

**Pencak Silat Knockdown Anticipation Training Model for Student Athletes****Widiastuti, Eko Novian Saputro***

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Introduction: This study aims to improve the skills of anticipation of pull drops in pencak silat athletes in the competition category. The research was carried out from March to May 2025 at the Jakarta State University Sports Hall. The study was attended by DKI Jakarta student pencak silat athletes in the competition category. The lack of good knockdown anticipation techniques can result in injuries for athletes. **Objectives:** The dropping technique combined with a pull is regarded as highly effective for scoring points and securing victory in matches. Similarly, the fall anticipation technique using a pull is seen as a strategic approach to enhance an athlete's ability to respond to falls. Based on this, implementing a training model focused on fall anticipation with pull is deemed suitable for improving athletes' preparedness. Mastery of these anticipation techniques not only contributes to performance but also plays a crucial role in reducing the risk of injury. Therefore, innovative solutions and updates are needed to address the challenges outlined, ensuring the training process operates at its highest potential. **Method:** The research methodology employed Research & Development approach using the ADDIE model, conducted at GOR UNJ, DKI Jakarta, during March-May 2025. The research subjects consisted of 30 pencak silat athletes PPLM DKI Jakarta in fight category. The instrument used is a test of pull fall anticipation skills that has been validated by pencak silat experts and experts. Based on the initial test data of the ability to anticipate dropping. Data analysis using SPSS to process the effectiveness results of the pre-test and post-test. **Result:** The research results demonstrated significant improvement from the pre-test average success rate of 3.1333 was obtained. Then after being given the material on the fall anticipation training model, the final test was carried out with an average success rate of 8.7333. There is an increase in the success rate. **Conclusion:** The developed training model proved to be feasible and effective for enhancing skills anticipation of pull drops in pencak silat, providing valuable insights for martial arts training methodologies and competitive performance improvement.

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INTRODUCTION

Pencak silat is the result of Indonesian human culture to defend and maintain its existence and integrity to the environment and surrounding nature to achieve harmony in life to increase faith and piety to God Almighty (Wati et al., 2024). Pencak silat is also a martial sport that is considered to have many benefits (Dongoran et al., 2020). Pencak silat requires basic techniques to be used, not only as a form of self-defense, but also used in athletes to develop achievements (Ahmad et al., 2024). Pencak silat is not only a martial art, but pencak silat is also one of the sports that has the potential to improve the physical, mental and spiritual fitness of the community (Ambarwati et al., 2024). Pencak silat is not only a trend among adults, but pencak silat is also popular among teenagers and children (Ambarwati et al., 2024).

In pencak silat competitions, there are several categories, competition categories and art categories (Hariono et al., 2024). In Indonesia itself, many matches are often held, both leveled and open, as well as in each region also often hold matches, both in terms of timing and achievement (Jamal et al., 2024). This makes pencak silat grow rapidly (Mardinus et al., 2025). The introduction of pencak silat martial arts can be given by learning basic techniques which include pencak silat movement skills (1) Horses, (2) Pair attitudes, (3) Steps, (4) Defense techniques, (5) Attack techniques, (6) Damping, (7) Dropping techniques, (8) Catching techniques, (9) Slamming techniques, (10) Basic techniques of resistance to slamming (Mardius et al., 2024). In accordance with the 2022 pencak silat competition rule book which explains that hand strikes are worth 1 (one), foot strikes (kicks) are worth 2 (two), and falls (slams, cuts, sweeps) are worth 3 (three) (Mukholid et al., 2024). Because of this explanation, dropping is one of the techniques that gets the highest score (Mu-zakki et al., 2023). However, in reality, from several research sources, the percentage of the use of the fall technique (slam) is still rarely successful (A. Nugroho et al., 2024). As per the research at championship, the fall with a successful catch of only 25% of the 154 attempts in the match (Karo-Karo et al., 2023). The next research related to the fall was carried out qualifying round match which focused on athletes competing in the pencak silat competi-tion, which was more specific to the fall technique using cuttings with results, the success of the cutting technique was 58 or 40.85% while those who failed to produce 84 or 59.15% points (Hardovi et al., 2025).

From the above data, the researcher wants to improve the ability of the fall technique to get points or points in the match (Ilahi et al., 2023). The significant difference from the previous regulations related to the fall is the permissible pulling, which in the previous regulations was a violation in the latest regulations is allowed (Hasibuan et al., 2024). One of the anticipations of opponents who use the drop technique is to use cuts (Muhammad et al., 2020). The step that will be taken is to create an exercise program in anticipation of the fall of the pull using cutouts (Bafirman et al., 2023). In the old rules, the percentage of points was obtained more from kicks and punches, but after the enactment of the new rules the

percentage of the percentage of drops to get points slowly began to increase (Dimiyati et al., 2020).

The results of observations made by the researcher on several match training activities between the DKI Jakarta pencak silat team with the Indonesian National Team and also the Cambodian National Team, the technique of falling with a pull is considered very effective to get scores and win the match, as well as the anticipation of the technique of falling with a pull, departing from this the use of the technique of anticipating the fall of the pull is felt to improve the ability to anticipate the fall of an athlete. Judging from several matches that use the new 2022 rules, there are several pulls drop techniques that are often used, one of which is the back pull drop technique. This pull drop technique became the center of attention and spread widely quickly, one of which was after being used by one of the Pelatnas athletes during the National Selection and Sea Games. Many athletes follow the technique and often manage to earn points when used.

There needs to be a solution, renewal in solving the problems mentioned above, so that the training process can run optimally. The researcher wants to create a training pro-gram to anticipate the fall of the pencak silat pull using cutouts with the stages of training starting from doing the division movement seen from the fall technique, the pull technique and also the anticipation technique. Based on the background of the above problem, re-searchers want to improve the skills of anticipating pull falls using cutouts. It is hoped that this research can increase the ability of athletes to obtain fall values by anticipating pull falls using cutouts so that we can anticipate the opponent's fall and the fall value becomes ours and also help athletes to more quickly master the skills of anticipating pull falls using cutouts. Because in the training process, an exercise program will be given to improve the skill of anticipating pull falls using cuts. Athletes can also apply it during field practice and also become a provision when becoming a coach.

Previous research has focused more on improving dropping techniques, while this study discusses how to anticipate dropping techniques and pro-vides understanding regarding the concept of anticipation to athletes so that they can maximize the potential of silat athletes.

METHOD

This research uses research and development with the ADDIE method, namely analysis, design, development, implementation, and evaluation. In this study, the purpose is to create a training model and to determine the effectiveness of the training model of the skill anticipating dropping in pencak silat athletes.

Analysis is the process of identifying and interpreting what will be given to athletes based on the problems that exist on the field. By analyzing needs, identifying problems and analyzing them.

Design is to start making a design of the goal formulation to be carried out, then compile the product, based on the previously formulated goals. The next step is to de-scribe the design of the product with the necessary elements.

Development, in this stage the researcher makes things that have been prepared to be implemented. In this step, a modification procedure will be carried out related to the process of checking the model to the relevant experts. Expert checks are needed to get justification that the model made by the researcher is suitable and appropriate to continue at the implementation stage. Things that need to be revised are at this stage.

Implementation is the stage where the researcher implements all products that have been designed according to the first stage to the development stage. Namely as many as 8 meetings of 30 samples, in the first meeting the researcher took initial data referring to the instrument that had been validated, in meetings 2 to 7 were given treatment and in the 8th meeting the final data (post-test) was taken.

Evaluation, this stage is a process to see the product results whether the ad-vantages or disadvantages of the product looking at the product results. whether the ad-vantages or disadvantages of the products produced. The results of this stage are used as a basis to improve the shortcomings in the products that have been made.

RESULT AND DISCUSSION

Result

The following will be presented data on the results of the needs analysis in the field in the form of distributing a questionnaire containing 4 questions to 15 respondents including coaches, referees and athletes on the understanding of the new regulation material related to pencak silat tug-of-war skills.

Table 1. Problem Identification Data

Requirements Analysis	Findings in the Field
Results of filling out the questionnaire	The coach does not yet have a model guide for the practice model of anticipating dropping technique of the competition category based on the latest regulations.
	Coaches and athletes revealed that the analysis of the knockout technique model of the competition category based on the latest regulations is very important and useful.
	Engaging video elements should be included in the delivery of the training program.
	Obstacles to coaches in delivering material lack of references and variations in programs and training models so that athletes are not optimal in practicing training models.

After conducting a preliminary study in the form of a literature study and needs analysis, a draft model to be used is made. Forms of training models, training models, pencak silat anticipating dropping techniques, competition categories, as many as 23 model items.

The researcher presented 3 expert expertise in model feasibility research as follows: material experts, lecture pencak silat experts and national coach pencak silat.

Table 2. Expert Validation Results

Expert	Number of Suitable Models	Percentage	Category
Material experts	23	100%	Suitabel
Lecture pencak silat	23	100%	Suitabel
National coach pencak silat	23	100%	Suitabel

The conclusions of the expert tests carried out are summarized in Table 2. The following:

Table 3. Expert Validation

Classification	Suggestions/ Comments
Model dropping anticipation training with pre-pull pulls	
Anticipate the pull of the opponent by avoiding the grip of the opponent's hand.	Eligible/Valid
Anticipate the opponent's pull by deflecting the opponent's hand at the moment of cupping.	Eligible/Valid
Anticipate the opponent's pull by countering the front kick.	Eligible/Valid
Anticipate the opponent's pull by countering the crescent kick.	Eligible/Valid
Anticipate the opponent's pull by countering the side kick.	Eligible/Valid
Anticipate the opponent's pull by performing a punch.	Eligible/Valid
Dropping anticipation training model with a pull when already in the grip	
Anticipate the dropping of the pull with a parry to release the opponent's grip.	Eligible/Valid
Anticipate the dropping of the pull by turning your body outwards so that the grip can be released.	Eligible/Valid
Anticipate the dropping of the pull by turning the body inside out so that the grip can be released.	Eligible/Valid
Anticipate the dropping by lowering your stance and gripping your opponent with your hands.	Eligible/Valid
Anticipate the dropping by pushing and pulling against the opponent's shoulder.	Eligible/Valid
Dropping anticipation training model with pulling during the dropping process	
Anticipate the dropping of the pull by following the direction of the opponent's pull and the foot maintains the stance.	Eligible/Valid
Anticipate the dropping of the pull by holding your opponent back from falling and stance your feet.	Eligible/Valid
Anticipate the dropping by keeping your opponent down and your body against the mat.	Eligible/Valid
Anticipate the dropping of the pull by keeping your feet out of your opponent's reach.	Eligible/Valid
Dropping anticipation training model with a pull at the time of the cutout	
Anticipate the dropping of the pull by releasing one foot from the opponent's scissors and maintain your position to avoid falling.	Eligible/Valid

Anticipate the dropping by holding your opponent's legs with your hands. Eligible/Valid

Dropping anticipation training model with a pull during a kick

Anticipate the dropping of the front kick pull by performing a cutout. Eligible/Valid

Anticipate the dropping of a crescent kick pull by performing a cutout. Eligible/Valid

Anticipate the dropping of a side kick pull by performing a cutout. Eligible/Valid

Anticipate the dropping of the front kick pull by holding the body from falling forwards and lowering the stance. Eligible/Valid

Anticipate the dropping of the crescent kick pull by holding the body from falling forwards and lowering the stance. Eligible/Valid

Anticipate the dropping of the side kick pull by holding the body from falling forwards and lowering the stance. Eligible/Valid

After doing a pre-test, then give treatment and also take the final data (post-test). There is an improvement before treatment and after treatment.

Table 4. Pre-Test and Post-Test results of skill test dropping anticipating

Teste	Pre-Test	Post-Test
X1	4	8
X2	2	8
X3	2	9
X4	2	10
X5	3	9
X6	6	9
X7	5	8
X8	2	9
X9	2	9
X10	5	10
X11	2	8
X12	2	8
X13	4	8
X14	3	8
X15	3	10
X16	2	9
X17	2	8
X18	5	10
X19	5	8
X20	2	10
X21	4	8
X22	2	9
X23	3	10
X24	4	8
X25	2	9
X26	3	9
X27	2	8
X28	6	9
X29	2	8
X30	3	8
Amount	94	262

Table 5. Paired Samples Statistics

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Test	3.1333	30	1.33218	.24322
	Post Test	8.7333	30	.78492	.14331

The table above shows the skill test of anticipation of pull drops in the pre-test and post test conducted by DKI Jakarta student athletes. Pre-test was carried out before the application of 23 items of the pull fall anticipation skill training model and the post-test was carried out after being treated with various variations of the pull fall anticipation skill training model as many as 23 model items that have been validated and evaluated.

This test is done to find out before and after being given treatment. After the average pre-test was 3.1333, the data was taken back in the post test and had an average of 8.7333. Based on the description above, there is a difference in results between pre-test and post-test, so it can be concluded based on the table above that the developed pull fall anticipation exercise is effective and can increase the anticipation of pull fall for adult level pencak silat athletes.

Table 6. Paired Samples Correlations

		Paired Samples Correlations		
		N	Correlation	Sig.
Pair 1	Pre Test & Post Test	30	.035	.854

Based on the results of the table above, the correlation coefficient of training before and after being given the pull drop anticipation training model was 0.035 with a p value of 0.00 < 0.05, so the conclusion is signifiabile.

Table 7. Paired Samples Test

		Paired Samples Test						
		Paired Differences						
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df
					Lower	Upper		
Pair 1	Pre Test - Post Test	-5.60000	1.52225	.27792	-6.16842	-5.03158	-20.149	29
								Sig. (2-tailed)
								.000

In the significance test of the difference with SPSS 25, the results of t-count = 20.149 df = 29 and p-value = 0.00 < 0.05, which means that there is a significant difference in the skill test of anticipation of pull fall in DKI Jakarta student pencak silat athletes before and after the treatment of the pencak silat pull anticipation skill training model. Based on this information, it can be said that the developed pencak silat pull anticipation skills training model can effectively improve the skills of anticipatory pull fall skills of DKI Jakara student pencak silat athletes.

Discussion

The rules and techniques used in the beginner age group are different from the adolescent and adult age groups (Syarif et al., 2020). In the beginner class, athletes compete using basic techniques such as strikes with the hands and strikes with the feet (Umar et al., 2024). Meanwhile, in adolescence and adulthood, athletes can already use high-level techniques such as the falling technique (Irawan et al., 2021). The dropping technique is a defensive effort carried out by knocking down the opponent through catches, sweeps, and cuts (H. Nugroho et al., 2024). The percentage of the types of techniques used by silat fighters in order is as follows: kick technique 44 %; stroke technique 33 %; the fall technique with a catch of 14 %; 5% drop technique; kicking technique with a defense of 3 %; Stroke technique with 1 % defense (H. Nugroho & Doewes, 2025). The results of another study revealed that the average use of techniques in all competitive classes in the 2017 National Student Sports Week: Punch (14.52%), Crescent Kick (26.66%), Front Kick (14.16%), Side Kick (12.07%), Back Kick (0.37%), Slam (9.55%), Cut (9.97%), Sweep (1.00%), Active Block (4.39%), Passive Block (3.11%), Back Dodge (1.31%), Right Side Dodge (1.60%) and Left Side Dodge (1.30%) (Wahyudi et al., 2024).

After conducting a Preliminary Study in the form of a literature study and needs analysis, a draft model to be used was made. The form of the training model anticipates the fall of the competition category as many as 23 model items. This research focuses on the development of a model to train fall anticipation techniques, so the approach and method used in this study are Research and Development (R&D) methods using the ADDIE model. The selection of ADDIE development research models, paying attention to descriptive, structured, detailed, and easy-to-understand research procedures.

The training model developed is an anticipation dropping training model for pencak silat. In pencak silat, training related to anticipation is rarely conducted, even though this anticipation plays an important role in the success of athletes in executing dropping techniques. Many athletes do not yet understand the concept of anticipation, so they often respond late to attacks from their opponents.

In this study, a model of anticipation training for dropping was created from before being caught, after being caught, during being thrown, and after being thrown. This way, athletes can understand each process of dropping during a pencak silat catch along with the anticipation and also minimize injuries that may occur.

CONCLUSION

Based on the figures in the table above, it can be concluded that the model of the training of the skills of anticipation of the fall of the pull in pencak silat athletes can and should be used in club training and is effective in improving the skills of anticipation of the fall of the pull in athletes (Ilham et al., 2025).

There is a comparison of the results obtained from the initial test and the final test has developed, from the initial test before being given treatment 3.1333 then treatment is given in the form of a training model anticipating the fall of the pencak silat pull that has been developed then a final test is carried out to determine the effectiveness of the developed model, and data of 8.7333 is obtained, so that the training model of the pencak silat pull anticipation skills is effective in improving the skills of anticipating falls attraction to DKI Jakarta student pencak silat athletes.

This research still has limitations for use by athletes of martial arts clubs because it requires an understanding of the basic concepts of anticipation first. The hope is that future research can develop an anticipation falling training model that is easier to learn for junior athletes or athletes of martial arts clubs.

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