



## **Training Model to Increase a Kick Speed in Pencak Silat Athletes 15-17 Years Age in Sanga Village District**

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### **Abstract**

Straight kicks are often used to gain points when facing each other. To perform a good straight kick, there is an element of physical condition needed to carry out this movement to support the execution of the movement properly and correctly. The aim of this research was to increase the speed of A pencak silat kicks in athletes aged 15-17 years in Sanga Village. This research method uses the development of the ADDIE model using 5 stages, namely analysis, design, development, implementation and evaluation (ADDIE). The research subjects consisted of 30 athletes. The research instrument used an assessment scale by 3 experts, namely pencak silat experts, movement experts and martial arts experts. The results of the research using the expert validation test Content Validity Index (CVI) and Content Validity Ratio (CVR) on the Kick Training Model A with an average CVR value of -0.05 means that the training model to increase the speed of kick A in pencak silat has validity high so that the A pencak silat kick training model is safe to use, according to the characteristics of athletes aged 15-17 years.



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## INTRODUCTION

Sports are inherently competitive from beginner to professional levels. Competitions for young athletes are regularly held by sports federations at both national and international levels, starting from ages under 13 to under 21.(Sari et al., 2022),Based on Exercise is a systematic sequence of structured and planned exercises that are repeated and the amount of exercise increases from day to day(Gmbh, 2016), Training is the process of repeating physical activity or work properly and correctly to improve the achievement of optimal performance in order to achieve the highest performance(Purnomo, 2021), exercise is an activity carried out repeatedly with a purpose(ODE, 2020)then the athlete is guided by the coach to achieve certain goals. In achieving high performance, every athlete must follow the training provided by the coach because the coach plays a big role in athletes who excel.

Training is a systematic sports activity over a long period of time that is progressively and individually aimed at forming human physiological and psychological functions to fulfill task requirements. A training must be able to produce an increase in skills, strength and energy systems used in the sport in question in order to achieve a maximum level of performance(Bernabas Wani, 2018). Physicality is the foundation of sporting achievement because technique, tactics and mentality can be developed well if you have good physical qualities. An athlete will develop his skills from basic techniques to more advanced techniques if he has sufficient physical strength (Zhannisa & Sugiyanto, 2015). Training is the main substance discussed in coaching science which discusses people who train (as an object) about training (as a process and sports

achievements (as a result of the process) which are then competed/contested. According to Law Number 11 of 2022, Article 1 Paragraph 1 concerning Sports states that sports are all activities that involve the mind, body and soul in an integrated and systematic manner to encourage the development and development of physical, spiritual, social and cultural potential (Amali, 2022).

Pencak silat is an Indonesian culture that has existed since prehistoric times with different names and styles(Rino Lusiyono Lucius & Daryanto, 2022). In pencak silat martial arts competitions, the techniques used in the sparring category are punches, kicks, parries, catches and falls. Straight kicks are often used to gain points when facing off. To perform a good straight kick, there is an element of physical condition needed to carry out the movement to support the execution of the movement properly and correctly.(Gustama et al., 2021).

The front kick (A kick) is a kick that uses the tip of the foot in a straight forward trajectory with the body facing forward and the target is the solar plexus or back.(Anas & Adi, 2018), the kick will be scored in the match when it hits the specified target or target. In order to increase the speed of kicking A because speed in kicking is one of the most important factors to support success in doing it. Thus, special training is needed for athletes to increase the level of speed in kicks(Pratiwi et al., 2018). The development of the A kick training model for adolescent athletes aged 15-17 years will provide a training model that is appropriate to the characteristics of athletes aged 15-17 years. During adolescence, children begin to be active and have complete energy. Adolescents are looking for a lifestyle that is most suitable for them and even this often done through the trial and error method

even though sometimes there are many mistakes (Pohan et al., 2022). One of the attitudes inherent in teenagers is that they want to be recognized or better known as their existence (Muhajir & Kurnia, 2023). It is hoped that this training model will produce an exercise that can help athletes to have more correct A-kick movements when training or competing, and to add variety to training. With this development model, it is hoped that there will be more interesting silat kick activities and provide more motivation for pencak silat sports.

Defend with various variations of kicking techniques, apart from that the kicking technique is the most effective technique for getting points during the match. During the pencak silat match, we can see this in every existing pencak silat match. When carrying out attacks using pencak silat kick techniques, there are several factors that determine success, including the speed and strength of the kick. One of the important elements in pencak silat is kick speed. Speed is very necessary and can influence a person's performance both when attacking and defending (Ihsan et al., 2018). Apart from the two factors above, training intensity, balance and maturity of movements also influence the success of every attack directed at an opponent in a match (Lucius & Daryanto, 2022).

In pencak silat sparring, techniques in an effort to achieve maximum results can use punches, kicks, as well as welcoming, cutting or falling techniques accompanied by catches (Ihsan, 2018). Pencak silat is a traditional martial art native to Indonesia which is starting to become widely known in Indonesia, even starting to spread to neighboring Malay countries (Mufarriq, 2021). Because at that time humans faced harsh nature with the aim of maintaining survival by fighting vicious animals and hunting,

which ultimately resulted in humans developing self-defense movements (Hausal et al., 2018), pencak silat is a sport that is quite complete to study because it has four aspects which form a complete whole and cannot be separated, namely the spiritual aspect, the martial aspect, the sports aspect and the arts and culture aspect (Sutopo & Misno, 2020). In the context of education, as part of local wisdom, preserving the culture of pencak silat arts has an impact on the formation of mental and physical health, spiritual strengthening and character formation of students (Ilham et al., 2023).

### Model 1 Equipment-Free Training (LTA)

The model developed in this research is the training model "Model 1 Training Without Equipment". In this training model, the researcher provides a training model without using equipment first so that it is easy for athletes to carry out the movements of the first stage of the training model, with the following stages:

1. 10 kicks, 1 step each.
2. During the exercise you will be given 3 sets of repetitions.
3. Each set is given a 2 minute rest time.
4. The intensity of training is adjusted to the abilities of each athlete.



**Picture. 1** LTA training model type a

In training, it is hoped that the results of the analysis will provide solutions regarding the current needs of

pencak silat athletes. So it is hoped that this training model can enter the realm of pencak silat kick training which implies athletes as training subjects so that the training process runs effectively, efficiently and has an interest in the training process.

The benefit of this research is that it is hoped that this research will contribute to training in kicking techniques in the sport of pencak silat. The uses of the results of this research include:

1. For trainers  
As a reference for trainers regarding kick training models for teenage pencak silat athletes.
2. For physical education teachers  
It is hoped that the results of this research can expand knowledge in teaching and learning methods, especially in pencak silat material.
3. For IPSI administrators in Musi Banyuasin district  
Can be used as a reference and point of reference for pencak silat trainers in developing their athletes. So that they can improve kick training in order to achieve improved performance.
4. For study programs  
As a contribution to research thinking in the field of education, especially the subjects of physical education, sports and health.

## METHOD

Development research is an effort to develop and produce a product in the form of materials, media, tools or learning strategies, which are used to address learning in the classroom or laboratory and not to test theories. (Purnomo, 2021). Development research, usually called balance-based research, is research that aims to solve practical problems. The research model

used is the ADDIE research and development model (Analysis, Design, Development, Implementation, Evaluation) which is a model which represents the stages in a systematic (organized) and systematic manner in use aimed at achieving the desired results. The main objective of this development model is to design and balance an effective and efficient product (Personal, 2016).

The research subjects for the small-scale trials were 10 athletes aged 16-17 years and the subjects for the large-scale trial research were 20 athletes aged 15-17 years. This research involved 3 experts, namely, 1 pencak silat expert (lecturer), 1 pencak silat trainer, 1 pencak silat trainer. Expert validation test results using Content Validity Index (CVI) and Content Validity Ratio (CVR). To see whether the training model is worth testing in the field.

## RESULTS

The results of the research using the expert validation test Content Validity Index (CVI) and Content Validity Ratio (CVR) on the Kick Training Model A with an average CVR value of -0.05 means that the training model to increase the speed of kick A in pencak silat has validity high so that the A pencak silat kick training model is safe to use, according to the characteristics of athletes aged 15-17 years.

No	E1	E2	E3	Ne	N	N/2	No-(T/2)	Cvr	Criteria
1	3	3	3	3	4	2	1	-1	V
2	3	3	3	3	4	2	1	-1	V
3	3	4	2	1	4	2	-1	-0.5	V
4	3	3	3	3	4	2	1	-1	V
5	3	2	3	2	4	2	0	0	V
6	2	3	3	2	4	2	0	0	V
7	3	4	3	1	4	2	-1	-0.5	V
8	3	3	4	1	4	2	-1	-0.5	V
9	3	4	4	2	4	2	0	0	V
10	3	4	3	1	4	2	-1	-0.5	V
Total	29	33	31			Total		-5	
Average	2.9	3.3	3.1			Average		-0.5	legitimate
average		3.1							

Based on the results of the analysis using CVI and CVR, the kick training model A obtained an average of -0.5 or valid, which means that the kick training model A has aspects that are safe to use, including; The movements provided are quite easy for athletes to understand, and this training model can increase athletes' enthusiasm to continue training.

## DISCUSSION

Based on the results of the CVI and CVR analysis, kick training model A was declared valid and met product standards. From the results of research and expert validation, it is known that the product developed for the A kick training model is suitable for use by athletes aged 15-17 years. Declared valid and meets product standards. From the results of research and expert validation, it is known that the product developed for the kick training model A is suitable for use by athletes aged 15-17 years. The training model is a technique used by trainers in presenting training material by formulating the law of association, that experience or memory of one object tends to give rise to memories of things similar to that object. Furthermore, he explained that Aristotle considered sense impressions to be the basis of all knowledge (Iswana & Siswantoyo, 2013)

Apart from that, kick training model A has several advantages that can improve an athlete's ability in performing kicking movements A. Speed is one of the basic biomotor components which is very important in every sport. Every sporting activity that is a game, competition or competition always requires speed components. Likewise, kick speed in pencak silat can be achieved through programmed and intensive training(Hayati & Endriani, 2021)

Based on the effectiveness test, it shows that there was an "increase" in A's kick speed after the training model was implemented. It can be concluded that the development of a training model to increase the speed of the A kick is "effective" for use in pencak silat training, and the A kick training model can increase the A kick speed of athletes aged 15-17 years so that it is suitable for use in pencak silat training.The training model to increase kick speed A has good value so it is safe to use.

## CONCLUSION

Based on expert validation analysis. Training model to increase kick speed A can increase kick speed, increase athletes' enthusiasm and interest in continuing to practice, so this training model is recommended to be applied to athletes as a reference for

training.

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