through testing and measurement. Testing and measurement are integral parts of human activities, as well as in sports teaching and training. Therefore, conducting these activities will provide information about the strengths and weaknesses of an athlete or student, enabling accurate decision-making (Hartati et al., 2018). Testing and measurement are science and technology-based instruments conducted to collect accurate data for each student regarding their physical condition, which can serve as a reference for cre-

ating a training program. The goal of the training program is to improve the quality and quantity of students' skills and fitness. Hence, in physical condition tests, students are required to perform to the best of their ability to obtain accurate personal data.

The development of talent needs to be prioritized, especially in terms of physical fitness, as the initial stage of coaching aims to identify high-quality athletic or student prospects. Physical fitness tests and measurements include strength tests, speed tests, balance tests, VO2Max tests, flexibility tests, hand-eye and foot coordination tests, endurance tests, reaction tests, and agility tests (Gumantan, 2020). All physical conditions require regular and measurable development and improvement. To obtain data for each of these components, accurate tests and measurements are necessary to assess the extent of the physical fitness quality of Pencak Silat students. Assessing an individual's physical condition cannot be done solely by observation; tests are required. These tests can be conducted in laboratories or in the field.

In terms of terminology, an application is a ready-made program created to perform a specific function for users or other applications and can be used by the intended means (Khoiroh, 2017). Applications are part of the scientific measurement testing in sports with established norms, assessments, and tests for each category. Thus, sports measurement tests become a tool for coaches, teachers, and all sports practitioners. To classify individuals in creating programs, coaches use these tests to determine the expected achievement for each athlete. Information systems based on applications and measurements operated by connected devices facilitate and assist coaches in monitoring (Yusfi et al., 2022).

Based on the researcher's observation conducted in collaboration with physical education teachers, there is an issue where Pencak Silat students receive insufficient attention regarding their physical condition. This is because, traditionally, the measurement of physical test results still relies on manual methods to determine the normative data from the conducted physical tests. As a result, teachers face difficulties in categorizing the norms from all the physical tests, leading to accumulated data that remains unresolved. Even until the time of competitions, there is a lack of accountable physical data for students. Therefore, the researcher intends to conduct a trial to measure physical test results using an application in collaboration with the Physical Education Teacher Working Group (MGMP PJOK) at Palembang 03 Public Junior High School.

METHODS

The research design employed in this study is quantitative descriptive research. The method used is a survey on the measurement of physical test results. This descriptive research aims to implement an application in the Pencak Silat sports branch for students at Palembang 03 Public Junior High School to measure the results of physical conditions. These results will be used as a reference in developing training programs to determine the achievement goals. Through this implementation, an application that can be effectively applied and beneficial for users will be utilized. The research subjects refer to objects, things, people, and the location where data for the research variables are attached and questioned (Arikunto, 2015:116). The subjects in this study were conducted with the Physical Education Teacher Working Group (MGMP Pjok) of Palembang City as partners in conducting tests and measurements of the physical conditions of 20 extracurricular Pencak Silat students at Palembang 03 Public Junior High School. The sample consists of 13 male students and 7 female students participating in the Pencak Silat extracurricular. The research was conducted in two stages: the first stage involved data collection on Wednesday, November 29, 2023, at Palembang 03 Public Junior High School. The second stage included the measurement of physical test data using the application on Monday, December 1, 2023, at FKIP UNSRI Campus Km.5, Jl. Srijaya, Alang-alang Lebar District, Palembang City, South Sumatra.

The data collection techniques to be employed in this research include direct observation at the research site, namely Palembang 03 Public Junior High School. In this context, it requires test instruments and measurements to obtain the results of physical tests, which will then be input into the application to determine the norm categories of the tests conducted simultaneously. This ensures that the data or information obtained is accurate and accountable. Research instruments are tools used to collect, manage, and interpret respondent information created with the same measurement scheme (Sugiyono, 2015:156). The instrument in this research is the measurement of physical condition tests conducted with the Physical Education Teacher Working Group (MGMP Pjok) at Palembang 03 Public Junior High School. The selected tests align with the physical components in Pencak Silat sports, including the 30-meter sprint test, T-test agility, vertical jump test, bleep test, standing stork test, and one-minute push-up test.

30-Meter Sprint Test

Objective: To measure the speed of volleyball players.

Equipment: Running track, whistle, stopwatch.

Execution:

    a. The testee positions themselves behind the starting line and assumes a ready position to run.

    b. The sprint begins from a crouched start.

    c. Upon the command "ready," the testee gets ready to sprint from a standing start.

    d. Upon the command "go," the testee sprints as quickly as possible, covering a distance of 30 meters past the finish line.

    e. The sprint speed is measured from the "go" command.

    f. Time recording is done up to tenths of a second (0.1 seconds) and, if possible, up to hundredths of a second (0.01 seconds).

    g. The testee performs the test twice, with the next sprint occurring after a minimum interval of one runner. The best sprint speed is recorded.

    h. The testee is deemed unsuccessful if they cross or step over the designated track.

Assessment: Record the sprint results in correlation with the time taken. (Source: Harsuki, 2017)

Table 1. 30 Meter Sprint Test Norms

Norms	Man	Woman
Excellent	≥ 3.9	≥ 4.5
Good	4.0 - 4.3	4.6 – 4.9
Adquate	4.4 - 4.7	5.0 – 5.4
Inadequate	4.8 – 5.0	5.5 – 5.9
Very Poor	< 5.0	< 5.9

(Source: Harsuki, 2017)

T-Test Agility

Objective: To measure the agility of the athlete.

Equipment: Cones, measuring tape, stopwatch, and a flat field.

Procedure:

a. Set up cones in the shape of the letter T with a distance of 10 meters from cone A to B, and 5 meters from cone B to C and B to D.

b. The testee stands on the line at cone A, and upon the start signal, the testee runs to touch cone B.

c. Then, the testee runs sideways to the right to touch cone C, then runs sideways to the left to touch cone D, and finally returns to touch cone B.

d. Subsequently, the testee runs backward towards the finish line at cone A.

Assessment: The test results are calculated upon reaching the finish line at cone A, and the time taken to perform the movements is recorded.

Source: Harsuki, 2017

Table 2. Agility Test Norms

Norms	Man	Woman
Excellent	< 9,5	< 10,5
Good	9,5 - 10,5	10,5 – 11,5
Adquate	10,5 – 11,5	11,5 – 12,5
Inadequate	>11,5	>12,5

Source: Harsuki, 2017

Vertical Jump

Objective: To measure leg explosive power.

Equipment: Measurement board, board eraser, chalk powder.

Execution:

    a. The board is suspended on the wall at the testee's reachable height.

    b. The testee stands beneath the measurement board, reaches upward with hands as high as possible, and marks the highest point on the board.

    c. Jump without a preliminary step.

    d. Beforehand, the testee's hands are dusted with chalk powder. The testee then stands beneath the measurement board, reaches upward with hands as high as possible, and marks the highest point on the board.

    e. The chalk-marked handprint is read on the scale of the board (point A). Afterward, the testee retrieves the board hanging on the wall.

Assessment: The value is observed on the measurement tool. The best recorded value is taken.

Table 3. Vertical Jump Test Norms (cm)

Norms Age	Man				
	12	13	14	15	16
Excellent	20"	20"	20"	25"	25"
Good	17"	17"	17"	23"	23"
Adquate	14"	14"	14"	19"	20"
Inadequate	11"	11"	11"	12"	17"
Very Poor	5"	5"	5"	5"	5"

Norms Age	Woman				
	12	13	14	15	17
Excellent	16"	16"	16"	17"	16"
Good	14"	14"	14"	15"	13"
Adquate	12"	12"	12"	13"	8"
Inadequate	10"	10"	10"	8"	8"
Very Poor	4"	4"	4"	3"	3"

(Source: Harsuki, 2017)

Bleep Test

Objective: To measure the endurance of athletes.

Equipment: Flat track, measuring tape, cassette and tape recorder, cones, stopwatch; Personnel: Distance measurer, Start official, Track supervisor, Score recorder.

Execution:

a. The bleep test involves running back and forth over a distance of 20 meters.

b. It begins with a gradual increase in running speed, starting slowly and progressively accelerating until the athlete is unable to maintain the pace in sync with the time rhythm.

c. The maximum endurance level is determined based on the back-and-forth running at which point the athlete can no longer keep up.

Assessment: Record the distance covered by the student in the back-and-forth run.

This endurance test, utilizing the Bleep/Multi-Stage method, is designed to gauge an athlete's ability to sustain effort over time. It involves progressively challenging running speeds to determine the point at which the athlete's endurance reaches its maximum level. The recorded distance covered during the back-and-forth run serves as an indicator of the athlete's endurance performance. (Source: Harsuki, 2017)

Table 4. Bleep Test Norms

Category (Man)	Age (Year)					
	10 -14	15-19	20-29	30-39	40-49	50-59
Excellent	≥ 52	≥ 48	≥ 43	≥ 36	≥ 31	≥ 26
Good	46-51	42-47	37-42	31-35	26-30	22-25
Adquate	41-45	38-41	33-36	27-30	22-25	18-21
Inadequate	35-40	33-47	29-32	22-26	17-21	13-17
Very Poor	≤ 36	≤ 32	≤ 28	≤25	≤ 16	≤ 12
Category (Woman)	Age (Year)					
	10 -14	15-19	20-29	30-39	40-49	50-59
Excellent	≥ 48	≥ 42	≥ 36	≥ 29	≥ 25	≥ 19
Good	42-47	36-41	31-35	24-28	20-24	12-18
Adquate	36-41	31-35	25-30	20-23	15-19	5-11
Inadequate	33-35	27-30	21-24	15-19	7-14	3-4
Very Poor	≤ 32	≤ 26	≤ 20	≤ 14	≤ 6	≤ 2

(Source: Harsuki, 2017)

Standing Stork Test

Objective: To measure the balance of the athlete.

Equipment: Carpet or flat floor, stopwatch.

Procedure:

a. The testee stands with both feet, and hands are placed on the waist.

b. Lift one foot and place it against the opposite knee.

c. Follow the "start" command from the tester.

d. Lift the heel while standing on the toes, then the tester starts the stopwatch.

e. Maintain the position for as long as possible without the heel touching the ground or the foot straying far from the knee.

Assessment: Record the time achieved while performing the movement. Source: (Persada., 2015)

Table 5. Standing Stork Test

Norms	Man	Woman
Excellent	< 51 second	< 51 second
Good	50 – 37 second	50 – 37 second
Adquate	36 – 15 second	36 – 15 second
Inadequate	< 14 second	< 14 second

(Source: (Persada., 2015)

Push-Up Test

Objective: To measure the arm muscle strength of an athlete.

Equipment: Carpet or flat floor, stopwatch.

Execution:

a. Participants lie on the carpet, and after receiving instructions, they are allowed to adjust to the most comfortable position for performing push-ups.

b. Establish hand spacing, placing them on the floor with a wider gap. Ensure that the thumbs are positioned straight in line with the chest. Position the fingers facing upwards and spread them apart.

c. Movements are counted if the participant, while lifting the body, passes the threshold, and when lowering, the arms remain straight.

Assessment: Record the number of push-up movements completed within 60 seconds.

The Push-Up Test is designed to assess an athlete's arm muscle strength. Participants lie on the carpet, adjusting to a comfortable position, and perform push-ups with specific hand placement and movement criteria. The assessment involves recording the number of push-up movements completed in a 60-second duration.

Table 4. Push Up Test Norms

Norms	Man	Woman
Excellent	>56	>35
Good	47 < X > 55	27 < X > 34
Adquate	35 < X > 46	21 < X > 26
Inadequate	19 < X > 34	11 < X > 20
Very Poor	< 18	< 10

(Source: Harsuki, 2017)

The data analysis technique is a method used to manage data to generate accurate conclusions. In this study, a quantitative descriptive data analysis technique was employed. The data obtained from each measurement represent raw data from the results obtained by the students. Normality tests were conducted using computer software, specifically SPSS 29, and percentages were obtained using the following formula (Sudijono, 2015:40);

$$P = N/F \times 100\%$$

Information:
P: represents the percentage
F: represents the respondent's score
N: represents the maximum score

RESULTS AND DISCUSSION

This research was conducted Palembang 03 Public Junior High School, located at Jl. Ariodillah No.2280, 20 Ilir D. III, Kec. Ilir Timur I, Kota Palembang, South Sumatra. The research was conducted in collaboration with one of the PJOK (Physical Education, Sports, and Health) subject teachers at Palembang 03 Public Junior High School. The objective of this research is to implement the measurement of physical test results in the martial art of Pencak Silat using an application for the students of Palembang 03 Public Junior High School.

Prior to the study, the researcher gathered information regarding the measurement of physical test results in Pencak Silat at Palembang 03 Public Junior High School. It was found that there was an issue with the manual measurement of physical test results in Pencak Silat, which did not contribute to the school's overall achievement. Based on this issue, the researcher conducted direct observations and discovered that Pencak Silat students lacked attention in terms of their physical condition. This resulted in difficulties for teachers in establishing norms for all the collected data, leading to a pile-up of unresolved data. To address this problem, the researcher aims to collect physical test data of Pencak Silat students at Palembang 03 Public Junior High School in order to understand the physical test data that has been conducted.

Shapiro-Wilk Normality Test Results

The following are the results of the Shapiro-Wilk normality test;

Table 7. Shapiro-Wilk Data Normality Test Results

Test of Normality			
Shapiro-Wilk			
	Statistic	df	Sig.
Endurance	.930	20	.154
Speed	.932	20	.171
Agility	.918	20	.091
Strength	.969	20	.740
Explosive Power	.958	20	.511
Balance	.959	20	.531

The normality test results were conducted to determine whether the data follows a normal distribution or not. The normality test utilized the Shapiro-Wilk analysis technique, and the calculations were performed using SPSS 29. The tested data included endurance tests such as the bleep test, speed tests such as the 30-meter sprint, agility tests such as the t-test agility, strength tests such as the 1-minute push-up, muscle explosive power tests such as the vertical jump, and balance tests such as the standing stork test for students in the Pencak Silat extracurricular branch.

Based on the data presented in **Table 7** the normality test was conducted using SPSS 29 statistics, and the results in the Shapiro-Wilk table showed that the data had degrees of freedom (df) equal to the sample size of 20 individuals. To determine whether the data in the Shapiro-Wilk output follows a normal distribution or not, the decision-making basis for the Shapiro-Wilk normality test is applied. Firstly, if the significance value (sig.) > 0.05, the data is considered normally distributed. Secondly, if the significance value (sig.) <0.05, the data is considered non-normally distributed. For more detailed information, the normality test results for the physical test data are presented below:

1. Endurance Test Normality Test with a significance value (sig) of 0.1 resulted in sig = 0.154.
2. Speed Test Normality Test with a significance value (sig) of 0.1 yielded sig = 0.171.
3. Agility Test Normality Test with a signifi-

cance value (sig) of 0.1 showed sig = 0.091.

4. Arm Strength Test Normality Test with a significance value (sig) of 0.7 resulted in sig = 0.740.

5. Muscle Explosive Power Test Normality Test with a significance value (sig) of 0.5 yielded sig = 0.511.

6. Balance Test Normality Test with a significance value (sig) of 0.5 showed sig = 0.531.

Data Analysis Results

The data analysis was obtained through the calculation of each norm category, and the data from each component of the physical test were described to provide insights into the average physical condition of students at Palembang 03 Public Junior High School. To provide further clarity, the data for each norm category is presented in the **Table 8.**

Based on **Table 8** the overall results of the physical test measurements in the Pencak Silat sports branch at Palembang 03 Public Junior High School, using the application, indicate that the average physical condition falls within the following categories: excellent with a percentage of 10.8%, good with a percentage of 21.6%, fair with a percentage of 41.6%, poor with a percentage of 12.5%, and very poor with a percentage of 13.3%.

Table 8. Data Analysis Results

Indicator	Category				
	Excellent	Good	Adquate	Inadequate	Very Poor
Endurance	0%	5%	5%	10%	80%
Speed	20%	20%	40%	20%	0%
Agility	15%	35%	35%	15%	0%
Strength	5%	25%	55%	15%	0%
Explosive Power	25%	30%	35%	10%	0%
Balance	0%	15%	80%	5%	0%
Average	10,8%	21,6%	41,6%	12,5%	13,3%

Based on the data collected from physical fitness tests and the measurements using the application, there is a need for discussion regarding the implementation of physical fitness measurement in the Pencak Silat sports branch using the application. This implementation aims to assist teachers or coaches in determining and organizing the results of the physical tests conducted. The application for measuring physical fitness in the Pencak Silat sports branch is expected to enhance and develop biomotor skills to the highest standards.

The research findings on the endurance measurement of Pencak Silat extracurricular students at Palembang 03 Public Junior High School, assessed through the bleep test, indicate that the majority of male students are classified as very poor, and female students are also classified as very poor on average. According to Ramli, A. C. (2021), endurance is crucial throughout a match, and individuals with lower endurance may face difficulties against opponents with better endurance. The lack of endurance in these students may be attributed to insufficient training activities, such as jogging and stair climbing.

The study also measured the speed of Pencak Silat extracurricular students at Palembang 03 Public Junior High School through a 30-meter sprint, categorized by gender. The results show that, on average, male students fall into the moderate category, while female students also fall into the moderate category. According to Syamsuramel et al., (2019), speed in Pencak Silat is essential for quick attacks, variations, and the ability to move specific body parts or shift positions as swiftly as possible during a match. The lack of speed in these students may be influenced by insufficient training in activities such as sprinting, running with resistance, and an excessive focus on technique alone.

Based on the research findings on the agility measurement of Pencak Silat extracurricular students at Palembang 03 Public Junior High School, assessed through the T-test agility, it is observed that the majority of male students fall into the "good" category, while female students fall into the "moderate" category on average. As explained by Saputro & Siswantoyo (2018), agility is the ability to quickly and accurately change direction and body position without losing balance, maintaining awareness of body position while in motion. There is a need for improved agility training for male students with a "good" category to enhance and sustain their physical activities. Additionally, female students should focus on increasing agility through exercises such as zigzag running, quick back-and-forth sprints, and others.

Regarding the strength measurement of Pencak Silat extracurricular students at Palembang 03 Public Junior High School, assessed through the one-minute push-up test, the results indicate that, on average, male students fall into the "moderate" category, while female students also fall into the "moderate" category. According to Harsuki, (2017), who explains the implementation of push-ups, the strength of Pencak Silat extracurricular students at Palembang 03 Public Junior High School needs improvement. Gu-

mantan (2020) suggests that strength is crucial in Pencak Silat matches, as it is required for powerful and rapid strikes and the ability to withstand hand-held loads. To enhance strength, a systematic program should be implemented, addressing the simultaneous improvement of speed. It is essential to address the lack of appropriate strength training to balance technical training and physical condition.

Based on the research findings on the muscle explosive power measurement of the lower limbs of Pencak Silat extracurricular students at Palembang 03 Public Junior High School, assessed through the vertical jump as per Harsuki's theory (2017), the results indicate that the majority of male students fall into the "good" category, while female students fall into the "moderate" category on average. According to Putra, A., & Rifki, M. S. (2021), the explosive power of the lower limb muscles is a combination of several physical elements, namely the speed multiplied by strength. This means that the ability of muscle explosive power can be observed from the results of work done using strength or speed. In Pencak Silat, explosive power is crucial when students perform kicks, as the support is on one leg. The better the quality of the students' muscle explosive power, the better the results of kicks and the load on one leg. The lack of muscle explosive power in students may be due to insufficient training and a lack of progressive resistance in training.

Regarding the research findings on the balance measurement of Pencak Silat extracurricular students at Palembang 03 Public Junior High School, assessed through the standing stork test based on Wahjoedi's theory (2015), the results indicate that the balance of the majority of male students falls into the "moderate" category, while female students also fall into the "moderate" category on average. As explained by Kurnia et al. (2020), balance is the ability of an individual to control their neuromuscular organs during rapid movements with quick changes in the center of gravity, both in static and dynamic conditions. In Pencak Silat, balance is crucial, especially in techniques that involve the use of legs, such as kicks and self-defense against opponent attacks like sweeps and scissors. The lack of balance training in students may be due to insufficient improvement in training, both in terms of time and repetition. Therefore, after conducting this research, it is expected that teachers, coaches, and students prioritize their physical quality first.

CONCLUSION

Based on the research results, the application for measuring the physical test results in the Pencak Silat sports branch, accessible through a website, serves to assess the abilities and biomotor skills of Pencak Silat students. The implementation of this application facilitates teachers or coaches in tracking the physical condition history of Pencak Silat extracurricular students, indicating whether there has been improvement or decline over time. Based on the research findings, it can be concluded that the physical test measurements using the application for Pencak Silat extracurricular students at Palembang 03 Public Junior High School fall into the following categories: excellent with a percentage of 10.8%, good with a percentage of 21.6%, fair with a percentage of 41.6%, poor with a percentage of 12.5%, and very poor with a percentage of 13.3%. From the explanation above, it can be concluded that the average physical condition of students falls into the fair category with a percentage of 41.6%.

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