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Article

The Effect of Variations of Shooting Training on Shooting Ability in Players Aged 14-17 Years Victory Dairi Football Club

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Abstract

The purpose of the study was to determine the effect of various shooting exercises on shooting ability in players aged 14-17 years Victory Dairi football club in 2022. The research method was conducted through an experimental approach with a one-group pre and post-test design. The research instrument used was a shooting test developed by Ardi Nusri through a distance of 11 metres between the position of the ball and the wall as a target. The boxes on the wall that will be targeted are five boxes that have different widths and the same height. Then, what needs to be recorded during the test is the score obtained based on the target box hit by the ball and the time recorded. Scores and time records will be converted into values, accumulated, and categorised. The sample in this study is 12 people who were selected through purposive sampling technique. Data were analysed using normality test and paired t-test at 5% significance level. The results of hypothesis testing through paired t-test obtained the t-count of 12.89. Furthermore, the value was compared with the t-table value with degree of freedom of 11 at the α 0.05 significance level which is 2.201. Thus, the t-count is greater than the t-table (12.89> 2.201). These results concluded that there is a significant effect of shooting training variations on the results of football shooting ability in players aged 14-17 years Victory Dairi football club in 2022. For future research, it would be beneficial to consider a larger sample size and include a control group in order to further validate the effectiveness of shooting training variations on shooting ability.

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INTRODUCTION

Football is a learning that is very popular with students, especially boys (Aditya & Helmi, 2020). In playing the game of football, physical ability is one of the factors that determine achievement (Palmizal, Nurkadri, & Pratama, 2019). Then, the necessary foundation in addition to physical abilities, players are also required to be experts in performing various basic football techniques, such as dribbling, passing, shooting, controlling, and heading (Girsang & Supriadi, 2021).

From many football schools in North Sumatra, one of them is Victory Dairi football club which has quite good achievements in terms of coaching football players aged 14-17 years. During observations starting from September 28th to October 17th, 2022, the players often experience difficulties in terms of accuracy in shooting where the shooting is still not perfect and mostly does not lead to the goal to create a goal, while the players must be able and skilled in performing basic football techniques (Anam, 2013) to achieve an achievement. The factor that causes the lack of shooting ability of the players is training that is less varied, causing boredom. Whereas in winning the match, the team that gets the most scores wins where the scoring process must be through basic shooting techniques and players who have the potential to score a lot are attackers (Dhimas, Ahmad, & Hidasari, 2021). Based on the description of the problems above, the study of this research is related to the effect of shooting training variations on shooting ability in Victory Dairi FC players aged 14-17 years.

METHODS

The research was conducted through an experimental approach and a one-group pre-test post-test research design. The sample was determined by purposive sampling technique and sample criteria, as follows (1) active practice, (2) male, and (3) age 14- 17 years, so that a total sample of 12 athletes was obtained from a total population of 20 athletes. The sample was given treatment in the form of shooting after dribbling training variations, which amounted to six training variations (Bangun & Supriadi, 2020; Girsang & Supriadi, 2021; Saputro, Sudarsono, & Lufthansa, 2018). The training treatment was conducted 18 times in the Sidikalang area, Dairi Regency, North Sumatra. Before and after doing the training treatment, the sample was tested for shooting ability through a shooting test developed by Ardi Nusri (2018). The test was conducted with a distance of

11 metres and the wall as a target where the wall was obtained in five boxes with the size of the middle box 300x244 cm, the first left and right 150x244 cm, and the second left and right (or the most end box) 66x244 cm. The sample was given the opportunity to shoot twice and when the ball was in the centre box scored one, the first left-right box scored two, and the second left-right box scored three, while outside the box is zero score. In addition to these value points, time was also recorded from the time the ball was kicked until the ball hit the wall, while the ball that did not hit the wall obtained the longest time. As in Table 1, the scores from shooting and time recorded will be converted into scores and continued to add up, then the shooting ability score is obtained. Pre and post training shooting test data were analysed through paired sample t-test with the condition that the data is normally distributed through the Liliefors normality test (Sudjana, 2005).

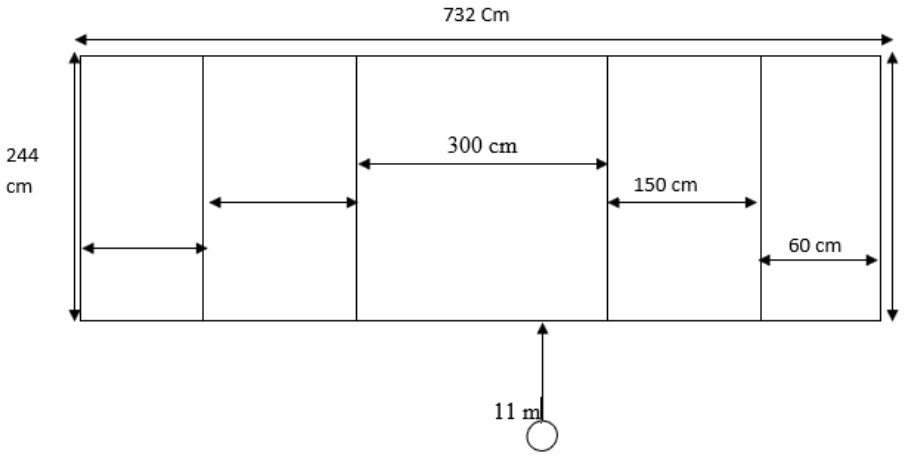

Fig. 1. The Target for Shooting Test

Table 1. Score Conversion and Shooting Time as well as Score Range and Ability Category

Shooting Score		Time Recorded		Ability Categorisation	
Score	**Value**	**Time**	**Value**	**Range Value**	**Category**
0	2	14.80 >	1	15 – 18	Very Good
1	3	13.79 – 14.79	2		
2	4	12.78 – 13.78	3	11 – 14	Good
3	5	11.77 – 12.77	4		
4	6	10.76 – 11.76	5	7 – 10	Fair
5	7	9.75 – 10.75	6		
6	8	8.74 – 9.74	7	3 – 6	Less
		7.73 – 8.73	8		
		6.72 – 7.72	9	0 – 2	Very Less
		< 6.71	10		

RESULT & DISCUSSION

Data Description

Based on the results of the pre-test data presented in the table below, it can be described the results of shooting ability in football players aged 14-17 years Victory Dairi FC in 2022, obtained a total score of 134, an average value of 11.17, a minimum value of 9, a maximum value of 14, a range value of 5, a variance value of 2.70, and a standard deviation of 1.642. Meanwhile, post-test data after being given the treatment of shooting training variations for 18 meetings, the data results are presented in Table 2 with an increase in the shooting ability of Victory Dairi football players. In detail, the increase was obtained with a total score of 157, an average value of 13.08, a minimum value of 11, a maximum value of 16, a range of 4, a variance value of 2.81, and a standard deviation of 1.676.

Table 2. Description of Pre-Test Shooting Data

Sample	Test Value		Data Description	Value	
	Pre-Test	Post Test		Pre-Test	Post Test
1	9	11	Total	134	157
2	9	11			
3	10	12	Average Value	11.17	13.08
4	10	12			
5	10	12	Max. Value	14	16
6	11	13			
7	11	13	Min. Value	9	11
8	12	13			
9	12	14	Value of Range	5	5
10	13	14			
11	13	16	Varians Value	2.70	2.81
12	14	16	Standard Deviation Value	1.642	1.676

Normalitas Test

Table 3. Normality Test through Liliefors Test

Test Variable	Average	Standard Deviation	L-count	L-table	α	Decision
Pre-Test	11.17	1.642	0.179	0.242	0.05	Normal
Post Test	13.08	1.676	0.186	0.242	0.05	Normal

Based on the results of the normality test of the pre-test results of shooting ability, L-count was obtained on the pre-test data worth 0.179. This value is smaller than the L-table acceptance number with a significant level of 5% for a sample size of 12, which is 0.242. Thus, it can be concluded that the shooting ability pre-test data is normally distributed. Meanwhile, the post-test data obtained an L-count value of 0.186. This value

is smaller than the L-table acceptance number with a significant level of 5% for a sample size of 12, which is 0.242. Thus, it can be concluded that the post-test data on shooting ability is normally distributed.

Hypothesis Test

Based on the results of the analysis requirements test that has been carried out that both sample data are normally distributed, then hypothesis testing can be done through paired sample t-test.

Table 4. Hypothesis Test through Paired Sample T-Test

Test Variable	N	Average	Average Difference	Standard Deviation	Difference of Standard Deviation	T-count	T-table
Pre-Test	12	11.17	1.92	1.642	0.515	12.89	2.201
Post Test		13.08		1.676			

The results of hypothesis testing using paired sample t-tests obtained a t-count of 12.89. Furthermore, the value is compared with the t-table value with 2.201. The comparison result is that the t-count value is greater than the t-table value (12.89 > 2.201). This means Ho is rejected and Ha is accepted. Thus, the conclusion of this test is that there is a significant effect of giving a variety of shooting exercises for 18 meetings on the results of shooting ability in football players aged 14-17 years at Victory Dairi FC.

This illustrates that shooting after dribbling training provides maximum results on shooting ability in players aged 14-17 years (Girsang & Supriadi, 2021; Saputro et al., 2018; Wicaksono, 2020; Wondirad & Atomsa, 2019). This is also supported by the provision of training programmes that are given using the principles of varied training and increasing loads. Exercise variation (shooting) is one of the key components needed to stimulate adjustments to the exercise response (Lubis, 2013). Varied training is also training that can avoid boredom in the training process and can encourage athletes to be more optimal and passionate about training (Akhmad, 2013). One of the training principles that must be applied more, especially in football club coaching, is the principle of variety.

CONCLUSION

Based on the results of research, hypothesis testing, and discussion of the results of the study, it can be concluded that there is a significant effect of variations in shooting training through the shooting after dribbling method on the results of shooting ability in football players aged 14-17 years at Victory Dairi football club in 2022. Future research should be conducted on a large sample size and include a control group to further validate the effectiveness of shooting training variations on shooting ability.

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