

Effect of Exercise Method and Achievement Motivation on Basket Dribbling Skills

Prisca Widiawati*

Sport Coaching Education

Faculty of Sport Sciences

University of Malang

Malang, Indonesia

Prisca.widiawati.fik@um.ac.id

Abstract— The aimed of this study is to determine the effect of structured and play training methods and achievement motivation on basketball dribbling skills. This research was conducted at Basketball Club Athletes. This type of research is an experiment using a 2x2 treatment by level design. The population of this research is all athletes of Fielders Basketball Club, amounting to 121 athletes. Determination of the sample using a purposive sampling technique that is to determine middle-level athletes aged 13-15 years, amounting to 74 athletes. The treatment sample in this study were 40 athletes. The data obtained were then analyzed using two-way analysis of variance (ANOVA) and then proceed with the Tukey test at the significance level $\alpha = 0,05$. The results of this study indicate that (1). The results of basketball dribbling skills in the treatment of structured training methods (A1) are higher than the results of playing methods (A2). (2). There is an interaction effect between the training methods (A) and achievement motivation (B) on basketball dribbling skills. (3). The results of basketball dribbling skills in the treatment of structured training methods with high achievement motivation (A1B1) are higher than the results of high achievement motivation playing methods (A2B1). (4). The results of basketball dribbling skills in the treatment of structured training methods of low achievement motivation (A1B2) are lower than low achievement motivation play method (A2B2).

Keywords— *Structured Training Method and Playing, Achievement Motivation, Basketball Dribbling Skills*

I. INTRODUCTION

Basketball, a high-intensity intermittent team sport, involving frequent jumping, accelerating, decelerating, turning, and pivoting, requires a combination of good fitness and repeated high-intensity bouts of exercise interspersed with brief periods of low-intensity movement [1]. Basketball is a fast, dynamic, interesting and awesome game. Changes in numbers that occur quickly every minute make this game interesting for people watching. Basketball according to [2] Games played by 2 teams, each consisting of five (5) players. With the goal of the two teams being to get a number by putting the ball in the opponent's basket and preventing the opponent from getting a number overseen by the Official (referee), the Official Table and a match supervisor. The team that gets more points at the end of the game is the winner.

Basketball game is an open motion skill open motion skill is a movement skill that is carried out in changing environmental conditions and is strongly influenced by external stimulus [3]. Mastery of basic techniques is the initial factor for having a good basketball team. Then proceed with good physical endurance and cooperation from the team itself by applying the patterns and strategies that have been given. As written in his book, Nuril Ahmadi [4] suggested that to be able to have a reliable basketball team, there are three main factors that must be met, namely: a) Mastery of basic techniques (fundamentals); b) Physical endurance (physical condition); c) Cooperation (patterns and strategies). Dribbling is one of the most enjoyable basketball fundamentals [1]. Basketball dribbling is one of the basic techniques that must be mastered by basketball athletes. In order for a basketball player to shield the ball from an opponent, he or she must be able to dribble equally well with the dominant and the non-dominant hand [5].

II. METHOD

The study was conducted using the experimental method. The experimental method is a research method used to look for the effect of certain treatments [6]. This study consisted of the dependent variable namely basketball dribbling skills and the treatment independent variable was the training method and the moderator independent variable was achievement motivation. The research design used was a 2 x 2 treatment by level design, where each independent variable was classified into 2 (two). Treatment independent variables are classified in two forms of training method (A), namely the structured training method (A1) and the unstructured training method (A2). While moderator independent variables are classified into two levels of motivation (B), namely high motivation (B1) and low motivation (B2).

III. RESULT

A. *There are Differences in Basketball Dribbling Skills in Structured Training Methods and Overall Play Methods.*

Based on the analysis of variance (ANOVA) at a significant level $\alpha = 0.05$, obtained $F_{count} = 48.1049$ and $F_{table} = 4.085$. Thus $F_{count} > F_{table}$ ($F_{count} = 48.1049 > F_{table} = 4.085$). So H_0 is rejected ($F_0 > F_t$) This shows that overall there is a significant difference in the results of basketball dribbling skills between athletes trained with structured training methods and

athletes trained with play methods. As a whole the group trained with the structured training method is better than the group trained with the play method. This is because the mean score of the group of structured training methods is ($= 20.85$; $SD = 3.265$), while the mean score of the play method group is ($= 19.45$; $SD = 2,480$).

TABLE I. SUMAMRY OF RESEARCH RESULT DATA

Achievement Motivation (B)	Exercie Method (A)	
	Structured (A1)	Playing (A2)
High (B1)	$\Sigma X = 237$ $X = 23,7$ $S = 1,251$ $n = 10$	$\Sigma X = 207$ $X = 20,7$ $S = 2,213$ $n = 10$
Low (B2)	$\Sigma X = 180$ $X = 18,0$ $S = 1,699$ $n = 10$	$\Sigma X = 182$ $X = 18,2$ $S = 2,149$ $n = 10$
Total	$\Sigma X = 417$ $X = 20,85$ $S = 3,265$ $n = 20$	$\Sigma X = 389$ $X = 19,45$ $S = 2,480$ $n = 20$

B. There is an Interaction between the Training Method and Achievement Motivation Against Basketball Dribbling Skills

Based on the analysis of two-way variants, the interaction between the training methods and achievement motivation on basketball dribbling skills is seen in the Anava calculation table above. Price for Fo interaction (AXB) = 7.3259 and Ft = 4.085. It appears that Fcount > Ftable (Fcount = 7.3259 > Ftable = 4.085), so H0 is rejected. and H1 accepted thus it can be concluded that there is an interaction between training methods and achievement motivation towards basketball dribbling skills.

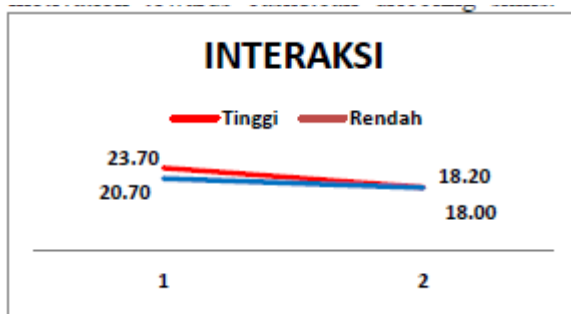


Fig. 1. Interaction between Exercise Method and Achievement Motivation

C. Differences in basketball dribbling skills between Structured Training Methods and Playing Methods for High Achievement Motivation Groups

Structured and playing training methods make a significant difference to basketball dribbling skills for groups with high achievement motivation.

The difference in the value of the group of structured training methods and high achievement motivation (P3) is higher compared to the group of play methods and high

achievement motivation (P4), obtained by $Qh = 7.1770 *$ and $Qt = 3.89$. Thus Qh is greater than Qt, so H0 is rejected. Based on the calculation results, the average value of athletes with high achievement motivation using structured training methods ($= 23.7$; $SD = 1.251$) is higher than playing methods that have high achievement motivation ($= 20.7$; $SD = 2.213$).

D. Differences in basketball dribbling skills between Structured Training Methods and Playing Methods for Low Achievement Motivation Groups

Structured and play training methods make a significant difference to basketball dribbling skills for groups who have low achievement motivation, but the difference in results is not significant.

The results of the structured training method group and low achievement motivation (P5) are lower than the play methods and low achievement motivation (P6) group results, $Qo = -0.4785$ and $Qt = 3.89$. That is, the data is no reason to accept H0, so it can be interpreted that there are differences in basketball dribbling skills with the results of structured training methods that have low achievement motivation, lower than the results of playing methods that have low achievement motivation at the Fielders Rawamangun Basketball Club.

IV. DISCUSSION

Basketball training gets different aspects and it adapts accordingly to the training category [7]. The structured training method is the presentation of training material that is given systematically, planned, simultaneously and overall with the process of improvement in an exercise that results in a relationship between stimulus dan respon. Physical preparation is a factor of sports preparation consisting in systematic and rational practice exercises, physical and motor skills development and education [8]. Training with structured training methods is very useful in motor teaching. In the structured training method during activities, athletes are well organized starting from warming up, fundamental / basic, until the related game is observed so that there are improvements in doing motor tasks is about the results of the exercise obtained. In the method of playing, to improve basketball dribbling skills is done starting from warming-up, and directly doing game related. Warming (warming-up) aims to physiologically prepare the work of the body's system (increase muscle flexibility, increase joint space to be broad, the work of the heart and lungs to be ready). Whereas psychologically the aim is to increase concentration and reduce anxiety. This training method can be applied to the play process which is a way to practice techniques that are carried out in the form of a game. The play form method is a method that teaches a psychomotor skill by demonstrating a technique and then practicing it in the game process. Where teaching movement exercises a skill is learned starting from the beginning of the movement where there is a process of playing.

V. CONCLUSION

Both training methods applied have an impact on basketball dribbling. But from the results, structured training methods are

more effective and better in improving basketball dribbling training at Fielders Basketball Club.

REFERENCES

- [1] Z. Kong, F. Qi, and Q. Shi, "The influence of basketball dribbling on repeated high-intensity intermittent runs," *J. Exerc. Sci. Fit.*, vol. 13, no. 2, pp. 117–122, 2015.
- [2] P. Perbasi, *Peraturan Resmi Pemain Bola Basket*. Jakarta: PB.Perbasi Fiba Official Basketball Rules, 2010.
- [3] Widiastuti, *Belajar Keterampilan Gerak*. Jakarta: FIK UNJ, 2003.
- [4] N. Ahmadi, *Permainan Bola Basket*. Solo: Era Intermedia, 2007.
- [5] T. Stöckel, M. Weigelt, and J. Krug, "Acquisition of a complex basketball-dribbling task in school children as a function of bilateral practice order," *Res. Q. Exerc. Sport*, vol. 82, no. 2, pp. 188–197, 2011.
- [6] Sugiono., *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, 2010.
- [7] Daniela, Moanță Alina, T. Virgil, and G. I. Gabriel, "The methodological overview for the technical-tactical training in basketball," *Procedia-Social Behav. Sci.*, vol. 93, pp. 2173–2179, 2013.
- [8] A. D. Moanță, I. G. Ghițescu, and V. Tudor, "Aspects of the 30 m Speed Development in Junior Basketball Players," *Procedia - Soc. Behav. Sci.*, vol. 117, pp. 50–54, Mar. 2014.