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The Relationship Of Motor Educability And Motor Ability To Self-Esteem In Physical Education Learning

Argie Manggala Octa Shakty[1*], Tatang Muhtar[2], Adang Sudrazat[3]

[1,2,3] Faculty of Physical Education and Health, Universitas Pendidikan Indonesia, Jl. DR. Setiabudi No.229, Isola, West Java Province, 40154, Indonesia
*e-mail: argiemanggalaoctashakty@upi.edu , tatangmuhtar@upi.edu , adang.sudrazat@upi.edu

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Abstract

This research is motivated by motor educability, and the motor ability of students is an essential factor in physical education learning. This study aims to determine the relationship between motor skills and motor skills on self-esteem in learning physical education. The method used in this research is descriptive quantitative with a dual paradigm design with two independent variables. This study used a simple random sample of 70 student subjects at SMP Negeri 1 Tanjungsari in the 2021/2022 academic year. The research findings and discussion show that: 1) Motor educability correlates significantly with students' self-esteem scores. The relationship between motor educability and student self-esteem is 97% or is at the level of a solid relationship. 2) Motor skills have a significant relationship with students' self-esteem. The relationship between motor skills and students' self-esteem is 98.4% or is at an extreme relationship level. 3) Motor and motor skills significantly relate to students' self-esteem. The relationship between motor educability and motor skills on students' self-esteem simultaneously or together is 98.6% or is at the level of a solid relationship. Motor skills have a significant relationship with students' self-esteem. The relationship between motor skills and students' self-esteem is 98.4% or is at the level of a solid relationship.

✉Alamat korespondensi: Jl. Dr. Setiabudhi No.29, Isola, Kec. Sukasari, Kota Bandung, Jawa Barat 40154

E-mail: argiemanggalaoctashakty@upi.edu

INTRODUCTION

Physical education is one of the unique curriculum links because it is characteristic of the learning process using the media of body movement activities to achieve learning goals. Physical education is an integral part of the entire education system. So in implementing physical education, learning must be directed

at achieving these educational goals. The purpose of Physical Education is not only the physical activity itself but to develop students' potential (multiple intelligences) through physical activity (Purnomo et al., 2022). This suggests that "Physical education is possible to replace the term human movement because it uses physical activity as a tool for obtaining comprehensive development in terms of one's physical, mental and emotional qualities" (Subarjah, 2016; Ramadan et al., 2020) Therefore, it can be understood that physical education aims to develop the physical domain, develop biological aspects, health, physical fitness, thinking ability, sensitivity to taste, emotional stability, social skills, self-image (self-esteem), reasoning and moral behaviour through movement activities and even sports, the use of learning media can be through motion activities, games involving basic movement abilities, sports games, even selected sports activities (Cunningham et al., 2003). However, often there are differences in the learning process, such as there are students who can learn it quickly and easily, and there are also those who seem to need help. This is reinforced by the expert's statement, "The sources of differences in terms of these skills can vary. This could be due to differences in physical terms, abilities (abilities), learning styles, attitudes, emotions, and past experiences related to the task being studied. All these factors are indeed interconnected and contribute to the mastery of skills (Lengkana, 2013).

Of the many factors that can affect the process and learning outcomes, motor educability and motor ability factors are also related to learning processes and outcomes. Motor ability and motor educability show various significant relationships with the starting point in learning (Aras et al., 2017; Cheon et al., 2012). motor educability is a person's ability to learn or perform new movements (new motor skills); the level of motor educability they have will affect learning or performing these new movements" (Zhan et al., 2021; Hadiana et al., 2020). Motor ability is a person's general ability to move. More specifically, the motor ability is a person's capacity to perform various movements that require courage in sports." (Ramadan et al., 2020; Jacob et al., 2020)

From some of the experts' statements above, it can be concluded that a learner's abilities are indeed different with various influential and interrelated factors and provide their respective relationships to the learning process and achievement of learning outcomes, in addition to the perception or assessment of each learner. Various self-assessments regarding the process of learning outcomes, such as there are students who are proud of their learning outcomes, happy, sad, disappointed and even compare their achievements with other students (Cidral et al., 2018; Suherman et al., 2021). The comparison is intended to answer fundamental questions that usually arise in me, such as who am I, am I loved, and am I able to overcome it? The child's answer to this question will shape the

child's self-assessment; this self-assessment is generally called self-esteem (Lai et al., 2022; Kuswari et al., 2019).

Self-esteem or self-esteem is a term that comes from Self, meaning oneself, while Esteem is appreciation. Self-esteem is the values in themselves, abilities and behaviours (Antczak et al., 2020; Ren et al., 2021). Based on this statement, it can be interpreted that self-esteem is a person's appreciation of himself because what is in a person is a strength that must be appreciated and developed.

From some of the statements above, it can be understood that motor educability, motor ability and self-esteem are crucial factors for students to learn, perform and develop various abilities of multiple intelligences in physical education learning. Because motor educability, motor ability and self-esteem possessed by students are illustrations of how fast, slow or easy it is for someone to learn and perform various forms of motion and perceive self-assessment of learning achievement. So it is clear that the motor educability, motor ability and self-esteem possessed by students need to be assessed and known to what extent they are related to the physical education learning process.

METHODS

The method used in this study is a quantitative descriptive method (Ramadan, Gilang & Juniarti, 2020) with a dual paradigm design with two independent variables (independent variable) and one dependent variable (dependent variable). The population in this study was 704 students, the sum of all grades VII and VIII at SMPN 1 Tanjungsari. The sample in this study is 10% of the population, so the sample obtained is 70.4. To adjust the sample to the number of classes available so that all classes get the same opportunity to be sampled, the authors round the sample to 70 students. So in 1 class, there are three samples. The measuring instrument that the researcher used consisted of three test items: the motor educability test obtained by the IOWA-Brace test, the motor ability test obtained by the Barrow Motor Ability test, and the self-assessment obtained by the self-esteem inventory (SEI) questionnaire.

FINDINGS AND DISCUSSION

Results of data processing with statistical approach using aids computer program SPSS 24.0. Based on the results of statistical hypothesis testing, the proposed regression equation model already meets the requirements in the sense of a close relationship between the independent and dependent variables. However, for the equation model to be acceptable econometrically, it must meet the classical assumptions, including tests for normality, linearity, multicollinearity, heteroscedasticity, and autocorrelation.

The normality test output results in table 1 obtained a significance value (Asymp. Sig 2-

talled) for Motor Educability is 0.073, for Motor Ability is 0.200 and for Self Esteem is 0.088. The significance value (Asymp. Sig 2-talled) of the three data is >0.05, which means that the three data are normally distributed so that regression analysis can be used.

Table 1 Normality Test

One-Sample Kolmogorov-Smirnov Test

		MOTOR EDUCABILITY	MOTOR ABILITY	Self Esteem
N		70	70	70
Normal Parameters[b]	Mean	4999.96	4999.97	4999.97
	Std. Deviation	999.921	372.293	1018.867
Most Extreme Differences	Absolute	.101	.093	.099
	Positive	.070	.093	.099
	Negative	-.101	-.071	-.076
Test Statistic		.101	.093	.099
Asymp. Sig. (2-tailed)		.073[c]	.200[c,d]	.088[c]

From the linearity test based on the data contained in table 2, it shows that the regression line of the Motor Educability variable with Self Esteem in Deviation from Linearity is 0.270 > 0.05, thus the Self Esteem and Motor Educability variables have a linear relationship.

Table 2 Linearity Test of Motor Educability and Self Esteem

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
SELF-ESTEEM * MOTOR EDUCABILITY	Between Groups	(Combined)	177141 77.750	15	1180945 .184	1.183	.313
		Linearity	273875.390	1	273875.390	.274	.603
		Deviation from Linearity	174403 02.360	14	1245735 .883	1.248	.270
	Within Groups		539139 68.190	54	998406.818		
	Total		716281 45.940	69			

From the linearity test based on the data contained in table 3, it shows that the regression line of the Motor Ability variable with Self Esteem at Deviation from Linearity is 0.447 > 0.05, thus the Self Esteem and Motor Ability variables have a linear relationship.

This test is used to test whether there is a relationship between independent variables and to test whether there is a correlation between the independent variables in the regression equation. In the regression model, it can be seen from the tolerance value and Variance Inflation Factor (VIF). The general value used to indicate the presence of multicollinearity is a tolerance value <0.10 or a VIF value > 10 with a collinearity level of 0.50, and based on table 4 the results of the multicollinearity analysis there is no significant multicollinearity between each independent variable in the regression model, because the tolerance value is greater of 0.10, which is 0.914 and VIF is smaller than 10.00, namely 1.094.

Table 3 Linearity Test of Motor Ability and Self Esteem

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
SELF-ESTEEM * MOTOR ABILITY	Between Groups	(Combined)	40753592.280	38	1072462.955	1.077	.420
		Linearity	2007406.091	1	2007406.091	2.016	.166
		Deviation from Linearity	38746186.190	37	1047194.221	1.051	.447
	Within Groups		30874553.670	31	995953.344		
	Total		71628145.940	69			

Based on table 4 all variables X with a residual value of > 0.05 so that it can be said that the regression model obtained is limited to heteroscedasticity cases. The significance value for 2-tailed Motor Educability is 0.324 and for Motor Ability is 0.052 which means > 0.05 which means that the residual variance of this regression model is homogeneous or free from heteroscedasticity cases.

Table 4 Heteroscedasticity Test

Correlations

			Motor Educability	Motor Ability	Abs_Res
Spearman's Rho	Motor Educability	Correlation Coefficient	1.000	.305*	.120
		Sig. (2-Tailed)	.	.010	.324
		N	70	70	70
	Motor Ability	Correlation Coefficient	.305*	1.000	.233
		Sig. (2-Tailed)	.010	.	.052
		N	70	70	70
	Abs_Res	Correlation Coefficient	.120	.233	1.000

	Sig. (2-Tailed)	.324	.052	.
	N	70	70	70

*. Correlation Is Significant At The 0.05 Level (2-Tailed).

Based on this, it can be concluded that the tcount value of the educability motor is 33,544 with a sig of 0,000. This shows that the count value is greater than the table value of 1.998 and the Sig value is smaller than 0.05. This means that the motor educability variable has a significant relationship to student self-esteem or the motor educability variable has a significant relationship to self-esteem in student physical education learning.

Meanwhile, the R Square figure is 0.971 or 97%. This shows that the percentage of the motor educability relationship to student self-esteem is 97% or is at an extreme relationship level.

Table 5 Simple Linear Regression Analysis (Motor Ability)

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-8350.746	293.307		-28.471	.000
	MOTOR ABILITY	2.670	.059	.984	45.642	.000

a. Dependent Variable: SELF ESTEEM

Based on table 5, it is concluded that the tcount value of motor ability is 45,642 with a sig of 0.00. This shows that the count value is greater than the table value of 1.998 and the Sig value is smaller than 0.05. This means that the motor ability variable significantly relates to students' self-esteem in learning physical education. motor ability is significantly related to students' self-esteem in physical education.

Meanwhile, the R Square number is 0.984 or 98.4%. This shows that the percentage relationship between motor ability and self-esteem is 98.4% or at a very strong relationship level.

Table 6 Multiple Regression Analysis

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	6118.754	733.691		-8.340	.000

MOTOR EDUCABILITY	.278	.085	.275	3.280	.002
MOTOR ABILITY	1.946	.227	.717	8.555	.000

a. Dependent Variable: SELF ESTEEM

From the regression analysis results in table 6, look at the output model summary. Meanwhile, the R number is 2,086. This shows a very strong relationship between motor educability (X1) and motor ability (X2) and students' self-esteem values. It was concluded that the Fcount value of the educability motor was 196,429 with a sig of 0,000. This shows that the Fcount value is greater than the Ftable value of 3.07 and the Sig value is less than 0.05. This means that the motor educability and motor ability variables have a significant relationship to student self-esteem or the motor educability and motor ability variables have a significant relationship to student self-esteem.

Determination analysis in multiple linear regression is used to determine the percentage contribution of the independent variables (X1, X2,…Xn) simultaneously to the dependent variable (Y). Based on the table above, the R2 (R Square) number is 0.986 or (98.6%). This shows that the percentage contribution of the independent variables (motor educability and motor ability) to the dependent variable is 98.6% or at an extreme relationship level.

CONCLUSION

This study aims to find out the relationship between motor educability and motor ability on self-esteem in physical education learning. Based on the findings of the analysis, the conclusions regarding the results of the study are as follows: 1) Motor educability has a significant relationship to students' self-esteem values in physical education learning. The relationship between motor educability and student self-esteem is 97% or at a very strong relationship level; 2) Motor ability has a significant relationship to students' self-esteem in learning physical education. The magnitude of the relationship between motor ability and student self-esteem is 98.4% or at a very strong relationship level; 3) Motor Educability and motor ability together have a significant relationship to students' self-esteem in learning physical education. The magnitude of the relationship between motor educability and motor ability to students' self-esteem simultaneously or together is 98.6% or at a very strong relationship level.

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