

Modification of The Front Kick Accuracy for Pencak Silat Novice Athletes

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Abstract. The purpose of this study was to create a media for front kick accuracy in Pencak silat athletes. This type of this study is research and development (R&D) with descriptive data analysis techniques using percentages. The instrument used was a questionnaire. The result of this research is a modified front kick precision tool. This study found that the expert validation data is 98.75% in the "Very Good" category. The overall small trial data is 80% in the "Good" category. In the extensive trial, the overall was 88% in the "Very Good" category. The conclusion of the front kick product assessment tool is particularly Good for front kick accuracy training for beginner and professional athletes. In further research, it is necessary to develop the material for the tool.

Key words: Pencak Silat, Front Kick, Precision

Abstract in Indonesia. Pencak silat merupakan peninggalan leluhur yang harus tetap dilestarikan, peralatan pencak silat untuk tendangan depan belum diproduksi sehingga alat untuk tendangan depan tidak terjangkau di khalayak umum. Maka dari itu peneliti ingin menciptakan sebuah alat ketepatan tendangan depan pencak silat dimana alat tersebut dapat menunjang atlet pemula agar tendangannya lebih terarah ke target. Jenis penelitian ini adalah penelitian Pengembangan atau research and development (R&D) dengan teknik analisis data deskriptif dengan menggunakan presentase. Hasil dari penelitian ini adalah sebuah produk modifikasi alat ketepatan tendangan depan. Secara keseluruhan data validasi ahli sebanyak 98,75% dalam kategori "Sangat Baik" Data ujicoba kecil secara keseluruhan adalah 80% dalam kategori "Baik". Sedangkan dalam ujicoba besar secara keseluruhan adalah 88% dalam kategori "Sangat Baik". Kesimpulan penilaian produk alat ketepatan tendangan depan adalah sangat baik untuk latihan ketepatan tendangan depan untuk atlet pemula maupun profesional. Dalam penelitian selanjutnya perlu adanya pengembangan terhadap bahan alat.

Kata Kunci: Olahraga Pencak Silat, Modifikasi Alat Ketepatan Tendangan Depan

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INTRODUCTION

Martial arts of the past Pencak silat is an ancestral relic that must be preserved because it has an important role, namely as a regional identity that can unite and show the identity of tribes and regions (Hadjarati, 2018). Martial arts require balance, strength, agility, and precision. The front kick technique is a kick that is done by lifting one of the legs, either the left foot or the right foot, then kicking with the foot position straight forward with the toes facing up with the pounding of the sole parallel to the shoulder with the target of the solar plexus (T. Suryadin et al., 2021). In some martial arts matches, there are some athletes whose kick accuracy does not hit the target. In some cases, those whose kick target hits the pubic because the front kick is too low. There is also a front kick hitting the opponent's face

because the front kick is too upwards. The author observed during the Paku Bumi Open 4th, held on February 2-4, 2018, at GOR Padjajaran Bandung, that athletes in the student and adult classes still launched many attacks that were not on target and did not get grades.

The cause of the occurrence of kicks that are not on target is the absence of special methods to increase the accuracy of the front kick. It is necessary to have a tool as a front kick exercise so that the athlete's front kick leads to a predetermined target. If the front kick hits the target, the athlete will get points and vice versa. If the front kick hits the pubic or the opponent's face, the athlete will get a deduction in value. In Iskandar (2016) on developing GUI-based karate athlete kick height measuring instruments to

Table 1. Questionnaire for Respondents

No.	Assessed aspects	Score				
		1	2	3	4	5
Aspects of Comfort						
1.	Product Comfort					
2.	Reducing the Risk of Injury When Using FKA					
3.	Easy-to-use products					
4.	Product Safety					
5.	Kick Height Can Be Changed As Needed					
Aspects of Use						
6.	Lightweight Products					
7.	Easy to carry products					
8.	Products Are Not Easily Broken					
9.	High Suitability of Products					
10.	Product Attractiveness					
11.	Products Suitable for Front-Kick Precision Training					

assess karate courses at FIK UNY, The tool is suitable for use as a height measuring device because it can inform the measurement results, but the drawback is the absence of a kick strength pressure indicator. Ihsan, Yulkifli, & Yohandri (2018) discuss the development of random flip-flop-based reaction samsak in martial arts. It discusses training the reaction speed of kicks and punches (Liskustyawati et al., 2019; Wardoyo, 2017). The results of this study are perfect for training reactions to kick and punch speed, but in using this tool, one must use hand safety such as gloves and foot decker so as not to get sick. Training activities using these tools will able to improve and improve the ability of the martial arts front kick (Suryadin & Radiko, 2020). This study aimed to create a media for front kick accuracy in Pencak silat athletes.

METHODS

A research site is used for empirical trials or assessments of the development of front-kick precision tools. This study uses research and development methods, often called Research and Development (R&D). Research and development research is a method used to produce specific products and test their effectiveness of these products (Pangesti, 2019). This development research will produce a product in the form of a front kick accuracy tool for novice athletes in the martial arts sport named the front kick accuracy tool. The GOR of Prof. Soegijono, the Gunungpati District, Semarang City, and the Courtyard of the Great Mosque in Semarang City served as testing grounds for the creation of this front kick accuracy tool.

This research instrument is divided into 3 parts to evaluate the products made, namely: (1) feasibility test instruments by experts or martial arts material experts; (2) test instruments by experts in martial arts facilities and infrastructure; and (3) small group test instruments for novice athletes. The novice athletes include 7 self-shield martial arts from SMAN 10 Semarang and 12 self-shield martial arts novice athletes from Universitas Negeri Semarang. The instruments used in this trial are observation, documentation, and questionnaires as a reference by Aga (2020) and Fajriah (2017). With the following interview indicators in Table 1.

The data analysis technique used in this development research uses descriptive analysis techniques in the form of percentages (Arikunto, 2013). Meanwhile, the data in questionnaires with chosen answers are analyzed using qualitative analysis techniques.

RESULTS AND DISCUSSION

The modification of the Pencak silat front kick accuracy tool is intended for Pencak silat beginner athletes. Small trials and large trials were carried out to find out the response of Pencak silat beginner athletes. A small trial was carried out by doing front kick exercises with targets using precision tools 30 times in a turn and carried out by 7 beginner athletes of Pencak silat at SMAN 10 Semarang obtained an average score of 80% in the "Good" category. While the large-scale trial was carried out by carrying out front kick exercises with a target using a front kick accuracy tool 50 times in a turn and carried out by 12 UNNES self-defence martial arts beginners, the average score

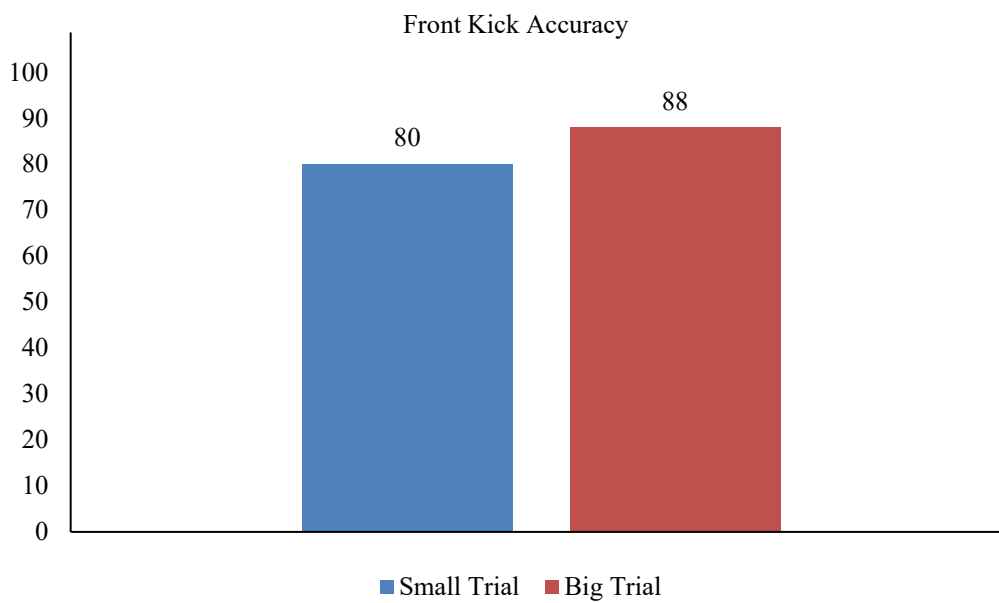


Figure 1. Response to Front Kick Accuracy

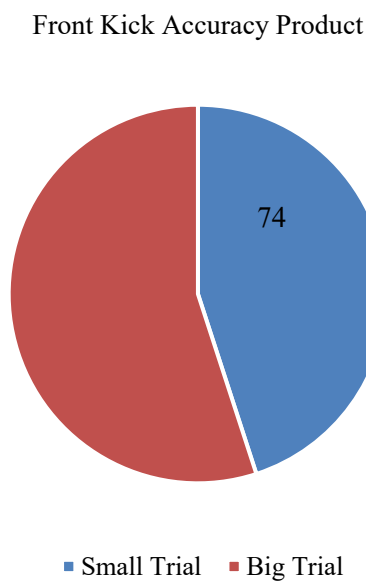


Figure 2. Front Kick Accuracy Product

was 88% and was in the "Very Good" category in Figure 1.

This front kick precision tool has the advantage that it can be adjusted to the respondent's height. In the questionnaire given by respondents, as many as 19 beginner athletes intensely focus on products in high accuracy kicks. The high accuracy kicks on the product have an average response of a small scale of 3.7 with a percentage of 74 %. While on a large scale, it has an average

of 4.5 with a percentage of 92% of 12 respondents in Figure 2.

The results of this accuracy front kick product found that the response from the user contributed to the increase in kick accuracy. Extensive trials have a range value of 18 when compared to small trials. So, there is great hope that this product will significantly contribute to increasing the accuracy of the front kick.

Consistent practice and progress in achieving



Figure 3. Forward Kick Precision Tool

an achievement without the risk of injury. Accuracy in kicks cannot be separated from calm and focus (Subekti et al., 2014) on the intended target. To get good accuracy, it takes a long time to practice improving performance. Subekti et al. (2021, 2020) stated that sports science is essential in developing Pencak silat globally. The discussion focuses on the attacking system using a practical kick to hit the target. Billah & Irawan (2022) also said that performing Pencak silat, both from sparring numbers and art, requires accuracy regarding timing, movement, and targets. Therefore, motion analysis is needed to help improve performance and provide recommendations for the movements performed in Figure 3.

The result of research and development in this study is a modification of the front kick accuracy tool for UNNES Pencak silat beginner athletes. The front kick precision tool is intended for front kick training for beginners of Pencak silat, which can be used in various places because the front kick precision tool is made with lightweight iron, so it is easy to carry and not easily damaged. In addition to using light iron, this front kick precision tool uses wood as a kick restriction bar. The front kick accuracy tool has a gauge that can be adjusted to the athlete's height. This tool is

made of Hollow iron with a diameter of 3x3 cm, a tool length of 60 cm and a tool width of 60 cm (figure 2). The thickness of the iron is 2 mm with Javanese petai wood bars.

A study by Irawan et al. (2021) found that the right kick has good accuracy and speed where the kick distance is affordable and the target is visible. The same thing was also conveyed in Irawan, Nomi, et al. (2021), which is that getting a real kick takes the proper distance and time to be effective. Current research is comparable to that in which the front kick requires high accuracy and proper training. The necessary training uses the appropriate equipment to support the specificity of the kick so that the results obtained are more accurate.

CONCLUSION

The findings of this study revealed that martial arts practitioners could use the front kick's accuracy for practice. For small-scale trials, the front kick accuracy tool's modified value is 3.7 with a percentage of 74%, while for field tests, the value is 4.5 with 92%. With a rating of 88%, this front kick precision tool also offers a great user response for amateur players. For further research, it is hoped that it can add an electronic device to determine the kick speed.

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