

Effects of Practice Method and Power on Shooting Accuracy Football

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Abstract—This research compares the effect of fixed target practice and change target practice on shooting accuracy football. 24 school athletes aged 13-15 years old participating in this study were grouped into 4 groups by using ordinal pairing technique. Each group was trained using fixed target practice ($n=12$) and change target practice ($n=12$). Training was conducted 3 times a week in 90 minutes for each meeting. The vertical jump test was applied to measure the power while widiaastuti test was adopted to examine the shooting accuracy football. For data analysis purpose, this study applied a two-way ANOVA. Results of this study indicate that fixed target practice has greater influence on shooting accuracy football than does change target practice on shooting accuracy football with $0.004 < 0.05$ significance level. Furthermore, athletes with high power level has better shooting accuracy football than those with low power level on $0.003 < 0.05$ significance level. The results also indicate significant influence of training method and power on football skills with $0.032 < 0.05$ significance level.

Keywords—fixed target practice, changes, target practice, Power, shooting Accuracy football.

I. INTRODUCTION

Today's most popular sport every circle fond of doing that is football one game of football [1]. football is a team sport that requires performance across all intensity intermittent practice [2]. football has the achievement of the team must be balanced by individual players who qualified and capable of implementing the techniques of playing football perfectly [3]. The ultimate goal of playing football is to find a win, in which victory can occur when one team more incorporate many goals against the opponent players must be good looking for the weaknesses of the keeper. The wicket is where the weakness of the goalkeeper [4]. It can be proven in an practice program kick towards goal that player have to get it done to improve the accuracy of the kick [5].

Based on interviews and direct observation during the process of practice some researchers see that the method of practice provided is not optimal so that the practice is still weak against the objectives to be achieved. Given kicking is an important factor and a major football game player it is necessary to develop proficiency in the kicking. A good kicking in the game of football requires the ability to estimate the distance and direction in which the ball must because football player must direct the ball to the right [6]. Besides, there is an element in a no less important in directing the force of power. Power limb muscle is one component that affects the success a people in motor skills [7]. If the player is supported by limb muscle power and

ability bio motor good, then the player can do the shooting on goal in a game with football. For increase the accuracy of shots on goal practices need for a form of practice that needs to be done by a particular kicker forward with a player has kick was good and had good accuracy will be easy team in scoring, there are so many methods of practice that supports the success of shooting accuracy football of which is fixed target practice and change target practice. Methods target practice remains practice direct the ball to one specific goal in one step provide opportunities and more and more because repeated exercise will add a good memory with more focus on one of the practices [8, 9]. Glowing target practice system with an increase in the ball towards the goal area better [10].while change target practice is a process of shooting with direct kick ball is moving or from one target to the other target in one step. Excess target may change its own displacement target which will further support towards the Accuracy and accuracy as targets for more and move around. There are two different to shots techniques that can be adopted is strength and placement of the target [11].

Motivated from previous explanation, this paper presents a study on the effects of practice method and power on shooting accuracy football.

The rest of this paper is organized as follow: Section II describes proposed research method. Section III presents the obtained results and following by discussion in section IV. Finally, Section V concludes this work.

II. PROPOSED METHOD

Twenty-four school football athletes who come from Jogja, Indonesia was chosen as samples. Selection of subjects using random sampling techniques and ordinal pairing is used as the divisor group so obtained 4 groups. Criteria for athletes aged 13-15 years. Before the pre-test subjects were given the test limb muscle power as the divisor group. Obtained two groups of high-power limb ($n = 12$) and lower limb power group ($n = 12$).

The treatment given to the practice methods and goals remain unchanged target practice methods performed 3 times a week with duration of 90 minutes each meeting. The practice program is designed in accordance with the principles of practice and intensity, volume and the corresponding recovery characteristics of an athlete at that age. To determine the accuracy of the test Accuracy of football athletes use shooting. Instrument tests conducted to measure the accuracy of kicks at goal, which is to shoot the ball determined to the goal already 3 times and then the results are aggregated. This test is valid and reliable way to measure the accuracy of shooting football.

Vertical Jump aims to measure athletes limb muscle power. The tools used to perform vertical jump consists of: board with a height of 150cm to 350cm, chalk, cleaning and dividing average. Assessment criteria are determined based on the highest jump and the athletes were given the opportunity three occasions during the test.

III. RESULTS

TABLE I. THE SIGNIFICANT DIFFERENCE BETWEEN PRE-TEST AND POST-TEST RESULTS OF THE TARGET GROUP AND THE TARGET GROUP REMAINED UNCHANGED IN THE ACCURACY SHOOTING FOOTBALL

No	High Power Group					
	Fixed Target			Change Target		
	Pretest	Posttest	difference	Pretest	Posttest	difference
1	6	14	8	3	12	9
2	4	17	13	8	11	3
3	8	15	7	10	15	5
4	15	20	5	8	12	4
5	6	14	8	3	10	7
6	6	14	8	4	10	6
Total	45	94	49	36	70	34

No	Low Power Group					
	Fixed Target			change Target		
	Pretest	Posttest	difference	Pretest	Posttest	difference
1	3	12	9	5	10	5
2	9	11	3	10	13	3
3	4	13	9	7	12	5
4	11	12	2	7	10	3
5	6	11	5	5	11	6
6	5	10	5	5	9	4
Total	38	69	33	39	65	26

TABLE II. RESULTS OF THE EXPERIMENTAL GROUP ANOVA WITH TARGETED PRACTICE METHODS AND PRACTICE METHODS TARGET REMAINS UNCHANGED

Source	Type III Sum of Square	df	Mean Square	F	Sig
Fixed target & change target	32,667	1	32,667	10,370	0,004

Based on the results in Tables I and II, the ρ obtained significance value of 0.004 <0.05. Thus there is a significant difference fixed targeted practice methods and change target practice methods against the accuracy of shooting football. Based on the analysis it was found to be fixed target practice higher (better) with differences in the mean value/ average-average pre-test of 7.50 and post-test at 15.67 compared with change target practice methods with the difference mean value/average pre-test and post-test amounted to 6.00 at 11.67. This means that the research hypothesis which states that there are differences influence Among significant fixed targeted practice methods and change target practice on shooting accuracy football has been proven.

TABLE III. RESULTS OF ANOVA HIGH LIMB POWER DIFFERENCES AND LOWER LIMB POWER

Source	Type III Sum of Square	df	Mean Square	F	Sig
Power	37,500	1	37,500	11,905	0,003

Based on the results obtained in Table III, the ρ significance value of 0.003 <0.05. Based on this means that there is a significant difference of athletes who have a high limb muscle power and lower limb muscle power to the accuracy of shooting football. Based on the analysis turned out to athletes who have a high limb muscle power with a

difference of 7.50 and a value of 15.67 is better from those of athletes who have lower limb muscle power with a difference of 6.00 and a value of 11.67. This means that the research hypothesis which states that there is a significant difference between athletes who have a high limb muscle power and lower limb muscle power to the accuracy of shooting football has been proven.

TABLE IV. RESULTS OF THE INTERACTION BETWEEN FIXED TARGET PARTICIPANTS AND CHANGES TARGET PRACTICE WITH HIGH LIMB POWER DIFFERENCES AND LOWER LIMB POWER

Source	Type III Sum of Square	df	Mean Square	F	Sig
Fixed target & change target * Power	16,667	1	16,667	5,291	0,032

Based on the results obtained in Table IV, the ρ significance value of 0.032 <0.05. Based on the hypothesis that this means there is a significant interaction between method of practice (goals and objectives remain unchanged) and power limbs (high and low) the accuracy of shooting football school athletes have proven 13-15 year. Figure 1 depicts the bar chart of pre-test and post-test shooting accuracy football.

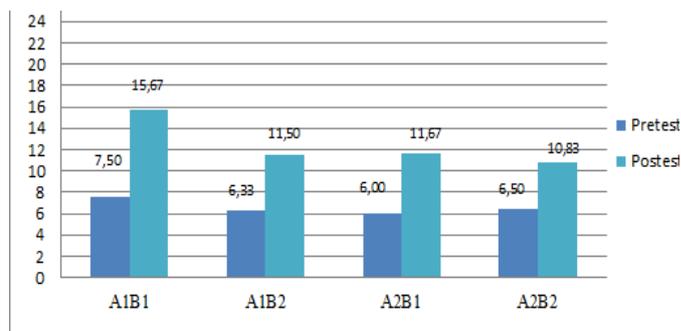


Fig. 1. Bar chart pre-test and post-test shooting accuracy football

IV. DISCUSSION

The results of the study showed the current implementation of the four groups were given treatment within 2 months. shooting accuracy Football seen in athletes 13-15 year in this study experienced a significant increase. In Table IV, the groups of high-power limb with fixed target practice group increased significantly than lower limb power group with changed target practice group is shown by the significant value of 0.032 ρ <0.05. So the result is obtained between fixed target practice and changes target practice on shooting accuracy football. Basically remain more focused fixed target practice to be achieved by repeating the movement and nature-based program that is practical and relevant to the development of player skills [12]. In contrast to the changed target practice does not promote practice with goal pattern with a target to increase but better to the goal change target practice used only at certain times just so limited. The role of power in kicked to the goal within their target of becoming one of the very fundamental role in assessing the accuracy or measure the level of one's instincts [13]. Someone who has the power limb high, it would be better to make a move kick to the goal, as opposed to someone who has the power limb lower, it would be difficult to do a kick that would targeted because shooting be too low

so that needs to be trained to increase the strength of power in the kick [14].

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V. CONCLUSION

This study has shown that the application of the fixed target practice and change target practice have a significant difference on accuracy of shooting football school athletes 13-15 year. This suggests that workouts remain more appropriate target in improving the accuracy of shooting to the goal. It has been demonstrated that target practice is capable of delivering a significant effect in improving the accuracy of shooting football school athletes 13-15 year that is supported by a capable limb muscle power. So, one can say that it was successful and proved to be the right blend to increase the capability of shooting accuracy football.

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