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## Physical Health: Study Habits, Nutrition and Economic Conditions

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#### Abstract

The aim of this research is to find out whether the study habits, eating patterns and economy of children at the Kerinci 7 State High School have a direct or indirect influence on their physical health. This quantitative research uses comparative causal theorem. The population of this study was 101 students. The research instruments used were a questionnaire on study habits and economic conditions, the Indonesian Student Fitness Test (TKSI) for physical fitness, and body mass index (BMI) measurements for nutrition. The results of the research and analysis are as follows: (1) With Py1 of 0.316 or 9.98%, study habits have a direct effect on physical fitness. 2. With a Py2 of 0.306 or 9.93%, nutrition has a direct effect on physical fitness. (3) economic conditions have a direct influence on physical fitness with Py3 of 0.461 or 21.25%. 4. With a p-value of 0.289, the influence of study habits on freshness is 0.05. (4) With a p-value of 0.235 > 0.05, it shows that economic conditions have no influence on physical fitness. (4) With an Rsquare value of 0.399 or 39.9%, study habits, nutrition and economic conditions have an influence on physical fitness.

#### How to Cite

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# **INTRODUCTION**

In the field of education, student fitness is an important factor that can increase mobility and help students achieve their maximum academic potential (Arifin, 2018), having physical fitness in a person will certainly create enthusiasm for daily activities (Zhang et al., 2023). Physical fitness is defined as the body's ability to carry out physical and psychological activities without experiencing extreme fatigue and still having energy for other activities to fill free time (Yip et al., 2024).

Work load, work capacity, and the additional burden of the work environment related to physical activity, as well as psychological and social aspects, all have an impact on work productivity (Ruíz-Roso et al., 2020). Relevant job aptitude is the ability to do work within a specified time period. Although additional stresses generated by the work environment include physical, chemical, and workforce-specific variables such as biological, physiological, and psychological. Everyone's productivity is different; some are influenced by malnutrition in the body, poor physical fitness, lack of rest, and so on (Andriani et al., 2022). Education can increase the productivity of human life through learning physical education, sports and health (Jude et al., 2015; Pagliai et al., 2021)

Good study habits can improve physical fitness because optimal learning will produce good learning results. Students with good study habits will achieve high learning outcomes in accordance with the objectives of learning activities (Jazirotunnisa et al., 2012). Study habits are not natural talents or innate traits that students have had since childhood, but rather are behaviors that are consciously learned over time and repeated over time, various behaviors that are accustomed to eventually being carried out spontaneously (Januar et al., 2013). as an automatic response to a learning process, and good body condition is needed in PJOK to support good study habits.

By conducting this research, the researcher aims to pay attention to related research variables, such as the direct influence of study habits, nutritional status, economic level on physical fitness, and the indirect influence of study habits, nutritional status on physical fitness through economics and the simultaneous influence that significant relationship between study habits, nutritional status and economic level on physical fitness.

## **METHODS**

This research uses quantitative research with a comparative causal approach, which aims

to determine direct and indirect effects, using path analysis.

This research involved students from 7 Kerinci state high schools, with a population of 101 people consisting of 53 men and 48 women. Therefore, the research took samples using simple random sampling, so that 30 participants were sampled in this study.

The method used in this research is to measure physical fitness using the Indonesian Student Fitness Test (TKSI) instrument which consists of 6 items such as, Hand Eye Coordination Test, Reaction Time Test, Agility Test, Explosive Power Test, Arm and Shoulder Muscle Endurance Test, Cardiorespiratory Endurance Test. For study habits, a questionnaire with 30 questions was used, while nutritional status used Body Mass Index (BMI), and economic level was measured using a questionnaire with 25 statement items.

#### RESULTS AND DISCUSSION

Based on the results obtained from 30 samples, the following results were obtained in **Table 1.** 

**Table 1.** Research data on student study habits

	Interval Class			
Interval Class	Percent Absolut	Percent	Categories	
35,79-42,79	8	27%	Very low	
42,80-48,80	7	23%	Low	
48,81-53,81	4	13%	Currently	
53,82-60,82	7	23%	Tall	
60,83-67,83	4	13%	Very high	

**Table 1.** Shows the results of the study habits of 30 samples, there are 4 people (13%), are in the very good category, 7 people (23%) are in the high category, 4 people (13%) are in the medium category, 7 people (23%) are in the low category and as many as 8 people (27%) were in the very low category.

**Table 2.** Percentage of nutritional status of Kerinci 7 State High School students

Nutritional	Interval Class		
Status	Percent Absolut	Percent	
Kurang	1	3%	
Normal	24	80%	
Lebih	5	17%	
Obesitas	0	0%	

**Table 2.** Showing the results of the nutritional status of 30 samples, there was 1 person (3%), in the under category, 24 people (80%) in the normal category, 5 people (17%) in the over category, and none in the obesity category.

**Table 3.** Descriptive statistics on the economic level of Kerinci 7 State High School students

Total Score			Percent
36 68		53%	2,1176
37	68	54%	2,1765
34	68	50%	2,5294
35	68	51%	1,6471
35	68	51%	2,0588
32	68	47%	1,8824
33	68	49%	1,9412
32	68	47%	1,8824
34	68	50%	2,0588
36	68	53%	2,4706
32	68	47%	1,8824
35	68	51%	2,0588
25	68	37%	1,9412
33	68	49%	1,9412
34 24	68	50%	2,0000
	68	35%	1,7647
23	68	34%	1,3529
34	68	50% 35%	2,0000
24	68		1,6471
39 29 23 31	68	57%	2,2941
	68	43%	1,7059
	68	34%	1,5882
	68	46%	1,8235
30	68	44%	1,5294
30	68	44%	1,4706
30	68	44%	1,7647
31	68	46%	1,4706
35	68	51%	2,0588
36	68	53%	2,1176
30	68	44%	1,3529
952	2040	1400%	56,529

**Table 3.** Through calculations, an average score of 56.5294118: 30 = 2 (rounding) is obtained, which is in the very appropriate category, and an average percentage of 1400: 30 = 47% (rounding) is in the low category, meaning that

the economic level of functioning of parents is low at 47% to meet the body's needs in obtaining good physical fitness for Kerinci 7 State High School students in accordance with functional structural theory.

**Table 4.** Frequency Distribution of Physical Fitness of Female Students

Value Range		Category	Fr	Per
27	30	Very low	0	0%
23	26	Low	8	27%
19	22	Currently	21	70%
15	18	Tall	1	3%
0	14	Very high	0	0%

**Table 4.** shows the physical fitness results of the 30 samples, there are participants who have the very good category, 8 people (27%) are in the good category, 21 people (70%) are in the medium category, 1 person (3%) is in the low and for the very low category there are none.

That the normality test using Kolmogrrov-Smirno results in normally distributed study habits with (p-value) = 0.200 > 0.05. And the nutritional status is normally distributed with (p-value) = 0.073 > 0.05. The economic level is normally distributed with (p-value) = 0.115 > 0.05. Meanwhile, physical fitness has a normal distribution with (p-value) = 0.112 > 0.05.

The Sig value <0.05 is obtained, thus it can be said that the variables tend to form a straight line (Linear).

The value obtained is Rsquare = 0.399 and the anova table obtains the Sig value. =  $0.004 < \alpha = 0.05$ , then the decision is that H0 is rejected and Ha is accepted. This means that there is an influence of study habits, nutritional status and economic level together on physical fitness. Based on the Rsquare value = 0.399, it shows that the influence of study habits, nutritional status and economic level together on physical fitness. It is 39.9% while the rest is influenced by other factors not explained in this study

Based on the research results, it can be said that physical fitness really helps children improve their physical performance and increase their cardiovascular endurance, which is influenced, among other things, by their body composition. As found in this research, study habits have a significant direct influence of 9.98%, and nutritional status has a significant direct influence on physical fitness of 9.93%. Economic level has a significant influence of 21.25%, while for indi-

rect influence there is no There is a relationship between study habits and physical fitness through economic level, and there is no indirect influence between nutritional status and physical fitness through economic level. It has been proven that there is an influence on study habits, nutritional status and economic level together with physical fitness.

Physical fitness is a condition that is highly valued by everyone (Komaini, 2017). People can feel more dynamic and enthusiastic and increase their work productivity if they are physically fit (Darmawan, 2017; Lismana et al., 2022). Ukpong & George, (2013) stated that students with positive study habits achieve better learning outcomes and vice versa, that physical fitness is very important for daily activities (Idham et al., 2022)

Previous research suggests that students who practice good study habits are better individuals with their own strengths, personalities and abilities (Legianto et al., 2022). Good study habits will provide positive results, as will developing physical fitness. Numerous studies show that the more energy required to meet each body's needs, the more effort and energy is expended to achieve health and fitness. Because nutritional status and calorie consumption are strongly correlated, physical fitness and nutritional status have a very close relationship (Sepriadi, 2017). And adequate food intake will significantly improve brain function during physical activity and learning (Mahardika et al., 2022).

By carrying out research, researchers can say that physical fitness is something that everyone must have, with good physical fitness, daily activities will certainly run well, and conversely, if physical fitness is not good, activities will be hampered, this is influenced by several factors. Factors such as nutritional status, study habits, and economic level are things that influence physical fitness.

## **CONCLUSION**

Based on research, it can be concluded that there is a direct influence of study habits, nutritional status, and economic level on physical fitness and there is no indirect influence of study habits, nutritional status on physical fitness through economic level. There is an influence of study habits, nutritional status and economic level together on physical fitness.

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