

# Contribution to Power Explosive Leg Muscles, Eye Hand Coordination, Confidence and Shoot Skills Underring Basketball in High School Student

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#### Abstract.

The problem of this study was to determine whether or not the contribution between the contribution of leg muscle explosive power, eye-hand coordination skills and confidence to shoot underring basketball high school students Development Laboratory Padang. Therefore, this study aims to look at the contribution of the contribution of leg muscle explosive power, eye-hand coordination skills and confidence to shoot underring basketball high school students Development Laboratory Padang. The research method is an associative quantitative methods, survey methods, and analysis techniques lanes. Research was conducted on high school students Development Laboratory Padang that the number of samples of 30 people. Data analysis technique used is the technique percentage. The results showed: 1) Power explosive leg muscles contribute directly to shoot underring with a percentage of 25.40%. 2) Contributions hand-eye coordination to contribute directly to the shoot underring with a percentage of 36.48%. 3) Contributions confident contribute directly to shoot underring with a percentage of 75.86%. 4) Contributions of leg muscle explosive power through a confident contribute indirectly to shoot underring with a percentage of 40.06%. 5) Contributions eyehand coordination with confidence contribute indirectly to shoot underring with a percentage of 12.60%. 6) Contribution of leg muscle explosive power and handeye coordination through confidently contribute indirectly to shoot underring with a percentage of 94.67%.

#### Keywords: Shoot Skills, Underring, Basketball.

## 1 Introduction

Sport is part of daily human activities that are useful to form a healthy body and spirit. Until now, sports have had a positive and real influence on improving the health of the community [1]. In Indonesia, sports are not only used for educational, recreational, and physical fitness purposes, but also as a medium for learning and training basketball so as to create outstanding students [2].

The development of sports has become a necessity for the community to maintain and improve physical fitness and physical condition in order to remain enthusiastic in carrying out daily activities and have the ability to form students who excel. Sports achievement is a sport of coaching and development of potential in a person who is carried out systematically, through competition with the aim of achieving high achievement [3].

There are many kinds of sports that are developing today, ranging from individual sports to group sports or team sports [4]. Sports in schools is an activity or effort carried out with the aim of encouraging, arousing, and fostering physical and spiritual fitness which is useful for improving human quality through an educational process [5].

One of the sports achievements that develop in a school or student environment is basketball. Through basketball, teenagers get many benefits, in addition to maintaining and improving physical fitness, it can also be a medium for learning and training basketball for high-achieving students [6]. Basketball is a team sport, played by two teams with twelve members per team, during a five-on-five match [7]. Basketball contains complex and diverse movement elements. The movements needed in playing basketball are elements of movement that support each other. Movement with the ball in the game, a student's skill to master the basic techniques of the game of basketball.

The basic techniques in basketball are passing, dribbling, and shooting [8]. Students who are able to master the basic techniques of basketball well will play well in matches and rarely experience significant difficulties. One of the basic techniques of basketball is shooting [9]. In basketball games there are types of shooting, including: (1) shooting with one hand; (b) shooting by jumping (jump shoot); (c) floating shot (lay-up shoot); (d) shooting by jumping under the ring (shoot underring) (8).

Shoot underring skills are found in the shooting section, shoot underring skills are very easy to do. At the time of the shoot underring match, the chance of the ball entering the basket (ring) is very large. Therefore students must be supported by physical condition abilities. Elements of physical condition that affect such as explosive power [10,11], speed [12] and coordination [12,13]. Indirectly, the physical condition of students has a big influence on the skill of shooting underring basketball.

Padang Laboratory Development High School is a place that is active in basketball coaching. The school's basketball team has been active since two decades ago with several students practicing three times a week. They regularly participate in various championships at the Regency/City and West Sumatra Province levels every year. Since 2012, they have participated in various championships such as DBL (Don Bosco League) throughout West Sumatra Province, as well as the Basketball championship between high schools in Padang City.

Despite being active in various championships, the team's achievements have not reached the first position. The author is interested in conducting research to find the factors that cause the low achievement of the Padang Laboratory Development High School basketball team. The author made observations of the ability of shoot underring skills during matches between students practicing at Padang Laboratory Development High School. After that, the author conducted a shoot underring skill test.

In the test, in three randomly selected students, there was a lack of success in performing underring shoot skills. Within 30 seconds, only 8 times, 10 times, and 11 times the ball successfully entered the ring. As a result of this observation, the author is interested in conducting further research on the shoot underring skills of Padang Laboratory Development High School basketball students. This research will focus on factors such as leg muscle explosiveness, eye-hand coordination, and the level of confidence that students have.

There are several factors that cause the low results of the shoot underring skills of Padang Laboratory Development High School basketball students. First, suboptimal jumping, poor vision, and inflexible wrists reduce the results of shoot underring skills. Furthermore, students' lack of trust, concentration, flexibility, and speed when performing shoot underring skills. Other factors are the contribution of leg muscle explosive power to student confidence, and eye-hand coordination to student confidence.

The problem limitation in this study is only on the contribution of leg muscle explosive power, eye-hand coordination and self-confidence to shoot underring skills in Padang Laboratory High School students. So in this study more emphasis on three independent variables and one dependent variable. The independent variables consist of leg muscle explosiveness, eye-hand coordination, and self-confidence. The dependent variable is the shoot underring skill.

The purpose of this research is to find out: (1) the contribution of leg muscle explosive power (X1) to shoot underring skills (Y); (2) the contribution of eye-hand coordination (X2) to shoot underring skills (Y); (3) the contribution of confidence (X3) to shoot underring skills (Y); (4) the contribution of leg muscle explosiveness (X1) through confidence (X3) to shoot underring; (5) the contribution of eye-hand coordination (X2) through confidence (X3) to shoot underring; (6) the contribution of leg muscle explosiveness and eye-hand coordination through confidence to shoot underring

## 2 Method

This research uses associative quantitative methods with quantitative approaches, survey methods, and path analysis models [14]. Path analysis is a technique for analyzing the cause-and-effect relationship that occurs in multiple regression when the independent variable affects the dependent variable not only directly but also indirectly. This study examines the relationship between variables by measuring the influence between variables directly. There are four variables in this study, two independent variables (independent variables) namely leg muscle explosive power (X1), eye-hand coordination (X2), one moderator variable (intervening variable) namely self-confidence (X3), and one dependent variable (dependent variable) namely basketball underring shoot results (Y).

Data collection regarding leg muscle explosiveness, hand-eye coordination, self-confidence, and shoot underring was carried out at the Padang Laboratory Development High School basketball court. The first trial of confidence, leg muscle explosiveness, and eye-hand coordination was conducted in April 2024, while the second trial was conducted in May 2024.

The population in this study were all basketball self-development activities of Padang Laboratory Development High School students, totaling 30 students. The sample of this study was taken using saturated sampling technique, where all members of the population were used as samples, so that the total sample was 30 people.

Data collection is an important step in research. The data to be collected are in the form of numbers and written information related to the focus of the research. In this study, data collection techniques were used with tests and measurements. Tests are carried out as a measuring tool to obtain data or information, and to collect research data, research instruments are used. The research instrument was prepared through several steps, namely (a) compiling indicators of research variables, (b) compiling instrument grids, (c) conducting instrument trials, and (d) testing the validity and reliability of the instrument.

The instrument used in this study consists of four main parts. First, the basketball shoot underring instrument (Y): This test aims to measure basketball shoot underring. The scoring criteria is that if the ball enters the ring, it is given a value of 1. The test is carried out for 1 minute, where each participant makes two attempts within that time. Balls that enter the ring count as 1 point. After compiling the instrument grids, validation was carried out by experts in the field of basketball to assess the suitability of the concept to be measured. Furthermore, to ensure that the test instrument that has been validated by experts is in accordance with what is being measured, a reliability process is carried out on this instrument.

Second, the leg muscle explosive power instrument. To measure leg muscle explosive power, a vertical jump test or straight jump test is used. After compiling the instrument grids, validation was carried out by experts in the field of basketball to assess the suitability of the concept to be measured. Furthermore, the reliability process is carried out on the leg muscle explosive power instrument.

Third, the eye-hand coordination instrument. This test uses a tennis ball throwing handeye coordination test. After compiling the instrument grids, validation was carried out by experts in the field of basketball to assess the suitability of the concept to be measured. Furthermore, the reliability process is carried out on the hand-eye coordination instrument.

Fourth, the self-confidence instrument. In the form of a questionnaire distributed to a group equivalent to the research sample, which contains questions to determine the level of self-confidence of each sample. After compiling the instrument grids, validation was carried out by experts in the field of basketball to assess the suitability of the concept to be measured. Furthermore, the reliability process is carried out on the self-confidence instrument.

The form of data in this study is in the form of numbers and includes data on leg muscle explosiveness, eye-hand coordination, self-confidence, and shooting underring basketball. The analysis technique used is path analysis, which includes data description, analysis requirements tests such as normality test, homogeneity test, and linearity test, as well as path analysis which involves model testing and hypothesis testing. The following are the main steps taken in the research. First, the use of research instruments, consisting of: (a) basketball underring shoot instrument (Y), the test is carried out for 1 minute, with an assessment if the ball enters the ring given a value of 1. The validation and reliability of the instrument is carried out; (b) leg muscle explosive power instrument, using the vertical jump test or straight jump test. After the preparation of the instrument grids, instrument validation and reliability were carried out; (c) hand-eye coordination instruments, using the tennis ball throwing hand-eye coordination test. Validation and reliability of the instrument were carried out after the preparation of the instrument grid; and (d) self-confidence instrument, in the form of a questionnaire that assesses the level of self-confidence of each sample. Instrument validation and reliability were carried out after the preparation of the instrument grids. Second, the data collected is in the form of numbers, including variables of leg muscle explosiveness, eve-hand coordination, self-confidence, and shoot underring basketball. Third, analysis techniques. The analysis technique used is path analysis, which includes data description. Test analysis requirements, such as normality test, homogeneity test, and linearity test. Path analysis, including model testing and hypothesis testing.

### 3 Result

#### Shoot Underring

Based on the research data with a sample of 30 people regarding shoot underring skills, the lowest data obtained is 6 highest data 13. the variance of the score obtained is 2.741. Further research data from statistical calculations obtained an average value of 9.50, mode 10 and median 10 while the standard deviation (s) amounted to 1.656 and a range of 7. By using the Strurgess rule, the number of interval classes is obtained 6 and the interval length is 1.19 so that the frequency distribution of shoot underring skill scores can be made as in TABLE 1.

|        | No | Interval Class – | Frequency |          |            |
|--------|----|------------------|-----------|----------|------------|
|        |    |                  | Absolute  | Relative | Comulative |
|        | 1  | 6.00-7.18        | 3         | 10,0%    | 10,0%      |
|        | 2  | 7.19-8.37        | 5         | 16,7%    | 26,7%      |
|        | 3  | 8.38-9.56        | 7         | 23,3%    | 50,0%      |
|        | 4  | 9.57-10.76       | 8         | 26,7%    | 76,7%      |
|        | 5  | 10.77-11.95      | 4         | 13,3%    | 90,0%      |
|        | 6  | 11.96-13.14      | 3         | 10,0%    | 100,0%     |
| Amount |    | Amount           | 30        | 100%     |            |
|        |    |                  |           |          |            |

TABLE 1. Frequency Distribution List of Shoot Underring Skills

Table 1 shows that the score of shoot underring skills with the highest frequency or number of respondents is between 9.57-10.76, namely the fourth interval class as many as 8 samples or 26.67% for each interval class in the average group. While the second

most is in the range of 8.38-9.56, namely the third interval class as many as 7 samples or 23.3% who are above the average group.

#### Limb Muscle Explosiveness

Based on the research data on the contribution of leg muscle explosive power, the lowest data obtained is 38, the highest data is 47. The range of scores obtained is 9. Further research data from statistical calculations obtained an average value of 42.80, mode 42 and median 42 while the standard deviation (s) is 2.870 and variance of 8.234. By using the Strurgess rule, the number of interval classes is 6 and the interval length is 1.53, so that the frequency distribution of leg muscle explosive power contribution scores can be made as in Table 2.

|    |                |       | Frequen | су         |
|----|----------------|-------|---------|------------|
| No | Interval Class | Abso- | Rela-   |            |
|    |                | lute  | tive    | Comulative |
| 1  | 38.00-39.52    | 5     | 16,7%   | 16,7%      |
| 2  | 39.53-41.05    | 5     | 16,7%   | 33,3%      |
| 3  | 41.06-42.59    | 6     | 20,0%   | 53,3%      |
| 4  | 42.60-44.12    | 2     | 6,7%    | 60,0%      |
| 5  | 44.13-45.65    | 6     | 20,0%   | 80,0%      |
| 6  | 45.66-47.19    | 6     | 20,0%   | 100,0%     |
|    | Amount         | 30    | 100%    |            |

TABLE 2. Limb Muscle Explosiveness Frequency Distribution List

TABLE 2 shows that the contribution score of leg muscle explosiveness with the highest frequency or number of respondents is in the range of 41.06-42.59, 44.13-45.65, and 45.66-47.19, namely the third, fifth and sixth interval classes as many as 6 samples or 20%. While the second most is in the range of 38.00-39.52, 39.53-41.05, namely the first and second interval classes as many as 5 samples or 16.7%. The third most positions are in the range 42.60-44.12 the fourth as many as 2 samples or 6.7% for each interval class are in the average group.

#### Eye-Hand Coordination

Based on the research data on eye-hand coordination, the lowest data obtained is 7, the highest data is 15. The range of scores obtained is 8. Further research data from statistical calculations obtained an average value of 11.37, mode 14 and median 14 while the standard deviation (s) is 2.269 and variance of 5.151. By using the Strurgess rule, the number of interval classes is 6 and the interval length is 1.36, so that the frequency distribution of hand-eye coordination scores can be made as in TABLE 3.

|    | -              |       | Frequence | cy         |
|----|----------------|-------|-----------|------------|
| No | Interval Class | Abso- | Rela-     |            |
|    |                | lute  | tive      | Comulative |
| 1  | 7.00-8.35      | 4     | 13,3%     | 13,3%      |
| 2  | 8.36-9.71      | 4     | 13,3%     | 26,7%      |
| 3  | 9.72-11.08     | 7     | 23,3%     | 50,0%      |
| 4  | 11.09-12.44    | 4     | 13,3%     | 63,3%      |
| 5  | 12.45-13.80    | 4     | 13,3%     | 76,7%      |
| 6  | 13.81-15.16    | 7     | 23,3%     | 100,0%     |
|    | Amount         | 30    | 100%      |            |

TABLE 3. Eye-Hand Coordination Frequency Distribution List

TABLE 3 shows that the eye-hand coordination score with the highest frequency or number of respondents is between 9.72-11.08, 13.81-15.16, namely the third and sixth interval classes as many as 7 samples or 23.3%. While the second most is in the range of 7.00-8.35, 8.36-9.71, 11.09-12.44, and 12.45-13.80, namely the fourth interval class as many as 4 samples or 13.3%.

#### Confidence

Based on the research data on self-confidence, the lowest data is obtained 32 the highest data is 160. The range of scores obtained is 28. Further research data from statistical calculations obtained an average value of 144.83 mode 144 and median 144 while the standard deviation (s) is 7.693 and a variance of 59.183. By using the Strurgess rule, the number of interval classes is 6 and the interval length is 4.77, so that the frequency distribution of self-confidence scores can be made as in TABLE 4.

| TABLE 4. Self-confidence Frequency Distribution List |                |               |          |            |  |
|--|----------------|---------------|----------|------------|--|
|  |                | Frequency     |          |            |  |
| No   | Interval Class | Abso-<br>lute | Relative | Comulative |  |
| 1  | 132.00-136.76  | 5             | 16,7%    | 16,7%      |  |
| 2  | 136.77-141.52  | 6             | 20,0%    | 36,7%      |  |
| 3  | 141.53-146.29  | 7             | 23,3%    | 60,0%      |  |
| 4  | 146.30-151.06  | 7             | 23,3%    | 83,3%      |  |
| 5  | 151.07-155.82  | 1             | 3,3%     | 86,7%      |  |
| 6  | 155.83-160.59  | 4             | 13,3%    | 100,0%     |  |
|  | Jumlah         | 30            | 100%     |            |  |

TABLE 4 shows that the confidence score with the highest frequency or number of respondents is between 141.53-146.29, and 146.30-151.06, namely the third and fourth interval classes as many as 7 samples or 23.3%. While the second most was in the range 136.77-141.52, namely the second interval class as many as 6 samples or 20.0%. The

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third most positions are in the range 132.00-136.76, namely the first interval class as many as 4 samples or 16.7%.

#### Hypothesis Testing

Testing the causality model using the path analysis method, it requires research data that has been tested and meets all the requirements. The structural model in this study is re-presented as shown in FIGURE 1. From the path diagram in **FIGURE 1**, six path coefficients are obtained, namely,  $p_{yx1} + p_{yx2} + p_{yx3} + p_{x3x1} + p_{x3x2} + p_{x2x1}$  and six correlation coefficients, namely  $r_{12}$ ,  $r_{13}$ ,  $r_{23}$ ,  $r_{1y}$ ,  $r_{2y}$ ,  $r_{3y}$ .



FIGURE 1. Causal Relationship of X1, X2 and X3 to Y

Furthermore, the path coefficient value is calculated and tested for significance using the t statistic and if the tested path shows an insignificant or insignificant coefficient value, the path will be eliminated and then the path coefficient is calculated again without including the eliminated one.

First, the calculation of the path coefficient in sub-structure 1 between the contribution of leg muscle explosive power, eye-hand coordination and self-confidence to shoot underring skills. The causal relationship between variables in Sub-Structure 3 shown in FIGURE 2 below, consists of one endogenous variable Y and three exogenous variables  $X_1$ ,  $X_2$ , and  $X_3$ . The structural equation for Sub-Structure 1 is as follows:  $Y =_{pyx1}X_1 + p_{yx2}X_2 + p_{yx3}X_3 + \epsilon 2$ . The results of data processing using SPSS version 17 computer software, the overall test or  $F_{test}$  on Sub-Structure 1 with the value of  $F_{count} = 286.010$ as in the table is greater than the  $F_{table}$  for  $\alpha = 0.05$  of 4.17, so it can be continued with an individual test or t test.

Based on this test, all path coefficients are significant, namely the path coefficient between the contribution of leg muscle explosive power and shoot underring skills ( $p_{yx1}$ ), the path coefficient between eye-hand coordination and shoot underring skills ( $p_{yx2}$ ) and the path coefficient of confidence with shoot underring skills ( $p_{yx3}$ ). Based on the results of the path analysis of Sub-Structure 1 ( $X_1$ ;  $X_2$ ;  $X_3$  and Y) seen in the Coefficiens-Sub-Structure 1 table, each value is obtained: (a)  $\rho_{yx1} = \text{Beta} = 0.504$  (t = 2.091 and probability (sig) = 0.046); (b)  $\rho_{yx2} = \text{Beta} = 0.604$  (t = 2.894 and probability (sig) = 0.008); and (c)  $\rho_{yx3} = \text{Beta} = 0.871$  (t = 3.797 and probability (sig) = 0.001).

The results of the analysis prove that all path coefficients are significant, namely between the models in the Sub-Structure 1 relationship picture of variables  $X_1$ ,  $X_2$  and  $X_3$  to Y. Based on the results of the analysis in the table, the coefficient value of  $X_1$  on

Y is  $p_{yx1} = 0.504$ ,  $X_2$  on Y is  $p_{yx2} = 0.604$  and  $X_3$  on Y is  $p_{yx1} = 0.871$ . While the coefficient of determination or contribution of  $X_1$ ,  $X_2$  and  $X_3$  to Y is ( $R_{square} = R_{2yx3x2x1}$ ) = 0.949 as in the table, which means that 94% of variations in shoot underring skills can be explained by variations in the contribution of leg muscle explosiveness eye-hand coordination and self-confidence. The residual coefficient  $\rho_{yc2} = \sqrt{(1-0.949)} = 0.2258$  is the influence of other variables outside the contribution of leg muscle explosiveness, eye-hand coordination and self-confidence. Thus the structural equation for Sub-Structure 1 is  $Y = 0.504X_1 + 0.604X_2 + 0.871X_3 + 0.2258$ , and the path diagram is as shown in the figure. Thus the path diagram of Sub-Structure 1 is as shown below.



FIGURE 2. Causal Relationship of Sub-Structure 1 X1, X2 and X3 to Y

Second, the calculation of the path coefficient in sub-structure 2 between the contribution of leg muscle explosive power and eye-hand coordination through self-confidence. The structural model shown in figure 1 above consists of three substructures, namely Sub-Structure-1, Sub-Structure-2 and Sub-Structure-3. The causal relationship between variables in Sub-Structure-2 is shown in figure 3. The structural equation for sub-structure 2 is as follows:  $X_3 = r_{x3x1}X_1 + r_{x3x2}X_2 + \varepsilon_1$ .



FIGURE 3. Causal Relationship in Sub-Structure 2

The overall test or F test on Sub-Structure-2, with the value of  $F_{count} = 395.565$  is greater than the  $F_{table}$  for  $\alpha = 0.05$  of 4.17, so it can be continued with an individual test or t test. Furthermore, all path coefficients are significant at  $\alpha = 0.05$ , because all tcounts are greater than the t table. Based on the results of the path analysis of sub-structure 2 (X<sub>1</sub>; X<sub>2</sub> to X<sub>3</sub>) seen in Coefficiens-Sub-Structure 2, each value is obtained: (a)  $\rho_{x3x1} =$  Beta = 0.633 (t = 3.925 and probability (sig) = 0.001); and (b)  $\rho_{x3x2} =$  Beta = 0.355 (t = 2.199 and probability (sig) = 0.037).

The analysis results prove that all path coefficients are significant. Based on the analysis results, the coefficient value of  $X_1$  on  $X_3$  is  $p_{x3x1} = 0.633$  and  $X_2$  on  $X_3$  is  $p_{x3x2} = 0.355$ . While the coefficient of determination or contribution of  $X_1$  and  $X_2$  to  $X_3$  is (Rsquare =  $R_{2x3x2x1}$ ) = 0.963, which means that 96% of variations in self-confidence (X<sub>3</sub>) can be explained by variations in the contribution of leg muscle explosiveness (X<sub>1</sub>) and eye-hand coordination (X<sub>2</sub>). The residual coefficient  $\rho_{x3e1} = \sqrt{(1-0.963)} = 0.1924$  is the influence of other variables outside the contribution of leg muscle explosiveness (X<sub>1</sub>) and eye-hand coordination (X<sub>2</sub>). Thus, the structural equation for Sub-Structure 2 is  $X_3 = 0.633X1 + 0.355X2 + 0.1924$ , and the path diagram is as in FIGURE 4.



FIGURE 4. Causal Relationship in Sub-Structure 2

Third, the calculation of the path coefficient in sub-structure 3 between the contribution of leg muscle explosive power and eye-hand coordination. The structural model above consists of three substructures, namely Sub-Structure-1, Sub-Structure-2 and Sub-Structure-3. The causal relationship between variables in Sub-Structure-1 in the form of a structural equation for sub-structure 3 is as follows:  $X_2 = r_{x2x1X1} + \epsilon_1$ .



FIGURE 5. Causal Relationships in Sub-Structure 3

Hasil The overall test or F test on Sub-Structure-3, with the value of  $F_{count} = 500.065$  is greater than  $F_{table}$  for  $\alpha = 0.05$  of 4.17, so it can be continued with an individual test or t test. Furthermore, the path coefficient is significant at  $\alpha = 0.05$ , because  $t_{count}$  is greater than ttable. Based on the results of the path analysis of sub-structure 3 (X<sub>1</sub> and X<sub>2</sub>) seen in Coefficiens-Sub-Structure 3, each value is obtained:  $\rho_{x2x1} = Beta = 0.973$  (t = 22.362 and probability (sig) = 0.001).

The analysis results prove that the path coefficient is significant, so the model in the analysis results obtained the coefficient value of  $X_1$  on  $X_2$  of  $p_{x2x1} = 0.973$ . While the coefficient of determination or contribution of  $X_1$  to  $X_2$  is ( $R_{square} = R^2_{x2x1}$ ) = 0.947, which means that 94% of variation ( $X_2$ ) can be explained by variations in the contribution of leg muscle explosiveness. The residual coefficient  $\rho_{x2e1} = \sqrt{(1-0.947)} = 0.2302$  is the influence of other variables outside the contribution of leg muscle explosive power ( $X_1$ ). Thus, the structural equation for Sub-Structure 3 is  $X_2 = 0.973X_1 + 0.2302$ . Based on the results of the path coefficients in Sub-Structure 1, Sub-Structure 2 and Sub-Structure 3, it can be described as a whole that describes the causal relationship between variables  $X_1$ ,  $X_2$  and  $X_3$  to Y as follows.



FIGURE 6. Causal Relationship between Variables X1, X2, X3 and Y

The results of the path coefficients on Sub-Structure 1, Sub-Structure 2 and Sub-Structure 3 turn into the following structural equation.

$$\begin{split} &X_2 = \rho_{x2x1}X_1 + \rho_{x2}\epsilon_1 \text{ and } R^2_{x2x1} \\ &X_2 = 0.973X_1 + 0.2302 \text{ and } R^2_{x2x1} = 0.945 \\ &X_3 = \rho_{x3x1}X_1 + \rho_{x3x2}X_2 + \rho_{x3}\epsilon_1 \text{ and } R^2_{x3x2x1} \\ &X_3 = 0.633X_1 + 0.355X_2 + 0.1924 \ \epsilon_1 \text{ and } R^2_{x3x2x1} = 0.963 \\ &Y = \rho_{yx1}X_1 + \rho_{yx2}X_2 + \rho_{yx3}X_3 + \rho_{y}\epsilon_2 \text{ and } R^2_{yx2x1} \\ &Y = 0.504X_1 + 0.604X_2 + 0.871X_3 + 0.2258\epsilon_2 \text{ dan } R^2_{yx3x2x1} = 0.949 \end{split}$$

#### 4 Discussion

After model testing, hypothesis testing is then carried out to determine the direct effect between variables. The hypothesis proposed will be concluded through the calculation of the path coefficient value and significance for each path studied. The results of the decision on all hypotheses proposed are explained as follows.

## 5 Conclusion

Conclusions were drawn based on the results of research findings with exogenous variables consisting of the contribution of leg muscle explosive power (X1), eye-hand coordination (X2) and self-confidence (X3). Endogenous variables consist of shoot underring skills (Y).

First, there is a significant contribution between leg muscle explosiveness to shoot underring skills of 0.2540. Leg muscle explosiveness contributes directly to shoot underring skills by 25.40%.

Second, there is a significant contribution between eye-hand coordination to shoot underring skills of 0.3648. Eye-hand coordination contributes directly to shoot underring skills by 36.48%.

Third, there is a significant contribution between self-confidence and shoot underring skills of 0.7586. Self-confidence contributes directly to shoot underring skills by 75.86%.

Fourth, there is a significant contribution between the contribution of leg muscle explosiveness through self-confidence to shoot underring of 0.4006. The contribution of leg muscle explosiveness through confidence does not contribute directly to shoot underring by 40.60%.

Fifth, there is a significant contribution between eye-hand coordination through confidence to shoot underring of 0.1260. Eye-hand coordination through confidence does not contribute directly to shoot underring through confidence by 12.60%.

Sixth, there is a significant contribution between leg muscle explosiveness and eyehand coordination through self-confidence to shoot underring of 0.9467. leg muscle explosiveness and eye-hand coordination through self-confidence contribute directly to shoot underring by 94.67%.

Based on the above conclusions, it can be explained that the variation in shoot underring skills of UNP Laboratory High School students is dominantly influenced directly by leg muscle explosiveness, hand-eye coordination and self-confidence. Thus shoot underring skills can be improved through increasing leg muscle explosiveness, eye-hand coordination and confidence in shoot underring.

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