



PROCEEDINGS

THE YOGYAKARTA INTERNATIONAL SEMINAR ON HEALTH, PHYSICAL EDUCATION, AND SPORTS SCIENCE.

Powered by: *Faculty of Sport Sciences, Yogyakarta State University*

new issue



Yogyakarta State University, Indonesia | Contact Information Center: +62274 550224 (PR Office) | Email: info@yishpepp.uny.ac.id | Website: www.yishpepp.uny.ac.id

<http://yishpepp.uny.ac.id/proceeding/details/H3TYNEVO>

THE EFFECT OF DOMINANT PHYSICAL COMPONENTS, AND SELF-BASKET PLEEMBAN ATLET PALEMBANG TOWN SUCCESS FREE THROW

Bayu Hardiyono

University of Bina Darma
bayuhardiyono@gmail.com

Abstract

Objectives: This study aims to determine how much influence between the four independent variables of arm muscle power, leg muscle power, elasticity of the wrist, confident with the dependent variable of free throw success.

Methods: The method used in this research is (1) phat analysis (2) simple correlation (3) coefficient of determination. The population in this study is 30 athletes of Palembang city.

Results: 1). There is a direct influence of arm muscle power on the success of free throw with a value of 0.756 (2). There is a direct influence of leg muscle power on the success of free throw with a value of 0.675 (3). There is a direct influence between the flexibility of the wrist on the success of a free throw with a value of 0.673 (4). There is a direct influence between confidence in the success of free throw with a value of 0.769 (5). There is a direct influence between arm muscle power to confidence with a value of 0.475 (6). There is a direct influence of leg muscle power on self-esteem with a value of 0.587 (7). There is a direct influence between the flexibility of the wrist on confidence and the value of 0.684 (8). There is a direct influence of arm muscle power on leg muscle power with a value of 0.573 (9). There is direct influence between leg muscle power on the flexibility of the wrist with a value of 0.765 (10). There is a direct influence between the flexibility of the wrist on the arm muscle power with a value of 0.931.

Conclusion: There are significant lasung influence, from 10 problem formulation shown in this research, the influence of lasung between the flexibility of the wrist to the arm muscle power most greatly affect the success of free throw with value 0,931.

Keywords: power muscle arm, leg muscle power, elasticity of wrist, confidence and success free throw

INTRODUCTION

The game of basketball is one of the most popular sports in the world, the United States can be regarded as the country's number one basketball fan. United States basketball competition, the NBA (National Basketball League) is always waiting for fans around the world. In Indonesia alone, more and more people are interested in this sport. This can be evidenced by the emergence of many communities of basketball fans and basketball competitions in Indonesia.

Basketball games in Indonesia are well known in the Dutch colonial era, at that time in Yogyakarta and the solo for the first time basketball games competed diajang highest sports event in Indonesia is better known national sports week (PON). The development of basketball game very rapidly in Indonesia, this proved the number of regional and national championships held. Many young people come to adults, both male and female in favor of sports basketball.

Basketball games include a complex game movement, meaning the movement consists of a combination of elements that are coordinated neatly so as to play the ball well. Stamina, autonomous muscle coordination, agility or mobile agility and fast thinking ability are prerequisites for being a reliable

player. Before throwing a ball, a player must be able to hold the ball well. If the wrong way to hold the ball, of course he can not throw it well. Before he receives the ball, must be able to catch the ball well in order to be able to handle the ball well.

Shooting is the ultimate goal of every basketball game. Mastery of this technique has an important role in the game of basketball, because shooting is the key and the ultimate goal that can determine success in the game of basketball. The success of a team in this game is always determined by its success in firing. To be able to succeed in the shoots needs to be done the correct techniques.

In the game basketball shot divided into two parts, namely the field and free throw. Field shot is a shot attempt to enter the ball into the basket while the game is in progress, field shots can be done all players who are in the game while doing a free throw inversely proportional, free throw is a prize given by the referee to the player to score a number in the right position behind the free throw line, Giving free throw is usually given if the player opponents violate the area forbidden. Basketball player sometimes gets difficulty in doing free throw, according to the players is not easy to do the free throw, most of the players tend to be difficult and sometimes weak at the time of doing a free throw. This is due to the fact that he does not believe he is a basketball player or a distraction from the viewers who support the opposing team during the game, so a player can not easily perform a free throw.

This problem is also a problem in the basketball athletes Palembang city, athletes basketball city of Palembang get difficulty when doing free throw. Based on observations in the field during exercise, especially when doing free throw shots made athletes basketball city of Palembang result is not maximal. it is worthy of attention, the outcome is beyond the expectations of the city of Palembang Perbasi. In other words the free throw results of athletes palembang city is still lacking, whereas the training process and guidance of the dominant physical condition (power muscle arm, leg muscle power, wrist flexibility and confidence).

According Harsono (1988: 200) power is the ability of muscles to exert maximum power in a very fast time. Power is one of the most important components of motion to perform very heavy activities because it can reflect how strongly people can throw. This includes shooting on a basketball game. Based on the description above, can be drawn an understanding that arm power is a muscular ability of the arm to perform activities quickly and strongly to perform activities quickly and strongly to generate power. According to Mahendra (2000: 35) strength is the amount of power that can be produced by a muscle when the muscle is contracted. Power is also called the necessary power in the sport of basketball games.

The muscle strength of the arm referred to in this study is the ability of the muscles that exist in the strong and fast arms in performing the free throw, the necessary energy source is mainly obtained from the strength of the muscles in the arm. Therefore, a good power is needed to produce a good shot while pushing the ball so that in addition to the exact direction of the target, the ball jga to the destination.

Power or explosive power is the ability of muscle work (effort) in units of time (seconds). (manual of human physiology practicum, 2004: 45). According to Ismaryati (2006: 59) that power concerns the strength and speed of muscle contraction is dynamic and explosive and involves the expenditure of maximum muscle strength in the fastest time. The definition of explosive power usually refers to a person's ability to perform maximum strength with the effort deployed in a short time.

The definition of explosive power usually refers to a person's ability to perform maximum strength with the effort deployed in a short time. Explosive power is often called explosive power, or muscular power. According to Suharno HP (1981: 37) points out that: "explosive power is the ability of a muscle or a group of muscles to overcome the load with high strength and speed in one complete motion". According to M.Sajoto (1988: 58), that "muscular power (muscular power) is the ability of a person to exercise maximum strength, with effort deployed in the shortest time.

In doing a free throw is needed to work out legs to help in encouraging a good shot. The precision for performing an optimal jump of the sting depends on the leg muscle sections that each basketball player has in mind. The larger the leg muscle power the player may have, the thrust of the limbs will be maximized, which will eventually enshrine the free throw in accordance with the direction of the basket basket. At the time of bolting the ball to the opponent's basket, it takes the muscle of the arm muscle so that the arm can move perfectly so that the shot will fit the target. From the description is thought to power the arms and leg muscle power has contributed to the free throw skills.

Flexibility is an important factor in all aspects of human movement. Flexibility or flexibility is a necessary requirement automatically for the ongoing movement in everyday life including when exercising. Of the many components of physical fitness, the flexibility for an athlete is an absolute component that is necessary and very dominant to be the basis of almost every motion technique. Spasticity in sports activities is needed, because with a good flexibility, athletes can perform various tasks of movement with efficient and effective. Flexibility can be defined as a series of movements in a joint. It deals with the movement and limitations of body or body parts that can be bent or twisted with flexion and muscle stretching devices. Flexibility refers to the extent of movement of the joints and muscles of the body. Sajoto states that flexibility (flexibility) is the effectiveness of a person in adjusting for all activities with broad body stretching.

The wrist is one of the wrist joints of the arm, exactly is the wrist joint (art radiocarpal). In basketball games, the flexibility of the wrist is used to perform passing, catching, shooting and dribbling. In the discussion of the term flexibility includes two interrelated matters: flexibility closely tied to the state of bones and joints, while the flexibility is closely related to the elasticity of the muscles, tendons and ligaments. For that purpose both flexibility and flexibility) will ensure the width of motion in the joints and facilitate the muscles, tendons and ligaments and joints when, in motion.

Self confidence is the belief in one's own ability to achieve a certain achievement and if the achievement is high then the individual will be more self-confidence. Self-confidence will create a sense of security that can be seen from the attitude and behavior that looks calm, not easy to hesitate. Not easily nervous, and firm. A confident athlete (full-confidence) usually sets targets according to his or her capabilities so as to strive to achieve those targets. In the event of failure, will be faced and accepted with the field of chest tampa must be frustrated, Apta Mulsidayu (2013: 102). According to Ria Lumintuarso (2013: 119) Confidence is the result of a goal match and the ability of athletes will have self confidence if they believe in the ability to achieve goals (you only achieve what you believe). Confidence is the internal control of one's feelings about the existence of strength in himself, awareness of his ability, and responsible for the decisions he has set, Komarudin (2014: 69).

Based on the above description can be concluded that confidence is very important to have every individual basketball players, with high confidence people become convinced of the success of free throw shots.

METHOD

Based on the study of problems to be studied and objectives to be achieved, then the method used in this study is the test is the right method, with path analysis techniques for data analysis. This study involves four independent variables of arm muscle power, leg muscle power, flexibility of the wrist, confidence, .. While the dependent variable is the success of free throw. The linkage between the independent variables and the dependent variable. In accordance with the study design, there are five kinds that must be collected: (1) data on the success of free throw (2) arm muscle power data (3) data muscle power tungkai (4) data wrist flexibility and (5) confident. To obtain data of free throw success, arm muscle power, tungkai muscle power, wrist flexibility, and self-confidence. Using test and measurement. According to the type of given variables involved in this research is available, then to obtain the data processed in this study. then the instrument used: (1) free throw test (2) test two-hand

medicine ball put (3) test vertical power jump, (4) test wrist flexibility with goniometer tool (5) test questionnaire.

In this research, the data analysis technique used in testing the hypothesis of this research is (1) path analysis (2) simple correlation (3) coefficient of determination. Prior to testing the hypothesis is done priority testing is the normality test by using lilefors test and homogeneity test by using kolmogorof smirnov as route path analysis. Besides that, the significance analysis with $\alpha = 0.05$ influence the independent variable to the dependent variable either together or individually.

Target population (Target Population) in this study is all athletes basketball in the city of Palembang which amounted to 30 athletes. Since the population is only 30 athletes, the entire population is subjected to research. The sample was taken from population with total sampling which is all athletes basketball city of palembang which amounted to 30 athletes.

RESULTS AND DISCUSSION

The study was based on five data as predetermined variable, ie free throw success variable (Y) using free throw test, leg muscle power (X1) using two-hand medicine ball put test, leg muscle power (X2) using vertical test power jump, wrist flexibility (X3) Test using goniometer tool, confident (X4) test questionnaire. This study examines the effect of exogenous and endogenous variables. This research study was conducted to answer the problems revealed first. As for the study in this research to know: (1) direct influence of arm muscle power to the success of free throw, (2) direct influence of tungkai muscle power on free throw success (3) direct influence of wrist flexibility on free throw success, (4) (5) direct influence of leg muscle power on self-confidence, (7) direct influence of wrist flexibility on self-confidence, (8) direct influence of power on the arm arm muscle to leg muscle power, (9) direct influence of leg muscle power on elasticity of the wrist, (10) direct influence of wrist flexibility on arm muscle power.

Table 1. Data Description

No.	Deskripsi Data	power muscle arm	leg muscle power	elasticity of wrist,	confidence	success free throw
1	the number of samples	30	30	30	30	30
2	value manimum	10	10	9,18	126,53	9
3	the maximum value	41	30	30,05	171,40	34
4	range	31	20	20,87	44,87	23
5	Mean	21,103	20,931	18,720	134,506	21,931
6	standard deviation	9,6189	5,7874	6,8521	6,0688	7,7502
7	variance	92,524	33,493	46,951	36,830	60,065

Based on the results of data processing using SPSS 23, then obtained the results of hypothesis testing in this study, path analysis based on theoretically formed causal model. The theoretical causal model is as follows:

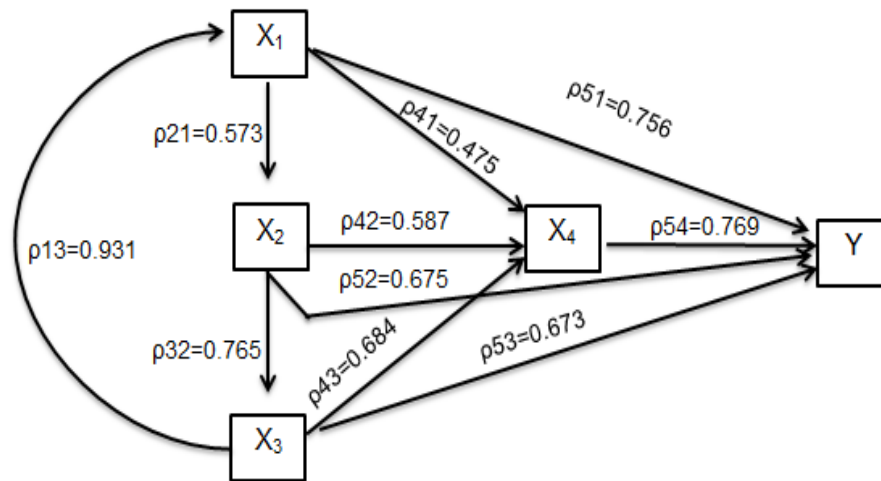


Figure 1. Relationship Structure X 1 X 2 X 3 and X 4 Against Y

The above causal model there are 10 path coefficients namely, ρ_{51} , ρ_{52} , ρ_{53} , ρ_{54} , ρ_{41} , ρ_{42} , ρ_{43} , ρ_{21} , ρ_{32} , ρ_{13} . Each path coefficient will be tested by using t-test (t-test). If the value of t arithmetic > T table value for each path coefficient then it can be concluded that the causal model of the path coefficient is significant. Based on the results obtained after doing the model analysis used as the basis in answering the hypothesis and draw conclusions in this study. The explanation of the hypothetical answer can be described as follows:

Direct Effect of arm muscle power (X1) on the success of free throw (Y)

From the results of path analysis, the direct influence of arm muscle power (X1) on the success of free throw (Y), coefficient value of 0.756 where the coefficient of t count is 6, 137 while the ttable value at dk = 29 for $\alpha = 0,05$ is 1, 69 therefore the value of tcount coefficient is greater than ttable then H0 is rejected and H1 is accepted thus arm muscle power (X1) has a positive direct effect on the success of free throw (Y) is acceptable.

Direct influence of leg muscle power (X2) On the success of free throw (Y)

From the calculation of path analysis, the direct influence of leg muscle power (X2) on the success of free throw (Y), coefficient value of 0.675 where the coefficient tcount of 4.787 while the ttable value at dk = 29 for $\alpha = 0.05$ of 1.69 by therefore the value of tcount coefficient is greater than ttable value then H0 is rejected and H1 is accepted thus leg muscle power (X2) has a positive direct effect on the success of free throw (Y) is acceptable.

Direct Effect of Wrist flexibility (X3) To free throw (Y).

From the analysis of path analysis, the direct influence of the flexibility of the wrist (X3) on the success of free throw (Y) coefficient value of 0.673 where the coefficient tcount of 4.783 while the ttable value at dk = 29 for $\alpha = 0.05$ of 1.69 because the value of tcount coefficient is greater than ttable then H0 is rejected and H1 is accepted thus wrist flexibility (X3) has a direct positive effect on free throw (Y) is acceptable.

Direct Self - Confidence Influence (X4) Against free throw (Y).

From the results of path analysis analysis, the direct influence of self-confidence (X4) to the success of free throw (Y), the coefficient value of 0.769 where the coefficient tcount of 6.241 while the ttable value at $dk = 29$ for $\alpha = 0.05$ of 1.69 because the value of tcount coefficient is greater than ttable then H_0 is rejected and H_1 is accepted thereby self-confidence (X4) has a positive direct effect on the success of free throw (Y) is acceptable.

Direct Influence of arm muscle power (X1) Against Self-Confidence (X4).

From the analysis of path analysis, direct influence of arm muscle power (X1) to confidence (X4), coefficient value of 0,475 where coefficient tcount 2,937 while ttable value at $dk = 29$ for $\alpha = 0,05$ equal 1,169 therefore value thitung coefficient is greater than ttable value then H_0 is rejected and H_1 is accepted thus arm muscle power (X1) has positive direct effect on confidence (X4) is acceptable.

Direct Influence of Limb Muscle Power (X2) Against Self-Confidence (X4)

From the results of path analysis calculation, direct influence of leg muscle power (X2) to confidence (X4), coefficient value of path equal to 0,587 where coefficient tcount equal to 3,775 while ttable value at $dk = 29$ for $\alpha = 0,05$ equal to 1.69 because the value of tcount coefficient is greater than ttable then H_0 is rejected and H_1 is accepted thus leg muscle power (X2) has a positive direct effect on self confidence (X4) is acceptable.

Direct Effect of Wrist flexibility (X3) Against Self-Confidence (X4).

From the analysis of path analysis, the direct influence of the flexibility of the wrist (X3) to the confidence (X4), the coefficient value of 0.684 where the coefficient tcount of 4.893 while the ttable value at $dk = 29$ for $\alpha = 0.05$ of 1.69 because the value of tcount coefficient is greater than ttable then H_0 is rejected and H_1 is accepted so that the flexibility of the wrist (X3) has a direct positive effect on self-confidence (X4) is acceptable.

Direct influence of arm muscle power (X1) on leg muscle power (X2).

From the calculation of path analysis, the direct influence of arm muscle power (X1) on leg muscle power (X2), the coefficient value of the path of 0.573 where the coefficient tcount of 3, 743 while the ttable value at $dk = 29$ for $\alpha = 0.05$ of 1, 69 therefore the value of tcount coefficient is greater than ttable then H_0 is rejected and H_1 is accepted thus arm muscle power (X1) has a positive direct effect on leg muscle power (X2) is acceptable.

Direct influence of leg muscle power (X2) Against elasticity of the wrist (X3)

From the calculation of path analysis, the direct influence of leg muscle power (X2) on the flexibility of the wrist (X3), the coefficient of the lane of 0.765 where the coefficient tcount of 6.235 while the ttable value at $dk 29 =$ for $\alpha = 0.05$ of 1.69 by therefore the coefficient value of tcount is bigger than ttable then H_0 is rejected and H_1 is accepted thus leg muscle power (X2) has positive direct effect on wrist flexibility (X3) is acceptable.

Direct Effect of Wrist flexibility (X3) Against arm muscle power (X1).

From the results of path analysis calculation, the direct influence of the flexibility of the wrist (X3) on the arm muscle power (X1), the coefficient value of 0.931 where the coefficient tcount of 12.045 while the ttable value at $dk = 29$ for $\alpha = 0.05$ of 1.69 by therefore the value of tcount coefficient is greater than ttable then H_0 is rejected and H_1 is accepted so that the flexibility of the wrist (X3) has a direct positive effect on arm muscle power (X1), is acceptable.

CONCLUSIONS AND RECOMMENDATIONS

The conclusion is based on the research findings with five variables, namely exogenous variables, one intervention variable and one endogenous variable. Exogenous variables consist of arm muscle power (X1), leg muscle power (X2), wrist flexibility (X3) and confident intervention variables (X4), while endogenous variables are the success of free throw (Y). based on data analysis and statistical calculation in the discussion before it can be concluded as follows:

1. There is a direct influence between arm muscle power on the success of free throw.

2. There is a direct influence between leg muscle power on the success of free throw.
3. There is a direct influence between the flexibility of the wrist to the success of the free throw.
4. There is a direct influence between confidence in the success of free throw.
5. There is a direct influence between arm muscle power to confidence.
6. There is a direct influence of leg muscle power on self-confidence.
7. There is a direct influence between the flexibility of the wrist against self-confidence.
8. There is a direct influence between arm muscle power on leg muscle power.
9. There is an immediate influence between leg muscle power on the flexibility of the wrist.
10. There is a direct influence between the flexibility of the wrist on the arm muscle power.

RECOGNITION.

Thanks to all parties who assist in the completion of this research, especially to PERBASI Palembang city has provided facilities for this research and basketball athletes Palembang city is willing to be a sample of this research.

REFERENCE

- Apta, Mulsidayu, Sport Psychology, (Jakarta: Earth Aksara.2014).
- Harsono. 1988. Coaching and Aspects of Psychological Aspects in Coaching. Jakarta: Dedikbud.
- Human Physiology Team. Human Practical Physiology Instructions. Yogyakarta: FIK UNY.
- Ismaryati. (2006). Sports Measurement Test. Surakarta: UPT Publisher and Printing UNS.
- Komarudin, Sport Psychology, (Bandung: Teens Rosdakarya.2013)
- Lumintuarso, Lia, Sports Coaching Theory (Jakarta: LANKOR.2013).
- Mahendra, A. 2000. Gymnastics. Jakarta: Ministry of National Education Directorate General of Primary and Secondary Education Part of Upgrading of JSS Teachers D-III Equivalent.
- M.Sajoto. (1988). Coaching Physical Conditions In Sport. Jakarta: Department Education and culture. M. Sajoto. Development of Physical Condition in Sports (ng: Dahara Prize, 1995).
- Suharno HP, (1981). Methodology Coaching Volleyball Game. Yogyakarta.