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The Effect of Shooting Drill Training Model on Basketball Shooting Skills of Extracurricular Students at SMPN 3 Kadipaten

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ABSTRACT

The drill training model is typically applied in focused training to enhance technique. This training model is rarely implemented in extracurricular activities. Therefore, research needs to be conducted on the drill training model as a method to improve students' shooting skills. This research aims to determine the effect of the drill training model on the shooting skills of students at SMPN 3 Kadipaten in basketball games. The method used in this research is a one-group pretest-posttest design where a sample of 20 students is selected using proportionate random sampling. The instrument that will be applied in this research is a treatment focused on students' shooting practice. The results show that there is a significant effect of the shooting drill training method on students' shooting skills, which can be seen through the T-test. For the pretest data, the t-value is 5.080 with 19 degrees of freedom (df) and a significance (Sig.) of 0.000. Meanwhile, for the posttest data, the t-value is 9.114 with 19 degrees of freedom (df) and a significance (Sig.) also of 0.000. Since the significance value is less than 0.05, the null hypothesis (Ho) is rejected.

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A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
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INTRODUCTION

Basketball is one of the most popular sports in the United States and various other countries such as Southern Europe, the Philippines, and Indonesia. Every year, many basketball competitions are held, such as the British Basketball League (BBL) in England, the National Basketball Association (NBA) in the United States, and the Indonesian Basketball League (IBL) in Indonesia. According to (Hastuti in Farhan et al., 2023), "Basketball is a type of sport that uses a large ball and is played with two hands." This sport is one of the most popular among various other sports. In the game of basketball, several techniques must be mastered before playing basketball, including 1) Dribbling Technique, 2) Passing Technique, 3) Shooting Technique, 4) Pivot Technique, 5) Rebound Technique (Devita & Kosasih in Farhan et al., (2023)). Basketball is a sport played by two

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teams, each consisting of five players, to score points by putting the ball into the opponent's basket or ring (Wissel, Hall in Sigit & Sakti, n.d.). Basketball is a highly competitive team sport that requires various movement patterns related to the technical and tactical aspects of the game (Petway & Sofyan in Latuheru et al., 2022). Basketball is a group ball game sport consisting of two teams of five people each who score points by putting the ball into the opponent's basket (Abdullah in Kusuma et al., 2023).

In basketball, the shooting technique is most often used to score points and can determine the number of points in basketball (Jayadi, 2011) 1. Shooting is a movement that aims to score points in a basketball game. Usually, shooting is done every 15-20 seconds, with almost half of the attempts successful (PERBASI in Aulia, 2019). Shooting in basketball is the most important technique for team success (Hidayat & Kartiko in Ketut Sri Juniari et al., n.d.). Because the goal of the game of basketball is to score into the opponent's basket, shooting is the core of the game of basketball. Ahmadi explained that shooting can be done with one hand, two hands, and lay-up (Ahmadi in Proceedings of the National Seminar, n.d.). According to (Syarifuddin in Albert Tangkua Sports Education & Kader Bangsa Palembang, n.d.) shooting a basketball is a way to put a basketball into the basket. All players use basic shooting techniques in the game, such as one-hand set shoot, free throw, jump shoot, three-point shoot, hook shoot, lay-up shoot, and runner.

SMP Negeri 3 Kadipaten is active in extracurricular basketball activities and has good achievements from year to year. However, after the pandemic, the frequency and intensity of training decreased drastically, so students received less training material and experienced a decline in basic basketball technique skills, especially in shooting. To improve mastery of higher techniques and shooting skills, a basketball player or athlete needs to do repeated shooting exercises (Taufik et al, in Latuheru et al., 2022), so that perfect shots and good shooting feelings occur (Yarmani & Juniasyah in Latuheru et al., 2022). Therefore, this study aims to improve students' shooting skills through a drill training model.

The drill method is a method of teaching by training students on the material that has been taught or given so that they have dexterity or skills from what has been learned (Ishaq et al., in Farhan et al., 2023). The drill method or training method is an effective teaching approach to form certain habits. In addition, this method is also useful for improving dexterity, accuracy, speed, and skills (Aulia et al., in Farhan et al., 2023). Drill training is considered appropriate for this study because it focuses on developing technical and tactical skills in the game (Pranyoto in Putu et al., n.d.). Drill training provides an opportunity for children to practice basic movements, dribbling techniques, throwing with precision, and cutting the ball at high speed and intensity. Drill training involves intensive repetitive practice to strengthen and hone these skills (Nugroho & Khory in Putu et al., n.d.). The goal is to improve basketball playing skills in elementary school children, and develop fluency and accuracy in important movements in the game (Fajri & Mustaqim in Nugroho & Khory in Putu et al., n.d.).

The implementation of structured and intensive drill training has been proven to be beneficial in improving technical skills such as dribbling, shooting, passing, and footwork

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(Awangga, Nuryadi & Firmansyah, Resita, & Soederajat et al., in Putu et al., n.d.). Previous literature studies have shown that drill training has a significant positive impact on the development of basketball playing skills (Kurniawan et al., Putu et al., n.d.).

Saputra, W's (2019) research shows that 5-position shooting drill training has a significant effect on the free throw shooting ability of extracurricular male participants in SMP Negeri 30 Muaro Jambi. Participants who did this training experienced an average increase of 1.5 points in their free throw shooting ability, compared to those who did not. The results of the data analysis show that the T_count value of 10.8 exceeds the T_table value of 1.76, with a confidence level of 95%, so the research hypothesis can be accepted. Aulia's (2019) research entitled "The Effect of the Combination of Drill and Visual-Imagery Training Methods on Basketball Shooting Skills" shows that there is a significant effect of the combination of drill and visual imagery training methods on the shooting skills of extracurricular basketball participants at SMP Negeri 1 Karangploso.

In Ketut, Sri Juniari et al., n.d. (2020) Pass and shoot drill training and change of pace and direction drill significantly improved shooting techniques, with increases of 5.8% and 5.13% respectively. There is an effect, however, there is no significant difference between the two in terms of their effect on shooting techniques.

However, research on the effect of drill training in schools is still limited. This study aims to provide a new scientific contribution regarding the effect of drill training on the ability to play basketball in elementary school children, guiding coaches and sports teachers. This study will explore how the drill training model is implemented in basketball extracurricular activities at SMPN 3 Kadipaten to improve students' shooting skills.

METHODS

The research method that will be used in this study is an experimental method with a quantitative approach (Sugiono in Kurnia et al., n.d.) explains that the experimental research method is used to assess the impact of certain treatments. He also explains that an experiment is a process carried out through trials or experimentation. This study is expected to answer the problems contained in this study with a one-group pretest-posttest design to determine the effect of drill training models on the shooting skills of extracurricular basketball students at SMPN 3 Kadipaten. This design is followed by the pattern in Figure 1. as follows:

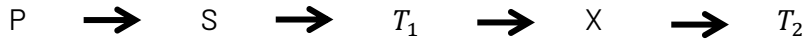

Figure 1.
One Group Pretest-Posttest Design
Description: (P = Population; S = Sample; T_1 = Pretest; T_2 = Posttest; X = Treatment)

There are 2 variables in this study, namely the independent variable (drill training model) and the dependent variable (basketball shooting skills). Drill training is training on a technique that is done repeatedly and continuously. Shooting will be explained in more detail in this study in the research instrument.

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This research instrument uses treatment as described in the research method above, the description of the treatment that will be carried out is according to Figure 2. as follows:

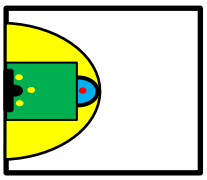

Figure 2.
Shooting Test Instrument

The research instrument used was a shooting test into a basketball basket (Nurhasan, 2001. Pages 184-186). The tools used in the study were basketballs, basketball courts, basketball rings, whistles, stopwatches, and test papers/forms. In this instrument, students can shoot freely as much as possible within 30 seconds which will start after the whistle sounds, and then the results of the balls that go in will be accumulated in each treatment, namely pretest and posttest so that the effect can be seen. After the pretest is carried out, students will be given treatment in the form of shooting drill exercises which will be carried out using different variations at each meeting. The following types of shooting drill exercises are:

Table 1.
Shooting Drill Variations

No.	Exercise	Description
1	Shooting to the Air	The leading student holding the ball is in a lying position and shoots into the air 5 times which are expected to return to the hand in a parallel position.
2	Bang Shoot	Students run to the middle and ask for the ball, then shoot on the side under the ring by bouncing the ball to the board alternately until the ball goes in, accumulating 40 for each group pair. Students who pass immediately run and ask for the ball and then shoot.
3	Medium Shoot	Students make running movements to ask for the ball and do medium shoots alternately continuously until the ball goes in, accumulating to 20 for each group pair.
4	Run and Shoot	Students make running movements and ask for the ball, then shoot by utilizing the momentum of running. After receiving the pass, students make shooting movements with step-step-jump-shoot.
5	Jump Stop and Shoot	Students dribble towards the first cone followed by a crossover, jump stop, and shoot towards the ring.
6	Shoot with Distraction	Students hold the ball and improvise according to their abilities in a 1 vs 1 situation, then their friends try to block them from shooting. Each pair of students is given 12 seconds to shoot.
7	Back Step and Shoot	Students dribble in front of the cone that has been provided, then do a crossover to the left or right and a stepback movement followed by a shooting movement.
8	Three Point Shoot	Students shoot 3 times in the Right corner, centre, and Left corner alternately. Students in row 3 pass to students in row 1 then run towards the pass. Students in row 1 do a three-point shoot then students in row 2 do a rebound. Each time they do a movement, students rotate clockwise. Shooting will be done in the right corner, centre, and left corner sequentially.
9	Rebound and Shoot	Students throw the ball to the board so that the ball bounces, then students jump followed by catching the ball and shooting towards the ring. In this movement, students are encouraged to be able to shoot before landing.
10	Fake Shoot	Students dribble towards the first cone then crossover, and do a jump stop to the second cone followed by a fake, step, and shoot movement. Students are free to take steps to the right or left according to their wishes.

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RESULTS AND DISCUSSION

After conducting the pretest and posttest, the researcher will record the final scores obtained by the students, the final results of the pretest and posttest can be seen in Table 2. The table in question is as follows:

Table 2.

Pretest-Posttest Results Score

N	*Pretest*	*Posttest*	*N*	*Pretest*	*Posttest*
A	3	4	K	0	1
B	1	3	L	0	1
C	1	2	M	1	1
D	0	2	N	2	1
E	2	3	O	1	3
F	0	2	P	1	3
G	2	2	Q	1	2
H	1	2	R	2	2
I	0	1	S	3	5
J	0	2	T	3	4

Descriptive Statistical Analysis

Table 3.

Results of Descriptive Statistical Analysis

	N	Range	Max	Min	Mean	Stdev	Variance
Pretest	20	3	3	0	1.2	0.983	0.967
Posttest	20	4	5	1	2.25	1.028	1.057

Analysis of pretest and posttest data shows differences in measurement results before and after an intervention or treatment. In this study, 20 participants took the pretest and posttest. For the pretest, the minimum score was 0 and the maximum was 3, while for the posttest, the minimum score was 1 and the maximum was 5. The average pretest score was 1.2 with a standard deviation of 0.983, while the average posttest score was 2.25 with a standard deviation of 1.028. This shows a significant increase from pretest to posttest. In addition, the variation in the post-test score (1.057) was slightly higher than the pretest (0.967), indicating a greater variation in the post-test results. Thus, it can be concluded that the intervention or treatment given has a positive impact on the measured variables, as reflected in the increase in the average score from the pretest to the posttest.

Analysis Prerequisite Test (Normality Test)

Table 4.

Results of the Normality Test

Tests of Normality			
	Shapiro Wilk		
	Statistic	df	Sig.
Pretest	0,862	20	0,09
Posttest	0,880	20	0,08

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In the pretest data, the Shapiro-Wilk statistical value is 0.862 with a significance value (Sig.) of 0.09. In the posttest data, the Shapiro-Wilk statistical value is 0.880 with a significance value of 0.08. This significance value (Sig.) indicates that if the Sig. Value is greater than 0.05, then the data is normally distributed.

Hypothesis Testing

Table 5.
Results of t-test

One-Sample Test			
Test Value = 0			
	t	**df**	**Sig**
Pretes	5,080	19	0,000
Postes	9,114	19	0,000

In the table above, the pretest data, the t value is 5.080 with a df of 19 and a Sig. Value of 0.000. While in the posttest data, the t value is 9.114 with a df of 19 and a Sig. Value of 0.000. This Sig. The value indicates the probability that the sample mean is not significantly different from the zero value. Usually, if the Sig. Value is less than 0.05, we can conclude that there is a significant difference between the sample mean and the zero value.

Because the Sig. The value in both test results is very small (0.000), less than 0.05, we can conclude that the average of the pretest and posttest data is significantly different from the zero value. This shows that both the pretest and posttest have an average that is statistically different from zero, indicating that there is a significant effect or change measured by the pretest and posttest in this study.

This study took samples from extracurricular basketball students at SMPN 3 Kadipaten. Data processing assisted by SPSS Version 26 software shows that there is an increase in pretest-posttest data. This indicates that structured and intensive drill training positively affects the development of technical skills in basketball games, following the focus of research on the development of children's technical and tactical skills in the game, as supported by the theory that suggests the benefits of drill training in improving basketball playing skills in children.

This study appropriately chose drill training because drill training has been proven effective in developing technical and tactical skills in basketball games. Experts emphasize that drill training provides an opportunity for children to practice basic movements, dribbling techniques, throwing with precision, and cutting the ball with high speed and intensity. This is consistent with the purpose of this study which aims to improve students' basketball playing skills at the junior high school level. Drill training involves intensive repetitive practice to strengthen and hone these skills, which is also following the approach taken in this study.

In addition, the results of previous studies, as reported by Aulia (2019), Ketut Sri Juniari et al., n.d., and Saputra W. (2019) support the effectiveness of implementing structured and intensive drill training in improving technical skills such as dribbling, shooting, passing, and footwork. This finding is consistent with the results of this study

which showed an increase in students' shooting scores after the drill training treatment. This emphasizes that drill training aims to develop fluency and accuracy in important movements in the game, which follows the focus of this study to improve students' shooting abilities in playing basketball.

Overall, this study supports the findings of previous literature studies which show a positive and significant impact of implementing drill training in developing children's basketball playing skills, following the focus and objectives of this study.

CONCLUSION

Data analysis showed a significant increase from pretest to posttest. The average pretest score was 1.2 with a standard deviation of 0.983, while the average posttest score was 2.25 with a standard deviation of 1.028, indicating a positive increase. The normality test showed a normal distribution of data for both tests. In addition, the t-test results showed a significant difference between the pretest and post-test means, with a significance value much smaller than 0.05. Thus, it can be concluded that the intervention or treatment given to extracurricular basketball students at SMPN 3 Kadipaten has a significant positive impact on students' shooting abilities.

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