Relationship between Arm Muscle Strength, Lemb Muscle Strength, and Eyes-Feet Coordination with Basic Movement Ability of Elementary School Students

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ABSTRACT

Purpose: The purpose of this study was to examine relationship between arm muscle strength, lemb muscle strength, and eyes-feet coordination with basic movement ability of elementary school students.

Materials and Methods: The use of quantitative methods to examine certain populations or samples, generally sampling techniques are random or random, requires research instruments for data collection. The study was conducted in that place because researchers wanted to test the basic movement skills of upper class students of Madrasah Ibtidaiyah Negeri Kota Cirebon. The total of the 6 classes is 62 male students. Test the hypothesis of the relationship level of arm muscle strength, leg muscle strength, and eye-foot coordination together with basic motion ability using multiple correlation coefficients.

Results: Based on the analysis, a value coefficient of 20.583 > (2.79) was obtained at a significance level of 5% and = 0.929 > = 0.279, thus it is interpreted that there is a significant relationship between arm muscle strength, leg muscle strength and eye-foot coordination with the basic movement ability of MIN Cirebon City male students. This relationship means that there is a relationship between these variables with basic motion ability. When performing each daily activity the strength of arm muscles, leg muscles, and eye-foot coordination contributes to the results of movement.

Conclusions: Based on the research results, it can be concluded that there is the contribution was arm muscle strength of 13.39%, leg muscle strength of 15.51%, and eye-foot coordination of 26.38%, and the remaining 44.7% was influenced by other factors that were not studied in this study.

KEYWORDS: Arm Muscle Strength, Lemb Muscle Strength, Eyes-Feet Coordination, Basic Movement Ability

INTRODUCTION

Law number 20 of 2003 Article 1 concerning the National Education System states that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves society, nation and state (Amaliyah & Rahmat, 2021). National education functions to develop the ability and shape the character and civilization of a dignified nation in order to educate the nation's life, aims to develop the potential of students to become human beings who believe and fear God Almighty, have noble character, healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens (Kurniawan, 2015).

If teaching methods can direct, nurture, and motivate children in elementary school, then students will develop their skills and talents. Fine and gross motor skills, creativity, spirituality, and emotional intelligence are all emphasized in the educational structure (Apriloka, 2020). One of the educational goals for elementary school-age children is for children to be able to grasp sensory stimuli as well as be able to manage their motor skills (Masni, 2018).

The process of physical and motor development in elementary school students plays an important role in shaping quality individuals in the future. Children's physique and motor develop very rapidly (Mahfud & Fahrizqi, 2020).. Motor development and physical development go hand in hand. Movement or motor development is also impaired if there is a disturbance in physical

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development. The development of motion is beneficial for the growth of physiological, cognitive, social, and emotional elements (Mustafa &; Sugiharto, 2020)

Basically, humans move and move to survive. Without realizing it, humans have been moving from an early age. Means motion is an important necessity in survival. Good basic motion affects good motion for humans as well, because basic motion is the main element of all human motion (Muslihin, 2020). Examples of basic movements that children do when playing are walking, running, jumping, sometimes throwing and catching in certain games. Without realizing it, many games contain basic human movements. That means physical activity has a large contribution to the basic movement ability of a child(Leonardo &; Komaini, 2021).

In schools, physical activities that require basic movement have been arranged in a structured and planned manner into a subject, namely Physical Education, Sports, and Health (PJOK)(Raibowo & Nopiyanto, 2020). PJOK subjects function to develop children's basic movement skills because learning is carried out through physical activities that involve basic movements. Physical activity is a form of stimulation in order to bring out the potentials of students in learning (Irianto, 2018).

Because physical education is essentially an inherent component of the entire education system, physical education occurs when students experience a reciprocal process with the school environment through effective and efficient physical coaching in order to produce a whole person (Atabik, 2018). The process of implementing physical education learning should focus on efforts to improve basic movements so that students avoid difficulties in following lessons, especially students who have basic movements that have not been fully formed. Even when playing, students need good basic movement skills to produce maximum motion, so that students easily recognize other more complicated movements (Mustafa, 2020).

Teachers in elementary schools, especially those who teach PJOK, need to know the stages of student development, especially in terms of physical and motor abilities. The ability of a PJOK teacher to design various physical learning activities that can encourage the growth and development of children's basic movements is very important. In other words, the physical activity of PJOK teachers must motivate students to move actively to meet the learning objectives of basic movement skills (Mashud, 2019). In the implementation of physical education, students receive psychological guidance which includes mental, motivation, and physical or physical coaching (physical exercise) whose training can be a provision of abilities and skills can be used to get through the next period of development (Safitri, 2021).

Play becomes an activity that elementary school children like and becomes a character of their age. Student growth and development will have a positive effect from basic motion play activities. Games with elements of basic motion such as running to pick up the ball then returning to the starting point again, jumping through obstacles in the form of The installed cone, ran to one point and turned quickly towards the other (Sumantri &; Neldi, 2019).

As the game progresses, researchers make observations on learning basic motion wrapped games that are in progress. Researchers found that some upper-grade students lost their balance when turning quickly, fell when bent over to pick up the ball, were unable to catch the ball (about the size of a tennis ball), and were only able to do a few times push ups in a series of games. To support the basic movements of students, the attention of PJOK teachers must be focused on the characteristics of students starting from their physical, social, and intelligence conditions (Sudirjo et al., 2019).

Strength, coordination, speed, balance, agility, flexibility, and endurance are components of basic movement skills. Since strength is the engine that drives all physical activity, it is an important aspect of total physical fitness. The components of the physical state on which movement, strength and coordination are based are constants (Vanagosi, 2016).

Strength, like the strength of the arm and leg muscles, is one of the many important elements that determine how well a person performs in physical activity. The capacity of a set of muscles to tolerate resistance or load while performing their function is known as strength(B Bafirman, 2019). Arm muscle strength is a movement that is performed explosively, meaning someone who is able to use arm muscle strength that is maximally deployed in the shortest time to produce movement. A positive impact will be given by good muscle strength, related to the use of power to perform movements. If the power is large, then the activity will be easier. The better the strength of the arm muscles, the better the ability of students to carry out their activities (Chan, 2012).

Leg muscle strength is one aspect that affects a person's appearance along with arm muscle strength, especially in movement skills training. Basically, you have to constantly work your muscles, especially your legs, while performing tasks. When actively playing, for example when children are cycling, running, or jumping. This action relies on the strength of the leg muscles unconsciously. There is no doubt that the carrying capacity and contribution of arm and leg muscle strength to the demands of an activity or sport have a significant impact (Marwan et al., 2013). But the PJOK learning process is not taught in a focused manner, so the impact on the strength of the students' arm and leg muscles is still weak.

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In addition to the role of strength, the physical condition supporting the basic movement of students is coordination. Coordination is the interaction of the central nervous system with all the body's locomotion apparatus in regulating and controlling muscle work to carry out a series of motions. Basic movements require the ability to perform good eye-foot coordination in some basic movements, for example when kicking, dribbling, throwing, a series of ideal, easy, slick and smooth movements will be created from the sequence of motion must be done precisely. Eye-foot coordination is needed in the basic movement ability of individuals, eye-foot coordination is able to combine effectively a variety of different motions into a complete motion pattern. Without having capable eye-foot coordination, an individual will find it difficult to move properly.

Based on observations, the basic movement ability of elementary schools, especially in the upper grades, is still relatively poor. The coordination of children's gestures in preschool should have developed close to perfect and will be perfect when the child enters elementary school age. The problems that become the background above concern the problem of arm muscle strength, leg muscle strength, eye-foot coordination with basic movement ability.

METHOD

The research will be conducted at Madrasah Ibtidaiyah Negeri Kota Cirebon which is addressed at Jl.Captain Samadikun Gg. Bawal No. 142A, Kec. Lemahwungkuk, Cirebon City, West Java. The study was conducted in that place because researchers wanted to test the basic movement skills of upper class students of Madrasah Ibtidaiyah Negeri Kota Cirebon.

In this study took the population of male students grade IV, V, VI in Madrasah Ibtidaiyah Negeri Kota Cirebon with a total of 6 classes consisting of class IV-A 12 students, class IV-B 19 students, V-A 8 students, V-B 10 students, VI-A 5 students, VI-B 8 students. The total of the 6 classes is 62 male students

The author uses correlational quantitative methods in conducting this research The use of quantitative methods to examine certain populations or samples, generally sampling techniques are random or random, requires research instruments for data collection, analyzing data with statistics whose purpose is to test hypotheses:

1. Descriptive Analysis

Descriptive analysis is part of the way to process and perform quantitative data analysis in order to describe an activity in an orderly manner. Descriptive statistics aim to tell the picture of respondents and the distribution of research data. Generally descriptive statistics describe data from mean, standard deviation, minimum and maximum.

2. Normality Test

Test Normality is a requirement that must be met so that regression can be used to predict whether residual data in a study has been distributed normally or not (Ghozali, 2018: 154).

3. Linearity Test

To find out whether the use of model specifications is correct or not, it is necessary to conduct a linearity test. The linearity test will provide information on whether the implicical model should be linear, quadratic or cubic. Correlation or regression analysis uses a linearity test as a prerequisite. This study uses a method to test, namely test for linearity or a comparison of ETA and R squared. Linearity can be seen from the table Measure of Association. If the eta value > eta Square then the proper model is linear or from anova table Linear Model if Sig Linearity <0.05

4. Correlation Coefficient Test

   a. Simple Correlation Coefficient

To find a relationship and prove the hypothesis between arm muscle strength and basic motion ability, namely with the formula:

$$r_{x_1 y} = \frac{\sum x_1 y}{\sqrt{\Sigma (x_1)^2 \, y^2}}$$

Information:

$r_{x_1 y}$= correlation between variable (arm muscle strength) and variable Y (basic movement ability)X_1

X_1 = arm muscle strength

y = basic motion ability

To find a relationship and prove the hypothesis between leg muscle strength and basic motion ability, namely with the formula:

$$r_{x_2 y} = \frac{\sum x_2 y}{\sqrt{\Sigma (x_2)^2 \, y^2}}$$

Information:

$r_{x_2 y}$= correlation between variable (leg muscle strength) and variable Y (basic movement ability)X_2

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X_2 = leg muscle strength

y = basic motion ability

To find a relationship and prove the hypothesis between eye-foot coordination and basic motion skills, namely with the formula:

$$r_{x_3y} = \frac{\sum x_3y}{\sqrt{\Sigma(x_3)^2\,y^2}}$$

Information:

r_{x_3y}= correlation between variable (eye-foot coordination) and variable Y (basic movement ability)X_3

X_3 = eye-foot coordination

y = basic motion ability

b. Multiple Correlation Coefficient

Next, to test the hypothesis of the relationship level of arm muscle strength, leg muscle strength, and eye-foot coordination together with basic motion ability using multiple correlation coefficients. The characteristic of multiple correlation coefficients is to have more than one independent variable, the formula is:

$$R_{x_1x_2x_3=}\sqrt{\frac{b_1\sum x_1y + b_2\sum x_2y + b_3\sum x_3y}{\sum y^2}}$$

Information:

$R_{x_1x_2x_3}$ = Correlation coefficients , , and $YX_1X_2X_1$

$\sum y^2$ = Number of squares of criterium Y

b_1 = Coefficient of predictor X_1

b_2 = Coefficient of predictor X_2

b_3 = Coefficient of predictor X_3

The correlation coefficient (r) indicates the degree of influence of the independent variable (X) with the dependent variable (Y). The value of the coefficient must be within the limits of -1 to +1 (-1 < r < +1), resulting in several possibilities, namely:

a. If r = 0 or close to 0, then it shows a weak correlation or no correlation at all between the variables studied.

b. If r = +1 or close to +1, then the correlation between variables is said to be positive.

c. If r = -1 or close to -1, then the correlation between the two variables is said to be negative.

RESULTS

This study used 4 variables, consisting of 3 independent variables (arm muscle strength, leg muscle strength, and eye-foot coordination) and 1 dependent variable, namely basic movement ability. In order for research to be easier to do, then the three variables are denoted in X_1 for arm muscle strength, for leg muscle strength, for eye-foot coordination and Y for basic locomotion. The following will describe the data of each variable.X_2 X_3

The following will describe the data of each variable. The data description describes the maximum, minimum, mean and standard deviation, which are then arranged in a frequency distribution along with a histogram image. The following is a description of the data obtained from the research subjects:

1. Arm Muscle Strength

The results of calculating variable data on arm muscle strength were obtained, minimum value = 10.5 , maximum value = 21.6 , average (mean) = 15.542 , standard deviation = 2.7268. The description table of arm muscle strength analysis data is as follows:

Table 1. Description of Frequency Arm Muscle Strength

Number	Interval	Frequency	%
1.	10,5 – 12,35	9	16,67
2.	12,36 – 14,21	9	16,67
3.	14,22 – 16,07	13	24,07
4.	16,08 – 17,93	14	25,93
5.	17,94 – 19,79	5	9,26
6.	19,80 – 21,6	4	7,40
Sum		54	100

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These results when displayed in the form of a diagram will be seen as below.

2. Leg Muscle Strength

The results of calculating variable data on arm muscle strength were obtained, minimum value = 14, maximum value = 64, average (mean) = 3.39, standard deviation = 10.108. The description table of arm muscle strength analysis data is as follows:

Table 2. Description of Arm Muscle Strength Frequency

Number	Interval	Frequency	%
1.	14 – 23	15	27,78
2.	24 – 33	19	35,19
3.	34 – 43	15	27,78
4.	44 – 53	4	7,41
5.	54 – 64	1	1,85
Sum		54	100

The results when displayed in the form of a diagram will be seen as below:

3. Eye-Foot Coordination

The results of calculating the data of the eye-foot coordination variable were obtained, minimum value = 3, maximum value = 14, mean = 7.91, standard deviation = 2.452. The description table of arm muscle strength analysis data is as follows:

Table 3. Description of Frequency of Eye-Foot Coordination

No.	Interval	Frequency	%
1.	3 – 5	11	20,37
2.	6 – 8	22	40,74
3.	9 – 11	18	33,33
4.	12 – 14	3	5,56
Sum		54	100

4. Data Analysis Results
   a. Normality Test
      Based on the results of the normality test, it is known that the significance value is 0.200 > 0.05, so it can be concluded that the residual value is normally distributed.
   b. Linearity Test
      Linear testing is carried out through the F test. The relationship between variables X and Y is declared linear if the value with db = m; N-m-1 at a significance level of 0.05 > . The results of the linearity test can be seen in the following table. Full results are presented in appendix:

Table 4. Results of the Linearity Test

	F_{Count}	Df	F_{Table}	Sig	Information
$X_1.Y$	0,712	1:53	2,31	0,801	Linear
$X_2.Y$	1,124	1:53	1,96	0,389	Linear
$X_3.Y$	0,619	1:53	1,98	0,789	Linear

From the table above, it can be seen that the value of all independent variables with bound variables is smaller than . Thus, the relationship of all independent variables to their dependent variables is expressed linearly.

2. Test the Hypothesis

Analysis of research data used to test the hypothesis consists of simple regression analysis and multiple regression. The results of a simple regression analysis are as follows:

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Table 5. Results of a Simple Regression Analysis

	X_1	X_2	X_3	Y	r tabel
X_1	1	0,558	0,234	0,521	0,266
X_2		1	0,262	0,546	0,266
X_3			1	0,585	0,266
Y				1	-

To clarify the relationship between the independent variable and the dependent variable, a simple regression analysis is performed.

The next hypothesis test is the analysis of arm muscle strength, leg muscle strength, and eye-foot coordination with basic movement ability together. The results of the hypothesis test using multiple regression analysis can be seen in the following table:

Table 6. Results of the Hypothesis Test using Multiple Regression Analysis

Variable	Regression Coefficient	F_{hitung}	F_{tabel}	R	R^2	P
Constant	99,148	20,583	2,79	0,743	0,526	0,000
Arm Muscle Strength	2,502					
Leg Muscle Strength	0,745					
Eye-Foot Coordination	4,878					

Based on the results of the regression analysis, the regression equation is obtained as follows: Y = 99.148 + 2.502 X1 + 0.745 X2 + 0.184 X3

The coefficient objection test was carried out by consulting a value of 20.583 > (2.79) at a significance level of 5% and = 0.929 > = 0.279, meaning that the coefficient is significant. Thus, the hypothesis reads "there is a significant relationship between arm muscle strength, leg muscle strength, and eye-foot coordination with the basic movement ability of MIN Cirebon City male students".

The amount of contribution of arm muscle strength, leg muscle strength, and eye-foot coordination to basic movement ability is known by means of the value of R = (x100%). The value was 0.553, so that the contribution of arm muscle strength, leg muscle strength, and eye-foot coordination to basic movement ability was 55.3%, while the remaining 44.7% was influenced by other factors that were not included in the research variables. The amount of contribution of each variable is described as follows:

Table 7. Contribution of Arm Muscle Strength, Leg Muscle Strength, and Eye-Foot Coordination to Basic Movement Ability

Variable	r	SR	ONE
Arm muscle strength	0,521	13,3897	24,21284
Leg muscle strength	0,546	15,5064	28,04051
Eye-foot coordination	0,585	26,3835	47,70976
Sum		**55,3**	**100,0**

DISCUSSION

Basic movement ability is a general skill that experiences continuous repetition until it becomes a habit, the basis of experience for locomotor, non-locomotor and manipulative movements so that the quality of life increases. To obtain good basic movement skills, every elementary school student is required to have elements of basic movement abilities, namely arm muscle strength, leg muscle strength, and eye-foot coordination.

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Basic movement ability is a phase of learning motion aimed at the development and maturity of children's movement skills which include the basic movements including the body, space, effort, and connectedness. One must master locomotor, non-locomotor, and manipulative movements in order to have good basic movement skills. To support good basic movement abilities, elements of good physical condition are also needed. In this study the aim was to determine the relationship between arm muscle strength, leg muscles, and eye-foot coordination with basic movement abilities.

CONCLUSION

Based on the analysis, a value coefficient of 20.583 > (2.79) was obtained at a significance level of 5% and = 0.929 > = 0.279, thus it is interpreted that there is a significant relationship between arm muscle strength, leg muscle strength and eye-foot coordination with the basic movement ability of MIN Cirebon City male students. This relationship means that there is a relationship between these variables with basic motion ability. When performing each daily activity the strength of arm muscles, leg muscles, and eye-foot coordination contributes to the results of movement. The magnitude of the contribution was arm muscle strength of 13.39%, leg muscle strength of 15.51%, and eye-foot coordination of 26.38%, and the remaining 44.7% was influenced by other factors that were not studied in this study.

REFERENCES

1) Amaliyah, A., & Rahmat, A. (2021). Pengembangan Potensi Diri Peserta Didik Melalui Proses Pendidikan. *Attadib: Journal of Elementary Education*, *5*(1), 28. https://doi.org/10.32507/attadib.v5i1.926

2) Apriloka, D. V. (2020). Keterampilan Motorik Kasar Anak Usia Dini Ditinjau Dari Jenis Kelamin. *(JAPRA) Jurnal Pendidikan Raudhatul Athfal (JAPRA)*, *3*(1), 61–67. https://doi.org/10.15575/japra.v3i1.8106

3) Atabik, A. (2018). Pendidikan Dan Pengembangan Potensi Anak Usia Dini. *ThufuLA: Jurnal Inovasi Pendidikan Guru Raudhatul Athfal*, *2*(1), 149. https://doi.org/10.21043/thufula.v2i1.4270

4) B Bafirman, A. W. (2019). *Pembentukan kondisi fisik*.

5) Chan, F. (2012). Strength Training (Latihan Kekuatan). *Cerdas Sifa*, *1*(1), 1–8. https://online-journal.unja.ac.id/index.php/csp/article/view/703

6) Irianto, T. (2018). Implementasi Kurikulum 2013 dalam Pembelajaran Pendidikan Jasmani Olahraga dan Kesehatan di Sekolah Dasar. *Jurnal Multilateral*, *13*(1), 58–61.

7) Kurniawan, M. I. (2015). Tri Pusat Pendidikan Sebagai Sarana Pendidikan Karakter Anak Sekolah Dasar. *Pedagogia : Jurnal Pendidikan*, *4*(1), 41–49. https://doi.org/10.21070/pedagogia.v4i1.71

8) Leonardo, A., & Komaini, A. (2021). Hubungan Aktivitas Fisik Terhadap Keterampilan Motorik. *Jurnal Stamina*, *4*(3), 135–144. http://stamina.ppj.unp.ac.id/index.php/JST/article/view/764

9) Mahfud, I., & Fahrizqi, E. B. (2020). Pengembangan Model Latihan Keterampilan Motorik Melalui Olahraga Tradisional Untuk Siswa Sekolah Dasar. *Sport Science and Education Journal*, *1*(1), 31–37. https://doi.org/10.33365/.v1i1.622

10) Marwan, I., Setiawan, D., & Wahidah, I. (2013). Pengembangan Model Alat Peningkatan Kekuatan Otot Lengan Dan Otot Tungkai Pada Siswa Sekolah Dasar. *Jurnal Siliwangi*, *1*(1), 14–21.

11) Mashud, M. (2019). Analisis Masalah Guru Pjok Dalam Mewujudkan Tujuan Kebugaran Jasmani. *Multilateral Jurnal Pendidikan Jasmani Dan Olahraga*, *17*(2), 77–85. https://doi.org/10.20527/multilateral.v17i2.5704

12) Masni, H. (2018). Urgensi Pendidikan Dalam Mengembangkan Potensi Diri Anak. *Jurnal Ilmiah Dikdaya*, *8*(2), 275. https://doi.org/10.33087/dikdaya.v8i2.110

13) Muslihin, H. Y. (2020). Bagaimana Mengajarkan Gerak Lokomotor Pada Anak Usia Dini? *Jurnal Paud Agapedia*, *2*(1), 76–88. https://doi.org/10.17509/jpa.v2i1.24390

14) Mustafa, P. S. (2020). Kontribusi Kurikulum Pendidikan Jasmani, Olahraga, dan Kesehatan di Indonesia dalam Membentuk Keterampilan Era Abad 21. *Jurnal Pendidikan: Riset Dan Konseptual*, *4*(3), 437–452. https://doi.org/10.28926/riset_konseptual.v4i3.248

15) Mustafa, P. S., & Sugiharto, S. (2020). Keterampilan Motorik Pada Pendidikan Jasmani Meningkatkan Pembelajaran Gerak Seumur Hidup. *Sporta Saintika*, *5*(2), 199–218. https://doi.org/10.24036/sporta.v5i2.133

16) Raibowo, S., & Nopiyanto, Y. E. (2020). *Proses Belajar Mengajar Pjok Di Masa Pandemi Covid-19*. *1*, 112–119.

17) Safitri, E. (2021). *Peran Guru Penjaskes Dalam Meningkatkan Minat Belajar Siswa Terhadap Pembelajaran Pjok Pada Masa Pandemi Covid–19 Di Smk Yp Gajah Mada Palembang*. *7*(1), 27–34.

18) Sudirjo, E., Susilawati, D., Setia Lengkana, A., & Nur Alif, M. (2019). Pendampingan Dan Pelatihan Keseimbangan Tubuh

Pada Guru Pjok Sekolah Dasar. *Multilateral Jurnal Pendidikan Jasmani Dan Olahraga*, *18*(2), 93–101. https://doi.org/10.20527/multilateral.v18i2.7619

19) Sumantri, A., & Neldi, H. (2019). Profil Pelaksanaan Pembelajaran PJOK di SD Gugus 1 Kecamatan Bintan Timur. *JPO Jurnal Pendidikan Dan Olahraga*, *2*(1), 160–164. jpdo@ppj.unp.ac.id

20) Vanagosi, K. D. (2016). Konsep gerak dasar untuk anak usia dini. *Pendidikan Kesehatan Rekreasi*, *1*, 72–79.