

# COACHES' KNOWLEDGE ON LONG TERM ATHLETES DEVELOPMENT FOR LEARNING TO TRAINING AND TRAINING TO TRAINING PHASES IN SOUTH SUMATRA MARTIAL ART (PENCAK SILAT) TRAINING CENTERS

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## Abstract

Coach's knowledge about the concept of long-term athlete development is the key to successful coaching of sports performance. Coaches are the first qualified persons known to prospective athletes, so their presence has a very fundamental role in the achievement development process. This research aims to determine the coaches' knowledge about the concept of long-term athlete development in South Sumatra Province. A questionnaire survey by asking respondents questions related to knowledge about the concept of long-term athlete development in the learning to training and training to training phases was conducted to reach this objective. It was found out that among the 46 respondents, their knowledge level was 21% was high, 30% was medium and 49% was low respectively. The indicators in the learning to training phase are main characteristic exercises with low knowledge (70%), medium (20%) and high (10%); technical knowledge indicators were low (30%), medium (44%) and high (26%); physical training with low knowledge was 60%, medium was 25 %, and high was 15%; while indicators of psychological knowledge were low (70%), medium (22%) high (8%). Next, in the training to training phase, the main training characteristic indicators were 60% was low, 25% was medium, and 15% was high. The technical knowledge indicator was 20% low, 27% was medium, and 53% was high. Physical exercise knowledge were 50% was low, 35% was medium, and 15% was high. Psychological training knowledge were 55% was low, 35% was medium, and 10% was high. While the knowledge on lifestyle were 25% was low, 35% was medium, and 40% was high. The mental and spiritual indicators were 50% was low, 33% was medium, and 17% was high. It was found out weaknesses experienced by the coaches in the indicators of psychological knowledge and knowledge of physical training. The trainer's technical indicators tend to be higher compared to other indicators.

**Keywords:** Knowledge, Coaches, LTAD, *Pencak Silat* (Martial Art).

## INTRODUCTION

"Achievement sports" is a process of coaching and developing athletes in a planned, tiered and sustainable manner through competitions to achieve the highest achievements with the support of sports science and technology (Bompa & Carrera, 2015.) The aim of sports coaching and development is to improve performance in stages according to the level and ability of the athletes, with increasing levels of achievement. The process of implementing the achievement coaching takes a long time and requires seriousness, experience, knowledge of various supporting aspects, and should be carried out through a scientific approach.

Long-term coaching in accordance with the concept often called Long-Term Athlete Development (LTAD) is a guide for developing athletes including physical development and changes in other aspects to achieve sporting achievements (Norris, 2010). Its aim is to organize the development of better sports performance in a recorded and systematic manner. Coaching for popular sports in several countries has implemented this training model, so a long-term coaching model needs to be applied to the sport of "pencak silat" (martial art). This is truly necessary because it is explained

that LTAD is a long-term stage of developing athletes which includes aspects for reaching achievement. The aim is to organize development of sports achievements in a recorded, planned manner according to ability at each stage (Balyi et al., 2013)

Considering the current development of the sport of martial art in South Sumatra, which is increasingly developing over time, the coaching process should follow the progress and development of the current situation. This means that the role of coaches at pencak silat universities in South Sumatra is important in building and developing the initial foundation for coaching achievement. The introduction of movements and the various requirements for performing techniques should follow LTAD development guidelines that regulates training stages according to the age level and individual abilities.

South Sumatra is one of the provinces in Indonesia which has potential for super athletes and international class sports infrastructure (Jakabaring Sport City). However, the reality is that what happens, especially the sport of pencak silat or martial art, has an obstacle that has not yet been discovered and solved. Achievements in Indonesia at national sports week events ranked 10<sup>th</sup> in 2016 and 8<sup>th</sup> in 2021. Looking at this achievement, researchers tried to explore the most basic problem, namely the knowledge of the martial art coaches in South Sumatra. The coaches in martial art training centre have a very basic role in whether their students or athletes can develop or not to face competition in the field of sports achievements (Setyo Erwin, 2015). The coaches are the first qualified persons known to prospective athletes. Psychological closeness between the coaches and prospective athletes can provide confidence that creates a sense of trust in all the abilities possessed by the coach, so it is appropriate for coaches to master the concept of long-term coaching.

Coaches must understand the concept of long-term achievement development. Because the role of the trainer at this level is the foundation for the movements of the pencak silat or martial art athletes. Apart from that, aspects and values of preserving Indonesian culture can be maintained through the legacy of positive values contained in this sport. In this research, the coaches generally, teach children aged of 8 to 16 years old that can be a good time for them to grow up to be professional athletes.

## **Objectives**

Looking at the problems described above, it is necessary to conduct research that can provide idea of how high the level of knowledge of the pencak silat coaches in South Sumatra in order to know what weaknesses need to be addressed to be able to carry out Long-Term Athlete Development in accordance with the concept outlined and relevant theory. Once the results are obtained, they can be used as evaluation material for the understanding of the coaches and training groups in South Sumatra, including training groups at regional student training centers, special sports schools, pencak silat colleges and extra-curricular activities in South Sumatra.

## **METHOD**

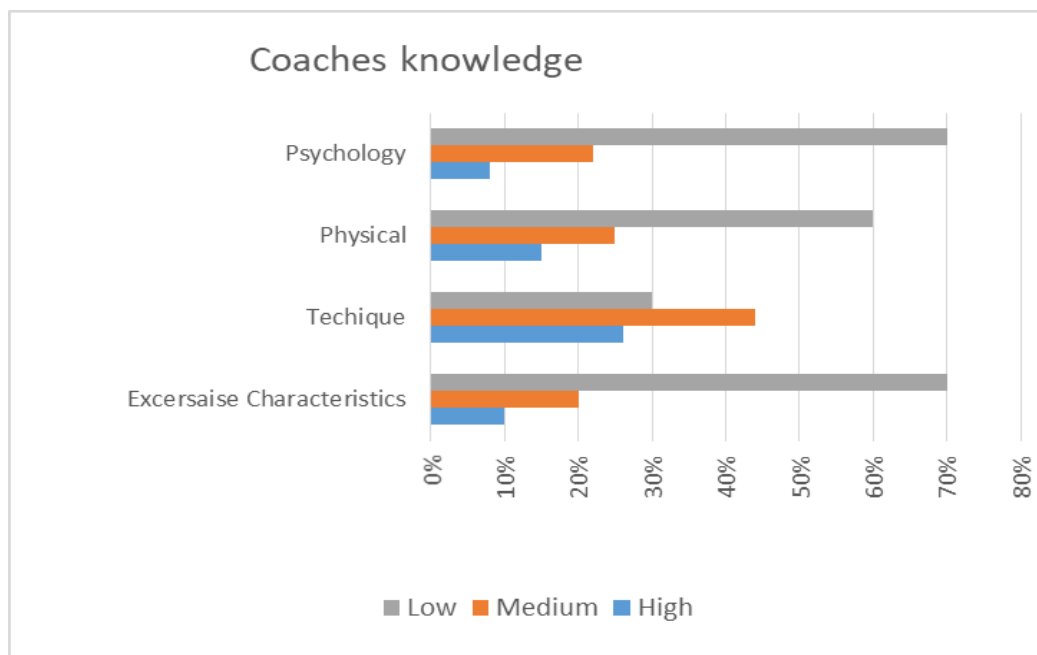
This research used quantitative using a survey approach. (Sugiyono, 2022) explains that surveys are included in the quantitative method, which is a procedure where the researcher gives a questionnaire or scale to a sample to describe the attitudes, opinions, behavior or characteristics of respondents. The sample used was pencak silat college coaches in South Sumatra aged 27 years and over who were taken at random. The total number of the respondents was 46 persons altogether. They

answered the questionnaire with a number of questions related to Long-Term Athlete Development distributed via Google Form.

## RESULTS

### 1. Knowledge on learning to training phase

The respondents' answers regarding the indicators in the learning to training phase can be seen in diagram 1.

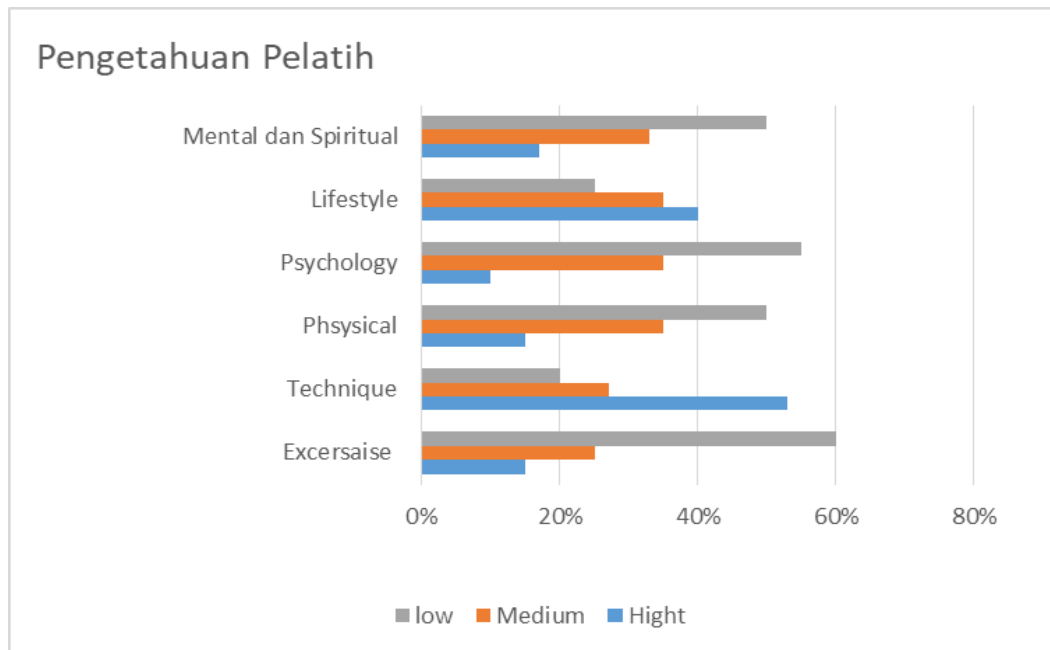


**Diagram 1: Knowledge level on learning to training phase**

Data in the diagram shows that there are several indicators that the coaches in South Sumatra do not yet know, including aspects of training characteristics: 70% was low, 20% was medium, and 10% was high. The respondents' knowledge of technical training was low (30%), medium (44%), and high (26%). Their physical training knowledge was 60% (low), 25% (medium), and 15% (high). While the trainer's psychological knowledge was low (70%), medium (22%), and high (8%).

### 2. Knowledge on training to training phase

The next phase after learning to training is training to training where the training indicators are almost the same as in the previous one. It's just that in this phase there are lifestyle indicators because in this phase the age range of 12-16 years is the child's puberty period. Apart from that, mental and spiritual indicators are included in the subject matter so these indicators are deemed necessary to be able to find out the coaches' specific understanding. As explained by Syaifullah & Doewes (2020) "pencak silat" is a competitive martial sport, which includes mental and spiritual aspects and has the aim of improving physical fitness. Therefore, these indicators need to be included as material for coaches' knowledge in developing long-term achievements. The results can be seen in diagram 2.



**Diagram 2: Knowledge level on training to training phase**

The coaches' knowledge of the main training characteristics in the training to training phase was 60% (low), 25% (medium), and 15% (high). Their knowledge level on technique was 20% low, 27% medium, and 53% high. Their knowledge on physical exercise was 50% low, 35% medium, and 15% high. Their psychological training knowledge level was 55% low, 35% medium, and 10% high. Their knowledge on lifestyle was 25% low, 35% medium, and 40% high. Their knowledge on mental and spiritual aspects was 50% low, 33% medium, and 17% high.

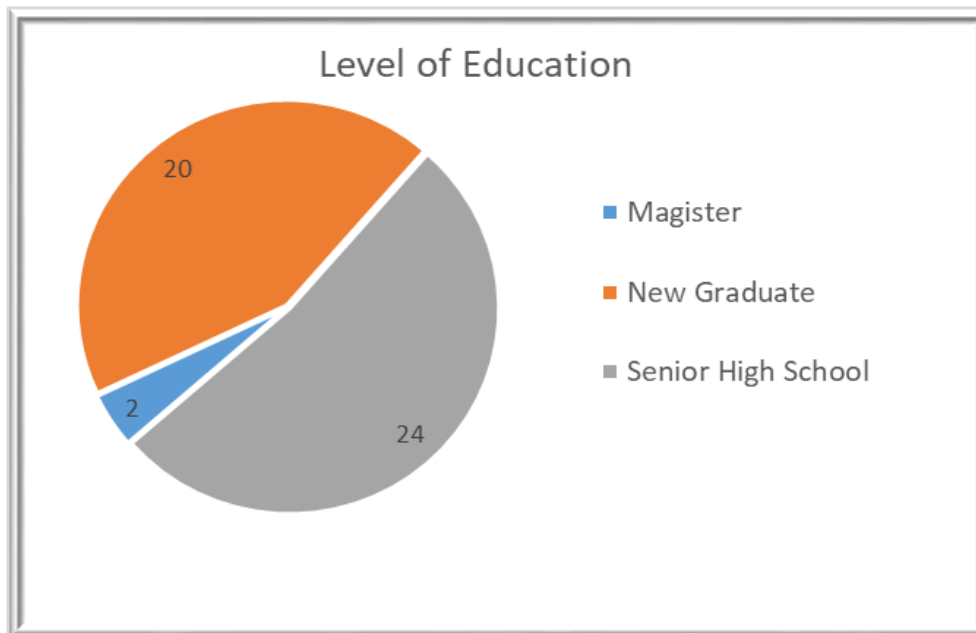
### 3. Knowledge on Long-Term Athlete Development (LTAD).

The results of research using a structured questionnaire with each trainer answering a total of the 50 questions is shown in Table 1.

**Table 1: Knowledge level of the coaches**

Knowledge	Total	%
High	10	21%
Medium	14	30 %
Low	22	49. %
N	46	100 %

The number of respondents was 46 coaches that 21% of them with high knowledge, 30% with medium knowledge and 49% with low knowledge regarding the long-term athlete development knowledge. The influencing factor of this aspect was educational background where not all the coaches have education about sports (refer to diagram 3).



**Diagram 3: The coaches' educational background**

## DISCUSSION

The research findings showed that the level in percentage of the coaches' knowledge in both learning to training and training to training phases, was still relatively low.

Overall, the coaches have duties to carry out the development of the athletes' achievement. The first aspect that must be well-understood by the coaches is the characteristics of the training in each phase.

The research finding on aspects of the training characteristics showed a low percentage level. This means that the main concept in implementing achievement coaching is not yet fully known by the coaches-regarding (what and how) the training priorities achieved. The characteristic aspect of training is related to the trainer's level of understanding of the child's age, movement characteristics, abilities, skills, forms of training, and competition in martial art.

The second aspect is knowledge of technical training. The coaches' knowledge on training techniques tend to be better in all aspects. This is due to the fact that the coaches have mastered the technique before carrying out the training process. However, this knowledge must be supported by knowledge about when and how the technical training is given in each phase to guarantee the systematic training.

The third aspect is the coaches' knowledge on physical exercise which shows a low percentage level. The coaches have to open themselves to scientific guidance in understanding the physical training—to make sure that the physical exercise carried out is in accordance with the stages of the students' movement characteristics, abilities, and appropriate forms of exercise. Because physical exercise has risks that can harm the students when it is done without certain considerations. The impact of physical training errors is injury which will hamper the students' sport career.

The next aspect is psychological as the driving aspect in developing sports performance, especially in martial art. The coaches' knowledge on psychological aspects based on the research finding was at low level (60%). It implied that the

coaches have to evaluate their psychological knowledge. It was found out that psychology is the aspect that was rarely learnt by the coaches.

The journey of developing long-term sporting achievements, especially martial art, does not necessarily shape the students into champions in the future. Persilat (2021) explained that martial art can shape a person's character and identity. Therefore, in long-term coaching, personality aspects must be prioritized which can be formed through lifestyle and spiritual mental patterns as the main characteristic of martial art sport.

Knowledge on lifestyle and mental-spiritual aspects is an important part in forming persons who have good personalities in the future including being close to God the Almighty and knowing the life's rules and teachings based on their religion and beliefs.

Exercises in the learning to training and training to training phases must refer to scientific theoretical concepts. The research findings by Iswana & Siswantoyo (2013) related to the training models for ages 9-12 students produced training models that are adapted to age and the characteristics of the game in martial art. In other words, any training in sport must be appropriate to the students's age and ability.

In relation to martial art technique training, Hariono (2017) stated the martial art technique training consists of kicks, punches and falls. In this case, the coaches have to understand the concept of each stage. Lloyd et al., (2012) explains that the correct movement pattern technique in sports can be mastered properly starting from early childhood so that when the child performs complex movements, they will not experience difficulties and can apply effective and efficient movements. This means that the instillation of motor movements is given according to age level and adapts to the movement needs. Looking at that theory, it is mandatory for a trainer to understand how important is knowledge on the technical training given to his/her students.

Next, coaches need to improve their knowledge by reading several scientific books and journals related to long-term achievement development, such as *National Coaching Certification Program NCCP* (2008) which produces a guide to long-term athlete development for Taekwondo in Canada, so that training can be carried out well based on the training concept. Awan & Lubis (2022) have produced a guide on long-term athlete development in martial art sport as a material to increase the knowledge of coaches in South Sumatra

Ford et al., (2011) explains that physical development carried out at childhood will greatly influence the students' performance when they as athletes reach maturity. This theory emphasizes the importance of physical exercise for children between these two phases. If it is done properly, it will have positive impact on the children' abilities. Therefore, the findings in this research on the knowledge aspect of physical training are as important notes for coaches if they want rapid progress for their students.

The psychological aspect of martial art sport is very important to master both by the coaches and students because martial art is a sport that involves body and soul as Putra (2018) stated that martial art reflects the culture and behavior of Indonesian people and has spiritual and mental aspects. Different from other martial arts sports, pencak silat has a treasure attached to a trainer. Therefore, it is necessary for the coaches to enrich and develop their teaching skills through several activities.

## CONCLUSION

Low knowledge level of several important aspects in achievement development is a reflection of the achievements among the coaches in South Sumatra.

Coaches or coaches is one of the keys to success in the long-term development of the martial art (pencak silat) for the best athlete's career and achievement in any competition. Therefore, the coaches must have good or high level of knowledge for successful long-term sport coaching process.

This research suggests continuous professional development program for the pencak silat or martial art coaches so that their knowledge and skills in teaching and guiding their students would be more effective.

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