

**ESTABLISHING OF IDENTIFICATION SYSTEM IN PENCAK SILAT:  
COACHES PERSPECTIVE ON PHYSICAL PERFORMANCE  
CONTRIBUTION**

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**Abstract**

*This study aims to reveal the coach's perspective of pencak silat about the importance of ideal physical abilities for pencak silat athlete. The data was obtained through survey using the trainer's perception test instrument (I Need) comprising 10 questions about the contribution of each item on physical ability for professional athlete of pencak silat. The respondents of this study are 174 qualified pencak silat trainers at the provincial, national and international levels spreading over 25 provinces in Indonesia. Data were analyzed using a descriptive statistical approach to percentages. Based on the study result, (1) 86.78% respondents answered that endurance is very necessary, (2) 81.61% respondents answered that strength is needed, (3) 86.78% respondents answered that flexibility is very necessary, (4) 77.01% running speed is needed, (5) 88.51% respondents answered that agility is very necessary, (6) 84.48% respondents answered that core stability is needed, (7) 85.63% respondents answered that balance is very necessary, (8) 55.17% respondents answered that jumping is quite necessary, (9) respondents answered 74.12% climbing is not needed, (10) 67.24% respondents answered that overhang is not necessary. Based on the indicators answered by the respondents, the first physical abilities that are needed are agility, endurance, flexibility, and balance. Whereas what is not so necessary is climbing and hanging.*

**Keywords:** establish; perspective; physical performance; pencak silat

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**INTRODUCTION**

Indonesia has various potentials to be able to excel and compete globally particularly in sport aspect. One of potential sports is Pencak Silat. This sport is originally from Indonesia. At the of 2018, Asian Games was held in Jakarta and

Palembang, Indonesian Pencak Silat athlete achieved 10 gold medals out of 37 gold medals. This achievement is necessary to be improved at international level. Indonesia is currently struggling to make sport of Pencak Silat as one of Olympic sports. However, many countries are struggling to raise professional athlete of Pencak Silat by combining effective and efficient knowledge and technology.

Many factors affecting Pencak Silat achievement, including optimal coaching for athletes. Athlete training should be focused on talent identification system, to match between athlete potential and interest. In addition, the level of basic movement abilities and coordination abilities also greatly influence the development process (Bakhtiar et al., 2020). It can be interpreted that the development of Pencak Silat must be right on target by paying attention to the initial foundation of athletes, those whose great basic movement skills.

Currently, the coaching of pencak silat in the process of recruiting and coaching athletes has not implemented talent identification system as it should be. However, athletes who are coached are only based on considering that they have won the title of “Early Specialization” champion. So that many athletes who are actually more talented, but have not won the championship will not be selected in the long-term elite athlete development process. Whereas for other sports, this talent identification system has been implemented for a long time and has succeeded in producing champions. Therefore, to catch up in this sport, it is necessary to implement a good and measurable talent identification system in selecting and recruiting athletes.

Pencak silat is one of the creations of the Indonesian people and is part of the culture of the Malay community. Pencak silat is a self-defense sport originally from Indonesia (Dimiyati et al., 2020). This Pencak Silat sport is not only competed at the regional level but also at the National to International level. Pencak Silat has also been competed in several international competitions such as the Asian Games and Sea Games. This proves that the sport of Pencak Silat can elevate the dignity of the nation in the international world. At the 2018 Asian Games Pencak Silat donated at least 10 gold medals for Indonesia. Seeing this

reality, continuous coaching should be carried out in order to improve the quality of athletes and achieve sports goals as stated in the RI Law No. 3 of 2005 concerning the National Sports System.

Achievements cannot be obtained suddenly, to achieve achievements, they must be planned, designed, in such a way as well as possible so that at the right time they can be achieved. The perception of coaches in the talent identification system is needed to see the characteristics of talented athletes in the coaching process, especially in the Pencak Silat branch (Sartono et al., 2018) both in terms of mental, physical and anthropometric conditions (J. Pion, 2017). So far, pencak silat still relies on the observations and perceptions of coaches in selecting and carrying out coaching programs. The perception of these trainers should be collected and used as input to build and develop the sport of pencak silat in Indonesia, of course, by using the right rules and approaches as well as the application of sport science so that the goals can be achieved optimally.

Perception is the experience of objects, events, or relationships obtained by inferring information and interpreting messages (Sartono et al., 2018). Based on the experience of the coach, a coach should be able to objectively assess the abilities of the children whose abilities will be developed. For a coach, good movement skills are mandatory abilities that must be possessed by a prospective athlete. Because movement skills are the basis for realizing all basic technical abilities in various sports (Bakhtiar, 2015).

Several studies have been conducted in various regions in Indonesia regarding the development of the sport of pencak silat. Especially in the field of identifying talent, there are no mutually agreed standards used by coaches and coaches in the recruitment of athletes. Each region has its own strategy in attracting its athletes, with the potential for pencak silat in Indonesia there should be a standard and an up-to-date system in recruiting seeds and prospective athletes. (Assalam D. et al, 2015) said that the development of pencak silat in the East Kalimantan area is still not good, the recruitment of athletes also refers to the criteria determined by the coach and coach. Based on this explanation, it is clear

that there is no recruitment standard in selecting the seeds of pencak silat athletes. Furthermore, (Rohman U. et, al, 2019) concluded that the profile in measuring the physical condition of the PPLP Pencak Silat athletes in East Java consisted of components of agility, leg muscle power, endurance, speed, strength and flexibility. The study that has been carried out should be a reference for us in compiling and agreeing on what indicators are needed in physical performance for a Pencak Silat athlete. Of course, this can be done by collecting information from the perceptions of trainers who are already competent in Indonesia. Furthermore, (Akhmad et al, 2016) stated that in the selection of prospective Pencak Silat athletes to be fostered, it should be carried out objectively and transparently as has been done at PPLM FIK Makassar State University, data processing is carried out using triangulation techniques.

Based on the existing problems regarding the search for athlete seeds that have not been carried out through an effective talent identification process, through this study the researchers collected data about the trainer's perception of the characteristics of the ideal pencak silat athlete in order to get more representative results. So far, there is no standard in the selection or selection of athletes in the pencak silat branch. By obtaining data on the ideal characteristics of a pencak silat athlete from coaches scattered throughout Indonesia. This research is an initial study in building a pencak silat talent identification system in Indonesia, further studies analyze the perception of trainers and set indicators in the required physical performance instruments. The next stage of this research will be continued until the creation of a standard with common provisions in recruiting potential athletes. Furthermore, an application will be created that can be used by Pencak Silat coaches, parents, athletes in determining the talent of an athlete and fostering Indonesian pencak silat achievements.

## **METHOD**

The research method used by the author is a survey method, a quantitative research used to obtain data that occurred in the past or present, about beliefs,

opinions, characteristics, behavior of variable relationships and to test several hypotheses about sociological and psychological variables from the samples taken. from a certain population, data collection techniques with observations (interviews or questionnaires) that are not in-depth, and research results tend to be generated, (Sugiyono, 2013).

In this study, the authors conducted a survey of 174 pencak silat trainers in Indonesia spread over 25 provinces in Indonesia and 1 coach from Singapore. Characteristics of heterogeneous population where the qualifications of trainers at regional and provincial levels, national levels and international levels. The population in this study were pencak silat trainers in Indonesia, sampling that did not provide equal opportunities or opportunities for each element or member of the population to be selected as samples. More precisely, using a purposive sampling technique is a sampling technique with certain considerations in accordance with the desired criteria, (Sugiyono, 2018). Based on this explanation, the sample data in this study were determined by purposive sampling.

The data in this study were collected using a questionnaire available on Google Form to get answers to the questions posed to the respondents. The questions asked in this survey include: (1) endurance, (2) arm strength, (3) flexibility, (4) speed, (5) agility, (6) core stability, (7) balance, (8) ability jumping, (9) climbing ability and (10) hanging ability, which are considered to contribute to an ideal fighter. In this study, the researcher will present the results of the measurement of research data in the form of quantitative data which will be calculated using a percentage descriptive technique.

$$P = \frac{F}{N} \times 100\%$$



Figure 1. Research Questionnaire

## RESULT AND DISCUSSION

### 1. Durability

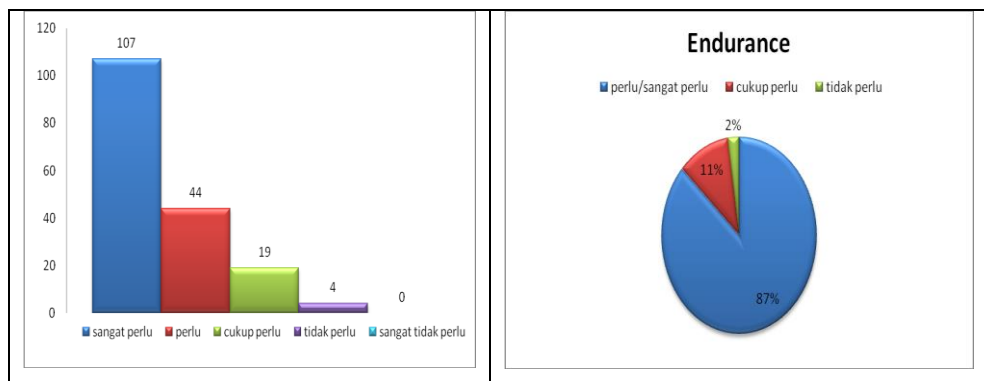
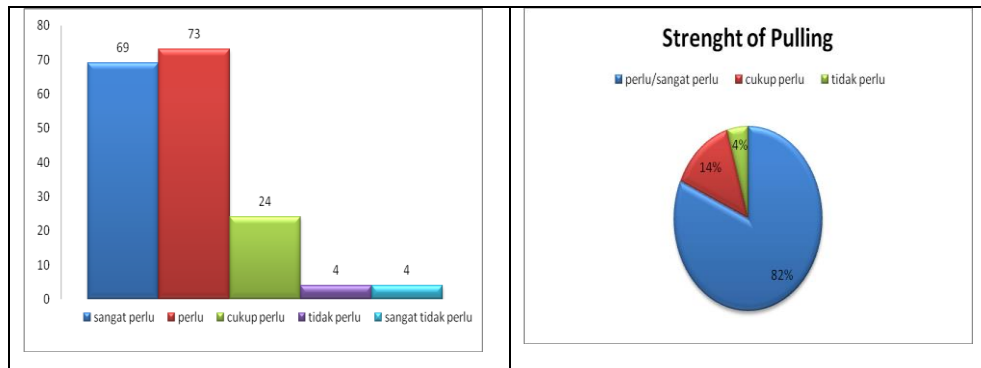


Figure 2. Histogram of the Importance of Endurance Ability

The results showed that from 174 Pencak Silat trainers, about the contribution of endurance, 107 trainers said it was very necessary, 44 trainers said it was necessary, 19 people said it was quite necessary, only 4 trainers said it was not necessary. Based on this, 87% said it was necessary to very necessary, 11% said it was quite necessary and only 2% of respondents said it was not necessary.

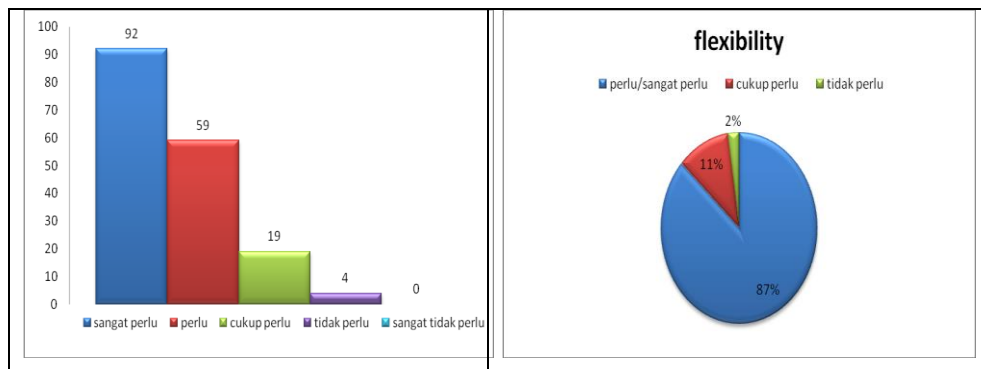
## 2. Load Pulling Strength



**Figure 3.** Histogram of the Importance of Strength Ability

The results of the study from 174 Pencak Silat trainers, regarding the contribution of pulling the load, revealed that 69 said it was very necessary, 73 respondents said it was necessary, 24 people said it was quite necessary. While 8 people said it was not necessary. Based on this, 82% said it was necessary to very necessary, 14% said it was quite necessary and only 4% of respondents said it was not necessary.

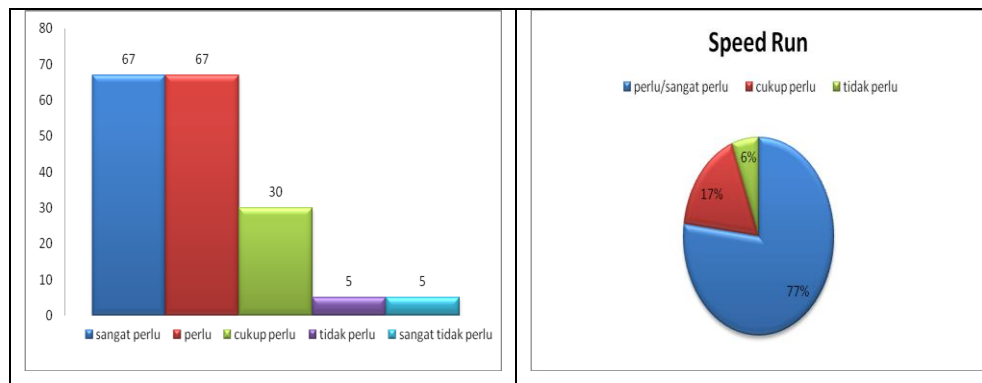
## 3. Flexibility



**Figure 4.** Histogram of the Importance of Flexibility

The contribution of flexibility in Pencak Silat based on 174 trainers revealed, 92 said it was very necessary, 59 people said it was necessary, 19 people said it was quite necessary, and only 4 people said it was not necessary. There were 87% said it was necessary to very necessary, 11% said it was quite necessary and 2% said it was not necessary.

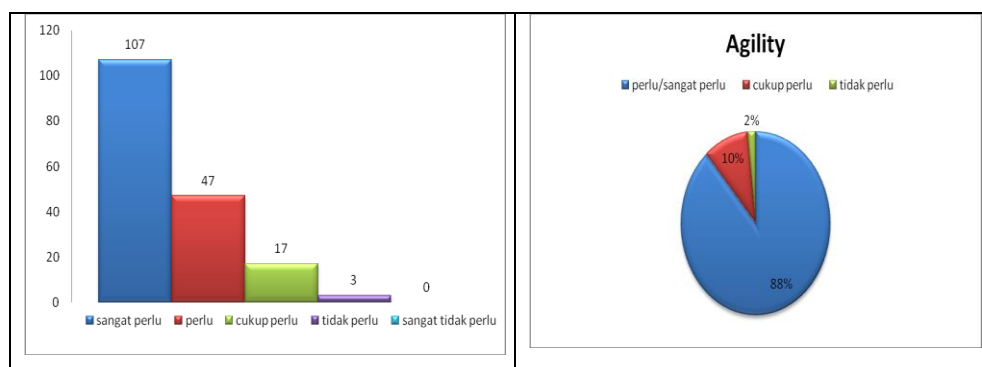
#### 4. Speed



**Figure 5.** Histogram of the Importance of Speed Capability

Of the 174 Pencak Silat trainers, regarding the contribution of speed, 67 trainers said it was very necessary, 67 trainers said it was necessary, 30 said it was quite necessary, there were 5 trainers who said it was not necessary and 4 people said it was absolutely not necessary. Based on this, 77% of respondents said it was necessary to very necessary, 11% of respondents said it was quite necessary and only 6% of respondents said it was not necessary to very unnecessary.

#### 5. Agility



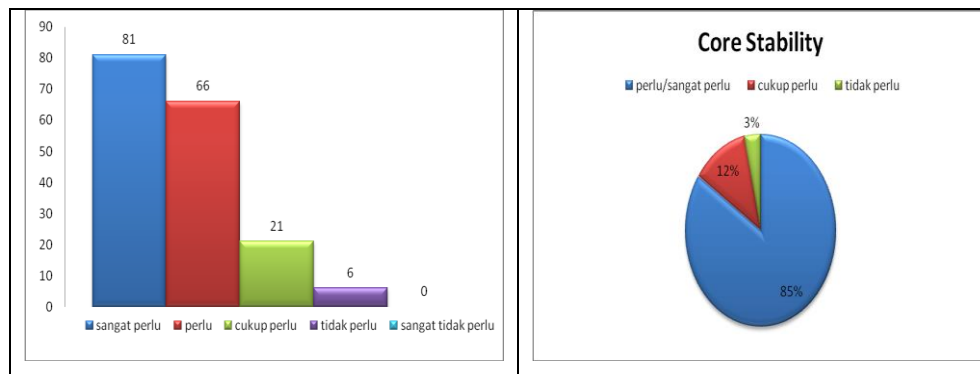
**Figure 6.** Histogram of the Importance of Agility

The contribution of agility in Pencak Silat based on 174 coaches revealed, 107 said it was very necessary, 47 people said it was necessary, 17 people said it was quite necessary, and only 3 people said it was not necessary. There were 88% said it was necessary to very necessary, 10% said it was quite necessary and 2% said it was not necessary.





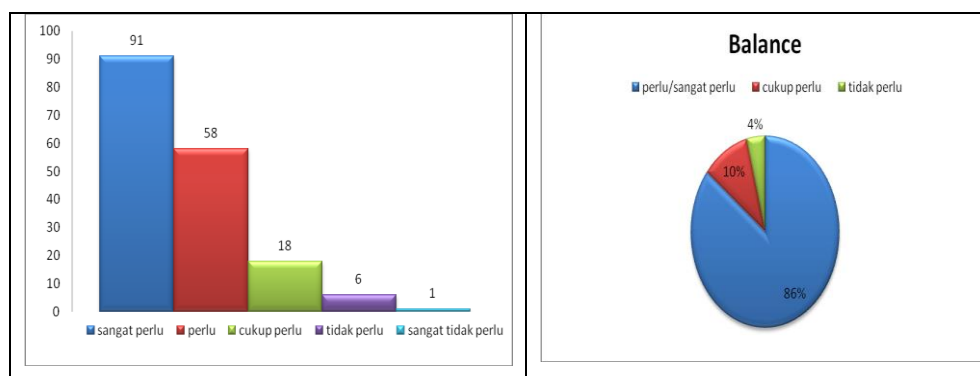
## 6. Core Stability



**Figure 7.** Histogram of the Importance of Core Stability

Based on data collection, about the contribution of stability (core stability) in Pencak Silat based on 174 trainers revealed, 81 said it was very necessary, 66 people said it was necessary, 21 people said it was quite necessary, then 6 people said it was not necessary. There were 85% said it was necessary to very necessary, 12% said it was quite necessary and 3% said it was not necessary.

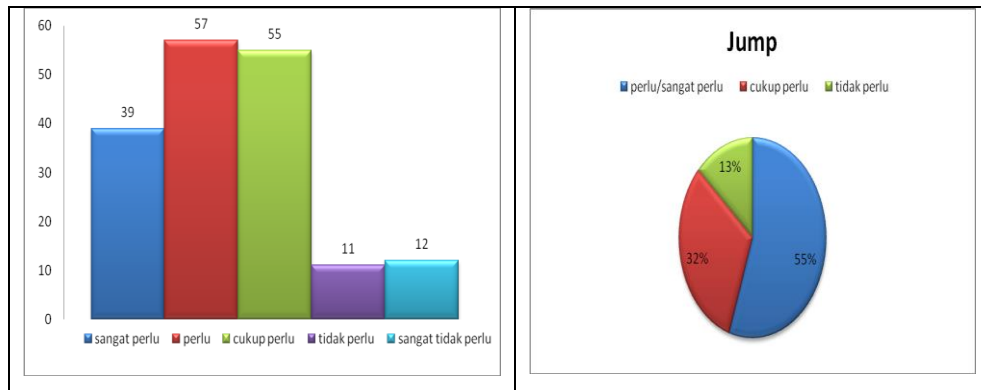
## 7. Balance



**Figure 8.** Histogram of the Importance of Balance Ability

Based on data collection, about the contribution of balance in pencak silat based on 174 trainers revealed, 91 said it was very necessary, 58 people said it was necessary, 18 people said it was quite necessary, then 6 people said it was not necessary and 1 person said it was absolutely not necessary. There were 86% said it was necessary to very necessary, 10% said it was quite necessary and 4% said it was not necessary.

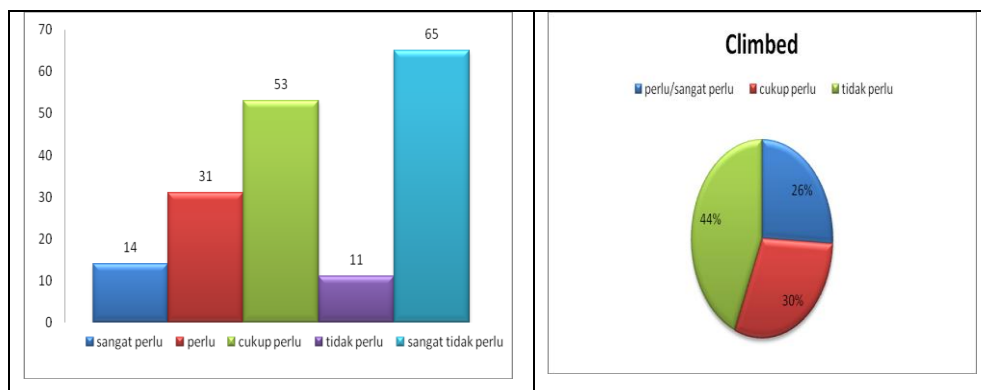
## 8. Jump



**Figure 9.** Histogram of the Importance of Jumping Ability

Based on data collection, regarding the contribution of jumping in Pencak Silat based on 174 trainers, 39 said it was very necessary, 57 people said it was necessary, 55 people said it was quite necessary, then 11 people said it was not necessary and 12 people said it was absolutely not necessary. There were 55% said it was necessary to very necessary, 32% said it was quite necessary and 13% said it was not necessary.

## 9. Climb



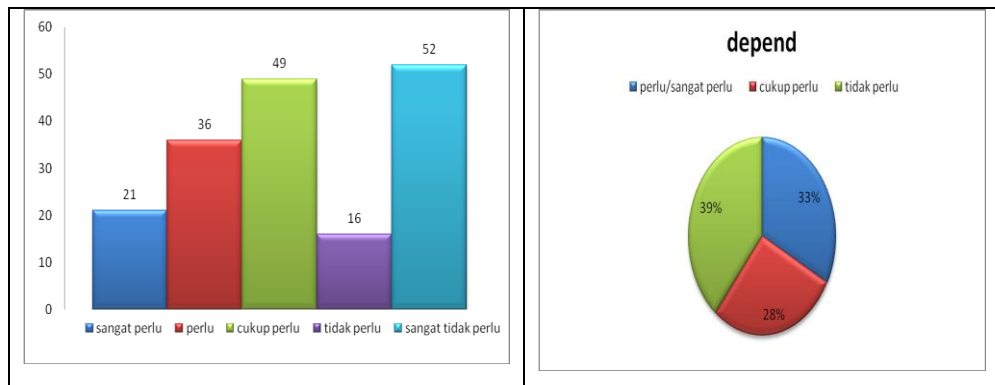
**Figure 10.** Histogram of the Importance of Climbing Ability

Based on data collection, regarding the contribution of climbing in Pencak Silat based on 174 trainers, 34 people said it was very necessary, 31 people said it was necessary, 53 people said it was quite necessary, then 11 people said it was not necessary and 65 people said it was absolutely not necessary. There were 26%



said it was necessary to very necessary, 30% said it was quite necessary and 44% said it was not necessary

## 10. Hang



**Figure 11.** Histogram of the Importance of Hanging

Based on data collection, regarding on hang contribution in pencak silat based on 174 trainers revealed, 21 people said it was very necessary, 36 people said it was necessary, 49 people said it was quite necessary, then 16 people said it was not necessary and 52 people said it was absolutely not necessary. Found 33% said it was necessary to very necessary, 28% said it was quite necessary and 39% said it was not necessary

## Discussion

One of the cultural heritages of the archipelago that has received international recognition is pencak silat (Subekti et al., 2020). Pencak silat competitions are divided into two categories, namely traditional arts and martial arts. Traditional art refers to movements that are beautiful but have elements of defending themselves from various opponent attacks. Then it is said to be a martial art because in pencak silat one is trained to use techniques, rules, and philosophy in one's silat (Sampurna et al., 2021). A pencak silat athlete is not only trained to be able to make the best achievements in the arena, but they are also taught to have good mental and spiritual as well as noble personality. Movements in pencak silat are complex and must be carried out at high speed and athletes are required to have good physical abilities, including: endurance, agility, strength,

power, speed, and endurance which are needed during training and participating in competitions.(James et al., 2016).

As one of the sports that is expected to be competed in Olympic-class events, of course, Indonesia as the homeland of this martial arts branch must prepare athletes who are able to compete at the international level. Considering that countries in various other parts of the world have also participated in this sport in various international matches. For this reason, Indonesia must have a system to produce strong fighters who can win championships

There are many factors that affect the achievement of the sport of pencak silat, one of which is the talent detection program that has not been implemented properly. So far, the selection of athletes in this sport is only done through selection based on results. And based on a coach's observations of athletes. This selection system is certainly not scientifically acceptable. Because according to some experts, it takes 1000 trainers to identify one athlete (J. Pion, 2015).

So far, no scientific information has been obtained regarding the physical performance criteria for a pencak silat athlete. Meanwhile, in other sports that are competed in the Olympic events, they have physical performance criteria. Physical ability is a basic component to determine the ability of an athlete(Yelshibaeva et al., 2018)included in the sport of pencak silat. Related to this reality, researchers have conducted a series of surveys related to the characteristics of physical abilities that must be possessed by a pencak silat athlete based on the perception of the coach. This survey involved 174 pencak silat trainers in Indonesia from the regional to provincial levels.

There are several dominant physical indicators needed according to the coach, including agility, respondents recommended 88.51% answering necessary to very necessary for a pencak silat athlete.Agility is a physical element that every student must possess in order to perform complex movements. (Oktarifaldi et al., 2019). Having good agility is believed to make it easier for athletes to support technical movements in pencak silat. Furthermore, other indicators are flexibility and endurance which are also recommended by most trainers in Indonesia

(86.78%). Balance shows relationship between coordination and agility. Balance is the main components of coordinative abilities which need for complex sport movements and protection against the injuries(Mohamad Puzi & Choo, 2021). Balance is also a dominant indicator, namely 85.63% of respondents answered that balance is very necessary and contributes. While the indicators of climbing and hanging are considered to be not very contributing to pencak silat, only 25.86% of respondents answered that climbing is necessary and contributing to pencak silat. Furthermore, only 32.76% of respondents answered that they depended on being needed and contributed to pencak silat.

This research is an initial study in building a system to detect the physical abilities of pencak silat athletes. The data obtained in this study will be analyzed involving experts and is an agreement that will later become the basis for researchers to continue research to the next level. The ultimate goal in this research is to create a web-based platform system to detect the talent of pencak silat athletes. As in other sports competed at the Olympics, the experts involved in this research partner are the creators of the European sports talent detection and identification system.

## CONCLUSION

The perspective of a pencak silat trainer regarding the ideal physical ability of a fighter is as follows:

1. The abilities that are needed by a pencak silat athlete are agility, flexibility and endurance.
2. The abilities needed for a pencak silat athlete are core stability, arm strength and speed.
3. The ability that is quite necessary for a pencak silat athlete is the ability to jump.
4. According to the coach, the skills that are not needed for a pencak silat athlete are the ability to hang and jump.

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