

Gianty Lisma, Sugiyanto, Kristiyanto Agus. Effect of Imagery Training in Technical Training Program on Basketball Free Throw Accuracy Viewed from Intelligence (An Experimental Study to Extracurricular Male Students Of State Senior Secondary School 4 of Pekanbaru). *Journal of Education, Health and Sport*. 2019;9(2):243-252. eISSN 2391-8306. DOI <http://dx.doi.org/10.5281/zenodo.2564094>
<http://ojs.ukw.edu.pl/index.php/johs/article/view/6590>
<https://pbn.nauka.gov.pl/sedno-webapp/works/904214>

The journal has had 7 points in Ministry of Science and Higher Education parametric evaluation. Part B item 1223 (26/01/2017).
1223 Journal of Education, Health and Sport eISSN 2391-8306 7

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The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 30.01.2019. Revised: 30.01.2019. Accepted: 13.02.2019.

Effect of Imagery Training in Technical Training Program on Basketball Free Throw Accuracy Viewed from Intelligence (An Experimental Study to Extracurricular Male Students Of State Senior Secondary School 4 of Pekanbaru)

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Abstract

Imagery training in a technical training program influence the student's achievement. This type of training has not been applied especially in Male Students of Extracurricular Program in Senior Secondary State School 4 Pekanbaru. The purpose of this study is to find out: 1) The difference in influence between technical training program with imagery training and technical training program without imagery training on the accuracy of basketball free throw 2) The difference in the accuracy of Basketball free throw between students who have high intelligence and the ones who have low intelligence. 3) Effect of interaction between imagery training in technical training program and students' intelligence on the accuracy of Basketball free throw. This reseach used The 2x2 Factorial Experimental Design Method. The data were collected through Standard Progressive Matrices (SPM) test and the Basketball free throw test. The data were analyzed by using Variance Analysis techniques (ANOVA) with 2 x 2 factorial design at $\alpha = 0.05$. If the value of F obtained (Fo) is significant, then it is further analyzed by using the Newman-keuls range test. The results of the research as follows : 1) There is an influence between technical training programs with imagery training and technical training programs without imagery training on the accuracy of Basketball free throws. 2) There is a difference in the accuracy of Basketball free throw between students who have high and the ones who have low intelligence. 3)

There are interactions between imagery training in technical training program and the students' intelligence on the accuracy of Basketball free throw.

Key words: Imagery Training, Accuracy, Basketball

INTRODUCTION

Basketball is a game which is played in teams with each team consists of five people (Wissel, 2000:2). The goal of each team is to score points into the opponent's basket and to try to prevent the opponent from scoring. According to Sumiyarsono (2002:1) Basketball is one form of sport that is included in team based sport. It requires a collaboration and skills from each individual in which there are several elements of physical condition required in Basketball games such as strength, endurance, coordination, balance, explosive power, etc. In addition to these elements, a basketball player must also master a variety of basic techniques in playing basketball such as shooting, herding, crawling, pivot, etc. According to Margono (2010: 15), the basic motion techniques in basketball games are the skills to do the motions which are carried out in the activities of playing basketball related to the activity during playing the ball or the activity before playing the ball.

Shooting is a basic technique that must be mastered by every basketball player without exception. In order for a player to be a good shooter, the player must enjoy shooting practice so that the player will continue to do shooting exercises by not easily getting bored (Kosasih, 2008:46). Free throw is a basic shooting technique that is often used by every player to get points in every match. Technically, free throw is easy to do because the shot consists of several stages or phases of movement as follows; hand motion in shooting, eyes on the target or target, releasing the ball and further motion.

The result of the observation of the researcher who also becomes the teacher and the extracurricular trainer of Senior Secondary State School 4 Pekanbaru is that the male

students who join the extracurricular in doing Basketball free throw is often less optimal resulting many opportunities to create points are wasted and they also often have difficulty in doing free throw. Many students often fail to do free throw.

Based on the explanation above, imagery training in technical training program has a very important role to play in improving students' skills in doing Basketball free throw. Imagery training in technical training program has not been applied especially in male students of the Senior Secondary State School 4 Pekanbaru who join extracurricular program.

METHODOLOGY

This research was carried out at the Senior Secondary State School 4 Pekanbaru, Riau. This research was conducted on March 1, 2017 to April 14, 2017. The population was all male students who join extracurricular program. Random sampling technique was used to determine its samples totalling 18 students. This research used 2x2 Factorial Experimental design method. The data were collected by using the Standard Progressive Matrices (SPM) test and the Basketball free throw test. The data were analyzed by using variance analysis techniques (ANAVA) with 2 x 2 factorial design at $\alpha = 0.05$. If the value of F obtained (F_o) is significant, then it is further analyzed by using the Newman-keuls range test.

RESULT AND DISCUSSION

The discussion of the results of this study provides further interpretation of the results of data analysis that has been put forward. Based on hypothesis testing, there are two conclusions. They are: (a) There is a significant influence between the main factors of the study; (b) There is a meaningful interaction between the main factors in the form of two-factor interaction. These conclusions are further explained as follows:

- 1. The Influence Between Technical Training Program With Imagery Training and Technical Training Program Without Imagery Training on the Accuracy of Basketball free throw.**

Based on the test result of the first hypothesis, there was a significant difference in effect between group of students who received technical training program with imagery training and group of students who received technical training program without imagery training on the accuracy of free throw. In the group of students who received a technical training program with imagery training, the accuracy of the free throw was better than the group of students who received the technical training program without imagery training.

From the numbers generated in the data analysis, it shows that the average percentage increase in accuracy of free throw produced by the technical training program with imagery training is 1,125 higher than the technical training program without imagery training.

2. The Difference in Accuracy of Basketball free throw Between Students who have High Intelligence and the Ones who have Low Intelligence.

Based on the test result of the second hypothesis, it turns out that there is a significant difference between groups of students who have high intelligence and low intelligence on the accuracy of free throw. The groups of students who have high intelligence have the accuracy of free throw with an average increase of 3.250 which was higher than the group of students who have low intelligence with an average increase of 2.125.

Intelligence is the main asset for the accuracy of free throw. In doing free throw, student used their intelligence, which is the capacity to learn from experience by using metacognitive processes to improve one's thinking skills quickly and carefully in dealing and addressing various life problems so as to be able to adapt to the environment. Intelligence can increase the success rate in achieving the accuracy of free throw by controlling the movements of the techniques so it can be more accurate. Students who have high intelligence have the ability to more quickly master the accuracy of basketball free throw than students who have low intelligence. The success of achieving the accuracy of basketball free throw is influenced by the ability of

students to carry out the motions in an integrated and harmonious manner.

From the numbers generated in the analysis of the data, it shows that the comparison of the average accuracy of free throw in students who have high intelligence is 1.125 which was higher than the group of students who have low intelligence.

3. Effect of Interaction between Imagery Training In Technical Training Program and Intelligence on the Accuracy of Basketball free throw.

From table 4.13 which is the result summary of the analysis of two-factor variants, it appears that the main factors of research in the form of two factors show a significant interaction. In order to test the form of interaction of between A and B, the researcher crate the table 4.15.

Table 4.15 Simple Effect, Main Effect, and Interaction between Factors A and B to the the Accuracy of Basketball free throw.

Factor		A = Imagery Training in Technical Training Program			
		a ₁	a ₂	Average	b ₁ – b ₂
B = Intelligence	Symbol				
	b ₁	2.250	2.000	2.125	0.250
	b ₂	2.000	4.500	3.250	2.500
Average		0.856	2.125	3.250	1.125
a ₁ – a ₂		0.250	2.500	1.125	

The interaction between two research factors can be seen in the following figure 4.11:

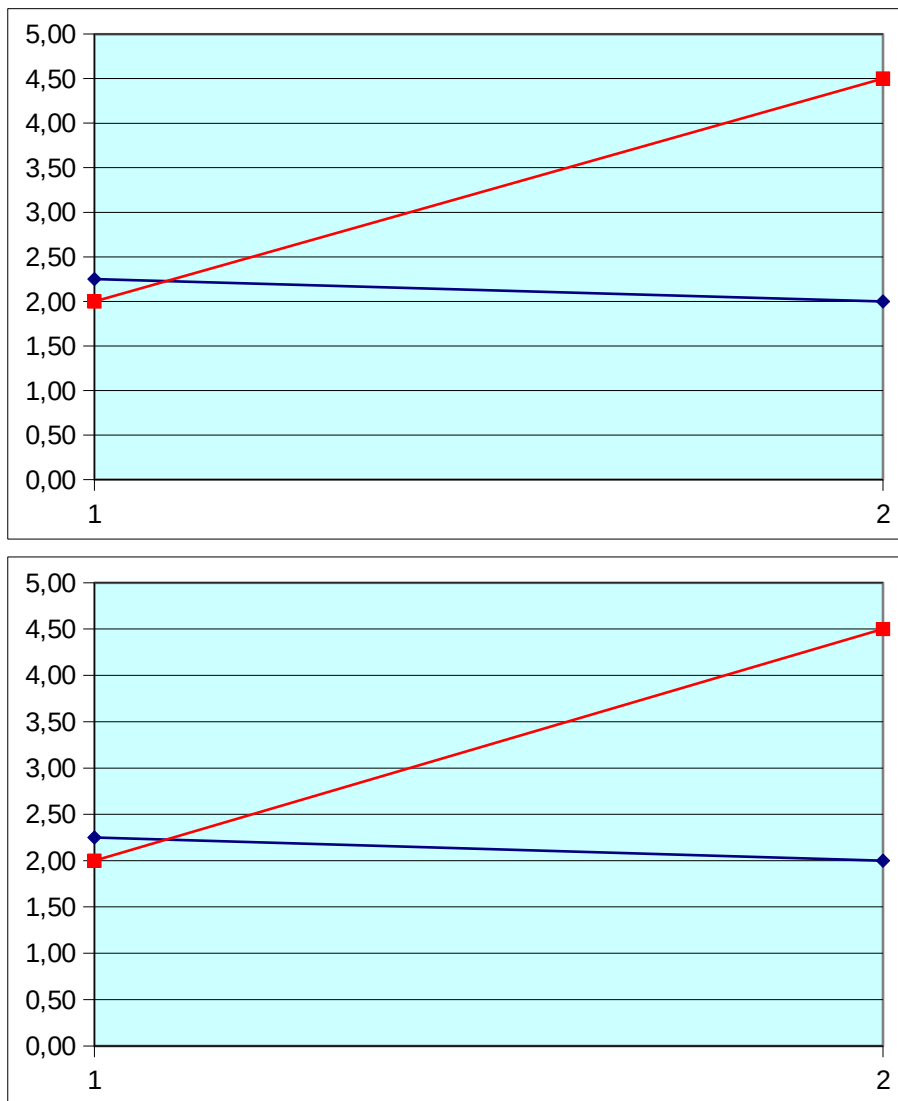


Figure 4.11 Figure of Interaction Change in the Accuracy Value of Basketball free throw

Symbol:

- : a_1 = Technical training program with imagery training
- : a_2 = Technical training program without imagery training
- : b_1 = High intelligence
- : b_2 = Low Intelligence

Based on the figure 4.11 above, the shape of the line of change in the accuracy value of the Basketball free throw is not parallel or crossed. Nevertheless, the line has a meeting point between the use of imagery training in technical training program and intelligence. It means that there are significant interactions between the two of them. The figure shows that intelligence has an influence on the accuracy of free throw.

The effectiveness of imagery training in technical training program on accuracy of Basketball free throw is influenced by the students' intelligence. Based on the results of the analysis in Figure 4.11, it shows that students with high intelligence who are treated to technical training programs with imagery training have the accuracy of free throw of 2,250 which was higher than students with high intelligence who are treated with a technical training program without imagery training of 2,000. Meanwhile, students with low intelligence who are treated to technical training programs without imagery training have the accuracy of free throw of 4,500 which was higher than students with low intelligence who are treated to technical training program with imagery training of 2,000.

CONCLUSION

Based on the results of the research and the results of data analysis, this research has three conclusions:

- 1) There is an influence between technical training programs with imagery training and technical training program without imagery program on the accuracy of Basketball free throw. The effect of technical training program with imagery training is better than the one without imagery training.
- 2) There is difference in the accuracy of Basketball free throw between students who have high intelligence and students who have low intelligence. The students who have high intelligence have a better accuracy of free throw than the students who have low intelligence.
- 3) There are interactions between imagery training in technical training program and students' intelligence on the accuracy of free throws.

- a. Students who have high intelligence are more suitable to technical training program with imagery training.
- b. Students who have low intelligence are more suitable to technical training program without imagery training.

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