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Affecting Factors of Shooting Ability In Basketball Games: Coordination And Concentration

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Abstract

The shooting technique is a movement in which a player shoots the ball toward the opposing team's basketball ring. In shooting, it is necessary to have optimal physical conditions and psychological aspects. Eye-hand coordination and concentration as support to perform a series of movements when shooting. This study aims to determine the coordination and concentration hitting in basketball games for physical education students at the University of Muhammadiyah Palopo. The sample is 29 students who take class A1 basketball courses in semester 3. The results show that the correlation between hand-eye coordination and shooting ability had a significant relation of $0.000 > 0.05$. The correlation between concentration with shooting ability is substantial at $0.000 > 0.05$. It can be concluded that coordination and concentration are strongly related to basketball shooting ability

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INTRODUCTION

Sport is one of the aspects that can bring glory to Indonesia so that it can support sports achievements which in turn can increase the spirit of Indonesian nationalism (Warta, Dadang., Kusuma, 2018). Sport is one of the activities needed by everyone so that the body

remains healthy, energetic, and fit for daily activities (Nurrochmah & Yusuf, 2021). Therefore training is designed to help athletes improve their abilities and achievements as much as possible (Hidayat et al., 2021). One of them is the game of basketball. The basketball game has many complex rules, and teams with

various basic techniques and rules have names and explanations for each move (Pambudi & Suharjana, 2018). Since basketball is a team sport, this influence will be seen in their games (Noah, 2019).

Basketball is a challenging sport that requires a wide range of physical fitness abilities (Hidayatullah, 2018). Basketball is a team sport and an individual game where every player is trained to become a better but selfless team member (Gianusha & Supriyadi, 2019). Since basketball is a team sport, effective social interaction is needed to build a strong team (Hamidi et al., 2020). Basketball is one of the most popular sports in the world, with fans of all ages believing it is fun, competitive, educational, entertaining, and healthy (Siregar & Abady, 2019). The game's object is for the team that puts the ball into the opposing team's ring while preventing the other team from doing the same (Rachman & Kartiko, 2021).

Shooting is any attempt to put the ball into the opponent's ring/basket to score (RN Cahya et al., 2021). Every athlete must be good at shooting because it is necessary to score points when playing basketball (Ramadan & Irawan, 2022). Shooting is a very important skill in basketball (Ramli, 2018). There are various basic shooting techniques: free throws, three-point shots, jump shots and hook shots (Fadhil Umam & Nuzuli, 2019).

Strong hand-eye coordination and shooting are also important. Athletes' ball direction and shooting quality are affected by their eye-hand synchronization (Subekti,

2019). To perform throwing or shooting, arm muscle strength and eye-hand coordination must be well coordinated (Mahyuddin & Sudirman, 2021). Good eye-hand coordination is necessary when shooting because a talented shooter always maintains that the arms and hands must be above the head and maintain focus to keep the following movement until the ball hits the ring (Sawiya, 2022). Coordination between body parts is very important to master basic shooting techniques, including eye-hand coordination (Akhmady et al., 2020).

Concentration is the ability to focus on one thing while ignoring distractions (Naimatul, 2020). Focused athletes can break their opponent's tactics during training and competition and score more for their team (RN Cahya et al., 2021). Basketball requires concentration to correctly support and direct the shot (M. Mochamad & H. Wismanadi, 2020). To shoot at your best, you need skill, habit, relaxation, concentration, and confidence (Ramadan et al., 202; Boy et al., 2019). Previous research results (Mahyuddin & Sudirman, 2021) discovered that there is a relation between hand-eye coordination and arm-muscle strength in shooting skills in the basketball game of Kartika XX-1 Makassar high school students; this was determined by the results of multiple regression analysis that the value (R) = 0.740.

Based on the results of observations made on students of Muhammadiyah Palopo University class A1 semester 3 in basketball learning courses for basic shooting technique materials, there were still many students who

shoot with less focused, not directed so that the ball that is shot does not reach the basketball ring and even passes through. Lack of level of coordination and concentration possessed by students in the implementation of shooting on basketball material. The study aims to determine the correlation between eye-hand coordination and concentration on shooting ability.

The novelty of this research is adding a concentration variable to measure the level of shooting ability. Because in addition to the psychological aspect that determines a person's success in shooting, the psychological aspect is also necessary for basketball games, especially shooting techniques.

METHODS

This study uses a descriptive correlational quantitative method to know the

correlation between eye-hand coordination, concentration (Ramadan & Juniarti, 2020), and shooting ability in the basketball game of students in the physical education study program. This research was conducted in the Muhammadiyah Palopo University basketball court according to the lecture schedule on Tuesday at 07.30 WITA. The sample in this study is 29 students of class A1, semester 3, who attended basketball class.

The research instrument is eye-hand coordination using a ball throw and catch test 20 times using the right and left hands alternately according to the specified target. Concentration using a questionnaire via google form

<https://forms.gle/JLCPBw8xArMZqRKs6> were distributed to the respondents, while the shooting ability used a ball shooting test in the basketball ring for 1 minute.

Table 1 Concentration's Questionnaire Grid

Variable	Indicator	Statement Number	
		+	-
Concentration	1. Attention	1,2,3	4,5,6
	2. Focus	7,8,9	10,11,12
	3. Consciousness	13,14,15	16,17,18
	4. Focus	19,20,21	22,23,24
	Attention	12	12
	Amount	24	

The type of data used in this study is secondary data by measuring the respondents of students in physical education study programs in basketball courses. The data analysis technique used descriptive analysis, normality test, and regression test. All data were analyzed using the SPSS version 23.00 application.

FINDINGS AND DISCUSSION

Findings

The description of the descriptive analysis of the students in the physical education study program in the basketball course. The descriptive analysis includes mean, median, standard deviation, range,

minimum and maximum values. It is discovered that the eye-hand coordination test has a mean value of 15.28, a median value of 15.00, a standard deviation value of 2.202, a range value of 8, a minimum value of 11, and a maximum value of 19. The concentration test has a mean value of 62.59, a median value of 61.00, a standard deviation value of 6.738, a range value of 22, a minimum value of 51, and a maximum value of 73. Shooting test with a

mean value of 11.14, a median value of 11.00, a standard deviation value of 5.330, a value of range 19, a minimum value of 3, and a maximum value of 22.

It is discovered that the significant value of eye-hand coordination is $0.131 > 0.05$. The significant value of concentration is $0.158 > 0.05$. The significant value of shooting is $0.306 > 0.05$. Then the three variables follow a normal distribution or normally distributed.

Table 1. Product Moment Correlation Results

Correlation	Eye-Hand Coordination	Concentration
Shooting	0.693	0.736
Sig.	0.000	0.000
N	29	29

Table 1 shows that shooting has a significant relation with eye-hand coordination with a significant value of $0.000 > 0.05$. Shooting has a significant relation with concentration, with a significant value of $0.000 > 0.05$. Then it was decided that H_a was accepted, which means there is a significant relation between variables.

Discussion

The shooting technique is a movement in which a player shoots the ball toward the opposing team's basketball ring. In shooting, it is very necessary to have optimal physical conditions. This physical condition includes eye-hand coordination as a support to perform a series of movements when shooting (Mahyuddin & Sudirman, 2021). Basketball players are skilled if they can master one of the basic techniques of the game, such as shooting (Okta Milia & Aziz, 2020). Shooting

is the ultimate goal in basketball; therefore, the only way for the team to score points (Setyaji & Hariyanto, 2018; Iskandar & Ramadan, 2019). At the time of the shooting, athletes often feel disturbed or unfocused while playing, so concentrating is necessary. Thus the pressure can be overcome, and basketball players can relax while shooting the basketball (Sitepu & Nasution, 2020; Ramadan & Ningrum, 2019). This is due to a decrease in mental health, which causes a decrease in player concentration (Pratama et al., 2020). Basketball players must pay close attention to the parts involved in shooting in a basketball game: the hands, feet, body, and arm (Reski, 2021).

Hand-eye coordination skills are very important in basketball to perform various movements, including shooting. Eye-hand coordination is one of basketball's most important physical abilities, as explained

above. Many movements in playing basketball require eye-hand coordination, including when shooting (Putri, 2019). Good eye-hand coordination can help players improve their playing skills, especially shooting (Support, 2020). The results of this study provide a plausible explanation for the relationship between shooting and eye-hand coordination.

Good and correct eye-hand coordination will produce the right throw as well; therefore, the eye is the main function holder, and the hand's function of carrying out movements in order from the brain nerves. Moreover, the success of the two organs cannot be separated from concentration (Nurfatoni & Hanief, 2020). If eye-hand coordination is good, the movements will become efficient and effective because it will take longer and not achieve the desired goal (W.D windo & Lismadina, 2019). Based on the explanation above, it can be concluded that playing basketball requires explosive power of the arm muscles and eye-hand coordination when shooting (Saputra & Mahendra, 2019). The results of the analysis provide a finding that hand-eye coordination has a direct effect on shooting results. Based on these findings, it can be concluded that hand-eye coordination directly affects shooting results (Ramadan & Iskandar, 2018; Agustiawan, 2020).

Concentration is the ability to focus the mind with awareness on an object at a certain time that is not disturbed by internal or external stimuli (Isnaini, 2021). A person's concentration level significantly influences his performance, both in terms of academic success at school and non-academic success or

participating in sports activities, one of which is accuracy or shooting in a basketball game.(YI Light & Tuasikal, 2017). The first thing to prepare for every successful shooting is usually concentration. Concentration helps physically and mentally in shooting smoothly (Rosmi, 2017). The athlete's level of concentration when shooting can be affected by the loss of focus due to interfering factors, both internal and external (Zummah & Achmad, 2020). As the definition above, concentration is the ability to mentally concentrate on one thing while ignoring other things that are not related to it (Naimatul, 2020).

CONCLUSION

The results of this study provide an overview of basketball learning for students at the physical education study program of Muhammadiyah Palopo University. Based on the findings, eye-hand coordination and basketball shooting ability are significantly related to eye-hand coordination and concentration. Because in addition to the psychological aspect that determines a person's success in shooting, the psychological aspect is also very necessary in basketball games, especially shooting techniques.

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