The Effect of Training Methods and Power on Shooting Accuracy of Porma Football School Players in Kudus Regency

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Article Info	Abstract
	The purpose of this research is to compare training with fixed targets with training with changing targets at SSB PORMA Kudus Regency. Objectives 1) To investigate the impact of fixed and variable target training methods on soccer shooting accuracy. 2) Analyzing the difference between the effects of high and low power on the accuracy of soccer shooting. 3) Examining the influence of training methods and strength on the shooting accuracy of SSB Porma soccer players in Kudus Regency. Research Procedure Utilize a 2 x 2 factorial design for your experiments. The factorial design consists of two independent variables: training method and leg muscle strength. This study included 24 16-year-old SSB PORMA Kudus Regency players as participants. The results indicated that the Training method (Fixed Targets and Changed Targets) yielded a value of 0.035 (<0.05). Then, shooting accuracy is affected by the fixed target training method and the variable target training approach. Leg Muscle Power (high and low) has a sig value of 0.017 (<0.05). Then, high power and low power influence the soccer shot accuracy of SSB Porma players in Kudus Regency. Training Method * Power has a sig value of 0.000 (<0.05). The conclusion of changing the target training strategy is markedly improved shooting accuracy. The lower leg muscular strength was much better than the high power. There is an interaction between training methods and strength on the soccer shot accuracy of SSB Porma, Kudus Regency players.

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INTRODUCTION

Football is a popular sport in Indonesian society. Some individuals play football for recreation and others for achievement. Football is a team sport in which each team consists of eleven players, necessitating teamwork and skills from each player, as well as various physical conditions that must be met to play the game (Adityatama, 2017)

Football according to (Nusufi, 2012) Many factors, such as physical, technical, tactical, and mental conditions, determine and support football success. Aspects of physical conditioning training play a significant role in the training routines of many sports, including football. The physical condition training program must be created correctly and methodically in order to improve performance.

Football players must master technique in order to be successful. Basic technique is one of the qualities for a football player to be able to play. Football players must possess the following basic skills: kicking (shooting), stopping/controlling (stopping), dribbling, heading, tackling, throw-in, trickery, and goalkeeping technique (Candra, Sulaiman, & Taufik, 2015). The act of kicking the ball is one of the game's most prominent characteristics. Players with proficient kicking techniques will play effectively. The objective of kicking the ball is to pass, shoot the goal (shooting), and sweep in order to avoid the opponent's attack (Sucipto dkk, 2000).

Many factors influence and support good basic technique; for instance, when a player shoots, one of the supporting factors is good power (Raharjo, 2018). When the appropriate amount of force is applied, the resulting kick will be difficult for the goalkeeper to block, increasing the likelihood of a goal being scored. In addition to mastering effective fundamental techniques, we must also train the supporting components that influence whether the basic techniques are effective. The chances of scoring will increase if the kick is accurate.

Typically, a young person shoots from close to the goal. As a player's ability increases, he or she should begin shooting from further

away from the goal (Husni & Irawadi, 2019) A player must be able to focus solely on the ball to be kicked in order to achieve a good shooting target, without needing to engage in complicated or difficult techniques. Every player must be able to shoot under any conditions by focusing on the ball.

Football is a sport that needs improvement, as not only adults but also children play it frequently and have made it the most popular sport in the world (Naldi & Irawan, 2020). Indonesian football has developed and progressed. PSSI has made efforts to encourage youth football. One of its initiatives is to allow individuals, groups, and institutions to establish football schools (SSB). A football school (SSB) is an institution that provides knowledge, guidance on fundamental football techniques, and football playing skills beginning with the correct application and mastery of football techniques, and whose purpose is to develop the athletic potential of athletes. The objective of football schools is to accommodate and provide opportunities for students to develop good skills, attitudes, personality, and behavior, as well as to provide a solid foundation for playing football with the correct technique.

Coaching and development of sports beginning at an early age, specifically between the ages of six and fourteen. It has excellent physical and psychological anthropometric characteristics. This can be achieved through proper identification utilizing methods and science and technology (Science and Technology) (Nugraha, 2015). The objective of the coaching stages is for athletes to achieve peak performance, also known as the golden age. This should be supported by an effective training program with periodic evaluations of progress. To reach the peak of an athlete's performance, which typically occurs around the age of 20, and the duration of the coaching stage, which is 8-10 years, a person must have begun to be fostered and trained between the ages of 3 and 14, which is considered an early age (Utama, 2019).

The location of SSB Porma Kudus in the Kudus Regency is Jalan Mejobo, Mlati lor, City District, Kudus Regency. The training field is located in the village of Mlati Norowito.

Scheduled every Sunday, Tuesday, and Friday for practice. The age group consisted of the U-10, U-12, U-14, and U-16 age groups. In the observation, the author investigated children aged 0 to 16 years old. The SSB was established due to the desire to foster the growth of children's potential and early childhood development in the Kudus region and Kudus Regency in general. Several societal components collaborate to advance football in the area, as stated by the founder.

The results of field observations from 8 to 15 February 2021, SSB in areas where there is a competition, players aged 14 to 16 are included in the competition, and when a team has targeted the title of champion in a competitive event, there will be training preparations aimed at achieving these goals. SSB Porma contains SSB that is already well-known in the Kudus Regency region. In tournaments or trials involving multiple teams, SSBPorma is always invited as evidence. In the 2015 simulations of the Kudus Regent tournament, the Porma Cup, and the SSB Pre Danone Cup held throughout Central Java, SSB Porma reached the final round and emerged victorious.

There are still many SSB Porma players who have not been able to shoot the ball on goal (shooting) in daily practice, training, and championship and friendly matches, according to observations made by researchers of SSB Porma players. As evidenced by the fact that only four of the 15 players are able to shoot effectively, SSB Porma is also able to win every game by a relatively tiny score, as evidenced by the fact that the final score does not produce many goals. The players have a good technique for kicking, but due to their physical limitations, the resulting kick is inadequate.

Based on the description of the background above, the author is interested in conducting research (Experimental Studies) with the title "The Effect of Training Methods and Power on Shooting Accuracy in SSB Porma Players, Kudus Regency".

METHODS

This study used experimental pre-test and post-test designs for quantitative research. This study's sample comprised 24 SSB PORMA players from Kudus Regency. Researchers assessed leg muscle strength using a long jump test with no prefix (standing board jump). 24 samples were obtained from 28 populations and then divided into 2 groups using purpose sampling. According to the results of the leg muscle strength obtained from the exercise method using fixed and changing targets.

This research was conducted for one month with the exercise program implemented four times per week. In a factorial design, two or more variables are manipulated simultaneously to determine the effect of each variable on the dependent variable, as well as the interaction effects between variables (Arief, 2004), Specifically, the exercise group with fixed targets and strong leg muscle strength. Fixed target group and low leg muscle strength. The target training group shifted, and leg muscle strength was elevated. The target training group had shifted, and leg muscle strength was weak. UFootball shooting accuracy instrument using Nurhasan, (2007 : 214) with a validity of 0.56 and a reliability of 0.73.

Table 1. The Norm of the Long Jump Without a Male Prefix

Category	Age			
	13	14	15	16
Excellent	2.00 m	2.15 m	2.30 m	2.40 m
Good	1.85 m	1.90 m	2.10 m	2.20 m
Moderate	1.70 m	1.80 m	1.90 m	2.10 m
Low	1.50 m	1.60 m	1.70 m	1,85 m
Very Low	1.30 m	1.35 m	1.50 m	1.60 m

Source : (Adi, Winendra, 2008)

Analyses of prerequisite tests, namely the Normality Test (Kolmogorov Smirnov Test) and the Homogeneity of Variance Test (with Levene's Test), were performed prior to data analysis. The purpose of the normality test is to determine whether or not the sample of data used in the study was normally distributed. The purpose of the homogeneity test is to determine whether or not each group's variance is homogeneous.

Quantitative analysis of the study was carried out using two-way factorial analysis (ANOVA) at a significance level of = 0.05. To test the sample mean comparative hypothesis.

RESULT AND DISCUSSION

Effect of Fixed Target Practice and Changed Target Target on Soccer Shooting Accuracy

The sample normality test was carried out using the Kolmogorov Smirnov test (Sudjana, 2006: 466). Computer-assisted analysis of the data in this study. The complete results of the Kolmogorov Smirnov test are provided in the appendix, while a summary is provided in the table below:

Table 2. Sample Normality Test Results
Tests of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Standardized Residual for Hasil	.126	24	.200*	.964	24	.518

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

If the sample size is > 50, the Kolmogorov-Smirnov technique is used for the normality test. If the sample size is < 50, the Shapiro-Wilk technique is used. Due to the fact that in this study there were less than 50 samples in each group, the Shapiro-Wilk technique was used to test for normality. With a significance level of 5%, data is considered normal if the sig value is > 0.05 and abnormal if it is < 0.05.

Table 3. Homogeneity Test

Levene's Test of Equality of Error Variances[a]
Dependent Variable: Shooting Accuracy

F	df1	df2	Sig.
.726	3	20	.548

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

This study employed the Test of Homogeneity of Variances to examine homogeneity. The data is homogeneous if the sig value is > 0.05, and it is not homogeneous if the sig value is < 0.05. . Therefore, the data in this study have a homogeneous variance.

Table 4. Research Result Data

Tests of Between-Subjects Effects
Dependent Variable: Hasil Akurasi Shooting

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.728[a]	3	.576	14.835	.000
Intercept	118.815	1	118.815	3059.614	.000
MetodeLatihan	.202	1	.202	5.193	.034

Power	.027	1	.027	.687	.017
MetodeLatihan * Power	1.500	1	1.500	38.627	.000
Error	.777	20	.039		
Total	121.320	24			
Corrected Total	2.505	23			

a. R Squared = .690 (Adjusted R Squared = .643)

The sig value for the Method (Fixed Target Target and Changed Target Target) is 0.000 (<0.05) based on the Tests of Between-Subjects Effects output shown previously. Therefore, if there is a significant difference between the effects of fixed target training and changing targets on soccer shooting accuracy.

If there is a difference, the group with the greater improvement between fixed target training and changing target targets can be seen in the table below:

Table 5. Differences in Effect of Exercise Method

Data	Fixed Target Exercise Method	Target Training Method Changed
Pretest	1.78	1.6
Posttest	3.8	3.9

Based on the above table, the output of the Tests of Between-Subjects Effects yielded a sig value of 0.035 (<0.05) for the Training Method (Fixed Target and Changed Target). Therefore, if there is an association between fixed target training methods and changing target training and SSB Porma player shooting accuracy, Kudus Regency.

The Effect of High and Low Limb Muscle Power on Soccer Shooting Accuracy

The sig value for Limb Muscle Power (high and low) was 0.017 (<0.05) based on the Tests of Between-Subjects Effects output shown previously. Therefore, it is possible to conclude if there is a relationship between high and low power and the accuracy of soccer shooting by SSB Porma players in the Kudus Regency.

This effect is evident from the average value from the pretest to the posttest for each group that experienced an increase, as shown in the table below:

Table 6. Differences in the Effect of Limb Muscle Power

Data	High Leg Muscle Power	Low Limb Muscle Power
Pretest	2.0	1.3
Posttest	4.2	3.6

The increase in the low leg muscle power group, which is only 2.3, is greater than the increase in the high leg muscle power group, which is only 2.2.

The Interaction Between Training Methods and Limb Muscle Power on Soccer Shooting Accuracy

According to the output of Tests of Between-Subjects Effects, the sig value for Exercise Method * Power is 0.000 (<0.05). Therefore, it can be determined if there is a relationship between training methods and strength and the shooting accuracy of SSB Porma players in the Kudus Regency. This study's interactions are shown in the following table:

Table 7. Interaction of Exercise Method and Arm Muscle Strength

Training Methods * Limb Power Level

Dependent Variable: Shooting Accuracy Results

Training Methods	Limb Power Level	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Fixed Target Training Method	High Leg Power	1.850	.080	1.682	2.018
	Low Leg Power	2.417	.080	2.249	2.584
Target Training Method Changed	High Leg Power	2.533	.080	2.366	2.701
	Low Leg Power	2.100	.080	1.932	2.268

According to the table above, individuals with high leg power benefit more from a changed target training method than from a fixed target exercise method, whereas individuals with low leg power benefit more from a fixed target exercise method than from a changed target training method. target changed.

DISCUSSION

Fixed-target training group with exceptional leg muscle strength (M) (1.850). Fixed-target training group with low leg muscles (M) (2.417). Modify training group with high leg muscle strength (M) (2.533). Training group objective shifted with regard to low leg muscle strength (M) (2.00). The average difference between the two groups indicated that the group of children with target training and high leg muscle strength had improved shooting accuracy.

Research by (Zubaidin, Syah, & Wibawa, 2021) The results showed that the target game exercise had a significant effect of 0.000 (p < 0.05). The results of this study indicate that target game training has a significant effect on the soccer shooting ability of SSB Kembang Putra Aikmel students in 2020.

Techniques in soccer are categorized as follows: Techniques without the ball (body technique), Body technique refers to how players control their body movements in games involving running, jumping, and body movement. (a) kicking technique, (b) ball-holding technique, (c) dribbling technique, (d) ball-tricking technique, (e) ball-heading technique, (f) ball-taking technique, and (g) ball-throwing technique. (h) goalkeeping technique (Hung et al., 2021). In general, shooting aims to get the ball into the opponent's goal, while the part of the foot used for shooting is using the back of the foot (Budiharjo, Florentinus, Sugiharto, & Soegiyanto, 2018) Shooting practice techniques must be applied properly and sustainably so that athletes are accustomed to doing and can apply it during matches.

This study is limited by the fact that SSB has just begun preparing an exercise program after ceasing during COVID-19. The trainings performed are not yet well-planned. Authors encountered the limitations of this study due to the fact that the research was conducted after the covid 19 pandemic under the supervision of the covid cluster team so as not to conclude new clusters.

CONCLUSION

Soccer shooting accuracy is affected by fixed target training methods and changing targets. The changing target training method improves shooting accuracy significantly more than the fixed target training method. There is a correlation between high and low leg muscle strength and soccer shooting accuracy. High leg muscle strength produces significantly superior shooting results compared to low leg muscle strength. There is a relationship between training methods and leg muscle strength and soccer shooting accuracy. Methods Fixed target training and low leg muscle power have significantly better shooting results than fixed target exercise and high leg muscle powerh. Target training with changing tires and low leg muscle strength produced significantly less accurate shooting than target training with changing targets and high leg muscle strength.

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