

The Influence of Study Habits, Nutritional Status and Economic Level on the Physical Fitness of SMA N 7 Kerinci Students



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ABSTRACT: This research was motivated by the low physical fitness of students obtained based on observations and the results of the author's interview at SMA N 7 Kerinci which showed that students had poor learning habits, unfulfilled nutrition and the economic level of parents who were in the medium and low categories. The purpose of this study was to see how the direct influence or indirect influence between study habits, nutritional status and economic level on the physical fitness of students of SMA N 7 Kerinci. This type of research is quantitative research with a comparative causal approach with a sample of 30% of the existing population, namely 30 students taken using random sampling techniques. The research instruments used were questionnaire sheets, fitness tests of Indonesian students and body mass index (BMI) measurements. The data obtained will be analyzed using path analysis techniques (Part Analysis). The results of research and analysis show: (1) There is a direct influence of study habits on physical fitness, in β_1 of 0.316 or 9.98%. (2) There is a direct influence of nutritional status on physical fitness, in β_2 of 0.306 or 9.93%. (3) There is a direct effect of economic level on physical fitness, in which β_3 is 0.461 or 21.25%. (4) There is no effect of study habits through economic level on fitness, in P-value of $0.289 > 0.05$. (5) There is no effect of nutritional status through economic level on physical fitness, in p-value of $0.235 > 0.05$. (6) There is an influence of study habits, nutritional status and economic level together on physical fitness with an R^2 value of 0.399 or 39.9%.

KEYWORDS: Fitness, Study habits, nutrition, economy

I. INTRODUCTION

Cunningham et al., (2015) Education is a major factor in the formation of a person's individual. Education plays a very important role in shaping a person's good and bad. (Ruafedah, 2020). An education system with good quality is expected to produce a quality next generation and be able to bring progress to society, state and the life of the nation and state. Education includes formal, non-formal and informal education can complement and enrich each other. at the education level (Ogundari & Awokuse, 2018; Rhodes et al., 2017). Education consists of several levels, namely basic education (SD), secondary education (SMP), upper education (SMA), and higher education (University).

As stated in the Law of the Republic of Indonesia concerning the National Education System Number 11 of 2022 article 3 that national sports education functions to develop physical, spiritual, and social abilities and shape the character and personality of the nation. Education is the most important aspect to improve one's quality of life towards a better or more productive (Joni et al., 2023). Productivity is a universal concept that creates more goods and services to meet human needs, through the use of limited resources (Jatnika, 2022).

Ruíz-Roso et al., (2020) Basically, productivity is influenced by three factors, namely workload, work capacity and additional load of the work environment associated with physical activity, psychological and social factors affect the workforce. Relevant work ability has the ability to complete the work within the given time. Although the additional burden caused by the work environment includes physical, chemical, and factors of the workforce itself, including biological, physiological and psychological. Everyone's productivity is different, some depend on the availability of nutrients in the body that are lacking, low physical fitness, less rest time and so on (Andriani, 2022). The productivity of human life can be obtained from education through physical education, sports and health learning (Eggoh et al., 2015; Pagliai et al., 2021).

Physical education is part of the overall subjects taught in schools and cannot be separated from other education, even a very important part of education in supporting other educational processes (Sin & Hudayani, 2020). This is in accordance with Law of the Republic of Indonesia Number 11 of 2022 concerning the National Sports System article 26 paragraph 1 which states

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that "Coaching and development of educational sports is carried out and directed as a systematic and sustainable unit with the national education system". The development and coaching of sports education is an effort to increase potential in catching up, especially in physical education learning in schools. Physical education in high school should lead to improved physical fitness, motivation, physical growth and development, intellectual development, learning and mental achievement. Physical education has an important role, namely providing opportunities for students to be directly involved in various learning experiences through physical and health activities carried out systematically (Mustafa & Dwiyoogo, 2020).

Thus, physical education in schools is expected to improve physical fitness, learning motivation and learning achievement. Physical education has a comprehensive purpose that includes psychomotor / skills, cognitive / knowledge, affective / attitudinal aspects. Through physical education, students will be directed to become strong human beings both physically and spiritually (Alif & Sudirjo, 2019). Physical education and sports in schools are taught to improve physical fitness. Through physical education learning at school, students are expected to be able to improve their physical fitness. So that later students can become children who excel, healthy, fit and have noble morals. Physical fitness is defined as the body's ability to carry out physical and psychological activities without experiencing extreme fatigue and there is still energy for other activities in filling spare time. For this reason, it is necessary to have physical fitness so that the activities that have been planned run as they should.

Physical fitness can be influenced by good study habits, because optimal learning will produce good learning results. Wijaya (2019) explained that with high learning habits, students will get high learning outcomes according to the objectives of learning activities. According to Faturizkiyah (2020) that learning habits are not natural talents or innate traits that students have since childhood, but are behaviors that are learned consciously for some time and repeated all the time, various behaviors are accustomed so that they are finally carried out spontaneously as an automatic response to a learning process, to support good study habits, good body conditions are needed in PJOK Known for physical fitness. With this, students will learn physical education well, so that students will strive to improve fitness in order to remain accomplished.

In addition to learning habits, another factor that affects physical fitness is the nutritional state of students by looking at their nutritional status. Nutritional status is a measure of success in fulfilling nutrition for children indicated by the body weight and height of students (rosita et al., 2020). Nutritional status also greatly affects physical fitness, life productivity and thinking power (Amin, 2019). If a person is less fulfilled nutrition, it will inhibit physical ability, motivation and enthusiasm in carrying out daily activities. Nutritional problems in developing countries in general are still dominated by problems of lack of protein energy (KEP), iron nutrition anemia (AGB), disorders due to iodine deficiency (GAKY), lack of vitamins (KVA) and obesity in big cities (Suardi, et al, 2023). Indonesia as a developing country is also still experiencing student nutrition problems as meaning that while the problem of undernutrition has not been overcome thoroughly, it has emerged new, namely in the form of more malnutrition). Based on basic health research (Riskesmas) in 2010, it is known that prevalence is malnourished (body weight according to age). According to WHO in (Ministry of Health. 2009), an area is said to experience community nutrition problems if it experiences a lack of 10% of the number of young children available. Based on this, Indonesia is still experiencing community nutrition problems because the number of undernourished toddlers is still above 10% (Ministry of Health of the Republic of Indonesia. 2009).

Parents who are highly educated will certainly have a decent / good job, and have a high income that brings them to high economic status, so parents with such criteria will prioritize and give their best to support the growth and development of their children (Rahayu, 2019). Another case with parents who have low education, then their knowledge, skills and abilities are also low. Thus, it is assumed that there will be fewer job opportunities and low incomes that bring them to low economic status so that to meet needs will be difficult to meet. Therefore, parental education and parental economic status are continuous things that affect how much physical activity level.

The problem encountered is the low learning habits of students. Based on observations made by the author at SMA Negeri 7 Kerinci, it was found that 70% rarely learned. The reason conveyed by students is that after school students prefer to play with their friends, some others help their parents work, play games, watch television and other activities. Learners learn only when there is schoolwork. Even though good study habits will provide good learning results, one of which is physical education learning. With good learning results, it will improve physical fitness, good learning enthusiasm, and good achievement. (Ukpong & George, 2013).

Another reality obtained in the field of students is getting tired quickly in participating in activities at school, especially sports. In two hours of lessons, not all students are willing to stay in the field until class hours are over because they are tired. Then, when studying in class, students are also often sleepy and even fall asleep, even though they don't sleep late. Through

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field observations related to food consumed, that the food consumed every day has not met the criteria for adequate nutrition due to the economic level of most parents of students in the medium to lower category.

The ability or economy of parents to pay attention to sufficient needs for children will affect the growth and development of children. Sometimes only consume vegetables, other times consume tofu and fried tempeh and fish occasionally. So, naturally, the physical fitness of students is also disrupted because of unmet balanced nutritional needs. Based on some of the studies above, there are many factors that can determine the physical fitness of students, namely study habits, nutritional status, and economic level. Therefore, there needs to be a deeper study to see how the direct and indirect influence between study habits, nutritional status and economic level on the physical fitness of SMA N 7 Kerinci students.

II. MATERIAL AND METHODS

This type of research is quantitative research with a comparative causal approach, the purpose of this study is to determine the influence both directly and indirectly of study habits, nutritional status, and economic level on the physical fitness of students of SMA N 7 Kerinci. In quantitative research like this using simple regression data analysis techniques and regression students. A sample of 30% of the existing population of 30 students was taken using random sampling techniques. The research instruments used were questionnaire sheets, fitness tests of Indonesian students and body mass index (BMI) measurements. The data obtained will be analyzed using path analysis techniques.

Data analysis techniques are carried out descriptively and inferentially, the use of descriptive data analysis techniques is to find an overview of the characteristics of the spread of scores / values of each variable studied. Descriptive analysis is used in terms of data presentation, central size, and spread size. The presentation of data uses frequency distribution lists and histograms. Central measures include mean (Mean), middle mean (Median), and frequently occurring values (Mode). Spread measures include variance and standard deviation. While inferential analysis / causal analysis is used to test analysis requirements and hypotheses using path analysis.

Kadir & Asrohah, (2015) Path analysis is "an analytical technique used to study causal relationships between independent variables and bound variables where these causal relationships are arranged in the form of hypothetical models based on scientific substance, namely theoretical learners". Next Riduwan, (2010) "Path analysis is used to analyze the pattern of relationships between variables with the aim of determining the direct or indirect influence of a set of independent variables (endogenous) on the dependent variable (exogenous)". Path analysis (Part Analysis) is a means or analysis technique used to study causal relationships with the aim of determining the direct or indirect influence of a set of independent variables (endogenous) on bound variables (exogenous) where these causal relationships are arranged in the form of hypothetical models based on scientific substance, namely theoretical learners.

Before hypothesis testing, analysis requirements testing is first carried out including: (1) data description, (2) analysis requirements test, namely normality test, (3) regression linearity test and regression significance test, and (4) path analysis which includes: model testing and hypothesis testing.

III. RESULTS AND DISCUSSION

The description of the data that will be submitted below is to provide a general overview of the dissemination of data that has been carried out in the field. The sample in this study was 30 students of SMA N 7 Kerinci. The study was conducted in March 2023. The research was conducted by distributing questionnaires, conducting tests and measuring BMI to take data addressed to grade X students of SMA N 7 Kerinci. The research was conducted at SMA N 7 Kerinci.

1. Study Habits

Before distributing the questionnaire to respondents, the author has conducted a questionnaire trial first with the following results:

Table 1. Results of the study habit questionnaire trial

N	Number of Statements	Mean Rcount	Rtable	Significance	Decision
10	30	0,884	0,632	0,05	Valid

The results obtained are in accordance with the table above, namely the questionnaire that will be used as an instrument of study habits has been validated with the number of Rcalculate > Rtable with a significance of 0.05 and the results are valid. For the results of research on student learning habits through the distribution of questionnaires obtained the following data:

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Table 2. Research data on student study habits

No	Interval	Kategori	Frekuensi	Persentase
1	118 123	Very high	3	10%
2	112 117	Tall	5	17%
3	105 111	Keep	7	23%
4	99 104	Low	7	23%
5	93 98	Very low	8	27%
Sum			30	100%

From the table above, it is known that students' learning habits are in the very high category as many as 3 students (10%), are in the high category as many as 5 students (17%), are in the medium category as many as 7 students (23%), are in the low category as many as 7 students (23%), and are in the very low category as many as 8 students (27%).

2. Nutritional Status

Measurement of nutritional status in this study was carried out using BMI limit standards. Based on the results of nutritional status research which is divided into four categories, namely less, normal, more and obesity. It can be explained in the table below:

Table 3. Percentage of nutritional status of SMA N 7 Kerinci students

Nutritional	Frekuensi	Persentase (%)
Less	1	3%
Usual	24	80%
More	5	17%
Obesity	0	0%
Sum	30	100%

From the table above, it is known that the nutritional status of students is in the category of less than 1 student (3%), is in the normal category of 24 students (80%), is in the category of more than 5 students (17%), is in the obesity category of 0 students (0%).

3. Economic Level

The economic level of parents studied in this study is based on functional structural theory that views every structure, both micro and meso and macro has a function and contributes to the survival of the structural system. On that basis, instrument items were developed in the form of questionnaires on the economic level of parents of students. Before distributing the questionnaire to respondents, the author has conducted a questionnaire trial first with the following results:

Table 4. Results of the economic level questionnaire trial

N	Number of Statements	Mean Rcount	Rtable	Significance	Decision
8	17	0,884	0,787	0,05	Valid

The results obtained are in accordance with the table above, namely the questionnaire that will be used as an economic level instrument has been validated with the number of Rcalculate > Rtable with a significance of 0.05 and the results are valid. So that data is obtained that is distributed in the following.

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Table 5. Descriptive statistics of the economic level of students of SMA N 7 Kerinci

No	sum Score	Score Maximal	Pesentase	Mean
1	36	68	53%	2.11764706
2	37	68	54%	2.17647059
3	34	68	50%	2.52941176
4	35	68	51%	1.64705882
5	35	68	51%	2.05882353
6	32	68	47%	1.88235294
7	33	68	49%	1.94117647
8	32	68	47%	1.88235294
9	34	68	50%	2.05882353
10	36	68	53%	2.47058824
11	32	68	47%	1.88235294
12	35	68	51%	2.05882353
13	25	68	37%	1.94117647
14	33	68	49%	1.94117647
15	34	68	50%	2
16	24	68	35%	1.76470588
17	23	68	34%	1.35294118
18	34	68	50%	2
19	24	68	35%	1.64705882
20	39	68	57%	2.29411765
21	29	68	43%	1.70588235
22	23	68	34%	1.58823529
23	31	68	46%	1.82352941
24	30	68	44%	1.52941176
25	30	68	44%	1.47058824
26	30	68	44%	1.76470588
27	31	68	46%	1.47058824
28	35	68	51%	2.05882353
29	36	68	53%	2.11764706
30	30	68	44%	1.35294118
Jumlah	952	2040	1400% 47%	56.5294118 2

Through calculations, an average score of 56.5294118: 30 = 2 (rounding) in the very appropriate category, and an average percentage of 1400: 30 = 47% (rounding) in the low category, means that the economic level is functioned by parents who are low at 47% to meet the needs of the body in obtaining good physical fitness in SMA N 7 Kerinci students in accordance with functional structural theory.

4. Physical Fitness

The results of physical fitness research of grade X students of SMA N 7 Kerinci are categorized into 5 categories using the Indonesian Student Fitness Test formula. The data obtained as contained in the following table:

Table 6. Frequency Distribution of Physical Fitness of Female Students

No	Percentage	Frequency	Category	Frequency	Persentase
1	27	30	Very good	0	0%
2	23	26	Good	8	27%

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3	19	22	Keep	21	70%
4	15	18	Low	1	3%
5	0	14	Very low	0	0%
Sum				30	100%

The table above obtained the physical fitness of grade X students of SMA N 7 Kerinci as a whole, namely as many as 0 students (0.00%) very well, 8 students (27%) with good category, 21 students (70%) with medium category, 1 student (3%) with low category, and 0 students (0%) with very low category. The highest frequency is in the medium category, which is 21 students (70%). Thus, the physical freshness of grade X students of SMA N 7 Kerinci as a whole is included in the medium category. Test Requirements analysis is carried out as a basis for consideration to select and establish data analysis techniques used in hypothesis testing. The testing requirements of the analysis include, normality testing and regression linearity testing.

This normality test is tested using the Kolmogrov-Smirnov test according to the book's instructions (Kadir 2016). Normality testing using the Kolmogrov-Smirnov test is carried out with the help of SPSS 20.0 and the basis for decision making as follows:

Table 7. Normality Test Kolmogrov-Smirno

	Study Habits	Nutritional Statuz	Economic Level	Physical Fitness
Test Statistic	089	152	144	114
Asymp. Sig. (2-tailed)	200	073	115	112

From the table above, in the study habit variable obtained a statistical test of 0.089, this number is the same as the results manually and in Asymp Sig (2-tailed) of 0.200 or can be written as a probability value (p-value) = 0.200 > 0.05 or H0 accepted, thus the learning habit variable is normally distributed. In the Nutritional Statuz variable, a statistical test of 0.152 is obtained, this figure is the same as the results in aging and in Asymp Sig (2-tailed) of 0.073 or can be written as a probability value (p-value) = 0.073 > 0.05 or H0 is accepted, thus the variable nutritional status is normally distributed. In the economic level variable, a statistical test of 0.144 is obtained, this number is equal to the results in a manual manner and in Asymp Sig (2-tailed) of 0.115 or can be written as a probability value (p-value) = 0.115 > 0.05 or H0 is accepted, thus at the variable economic level is normally distributed. In the physical fitness variable, a statistical test of 0.114 is obtained this number is the same as the results in a manual manner and in Asymp Sig (2-tailed) of 0.112 or can be written as a probability value (p-value) = 0.112 > 0.05 or H0 is accepted, thus in the physical fitness variable is normally distributed.

The Linearity Test aims to see whether each data on Learning Habits (X1), Nutrition Statuz (X2), and Economic Level (X3) tends to form a Linear (straight) line with Physical Fitness (Y). Carried out with the help of the SPSS 20.0 program and the basis for decision making as follows:

Table 8. Linearity Test Summary

	Uji Linieritas	Sig,	P-Value	Information
Y atas X1		0,548	0.05	Linier
Y atas X2		0,806		
Y atas X3		0,967		
X3 atas X1		0,618		
X3 atas X2		0,730		

Based on the table above, the value of Sig. < α = 0.05 is obtained. In other words, it can be concluded that variables tend to form straight lines (Liner).

1. Hypothesis Testing

Hypothesis testing in this study uses path analysis through 2 (two) structural model tests. Testing on structural model 1 is Learning Habit variables (X1), Nutritional Status (X2), Economic Level (X3) and testing on structural model 2 namely Learning Habits (X1), Nutritional Status (X2), and Economic Level (X3) with Physical Fitness (Y). Through these two structural model tests, later the value of the path coefficient of each variable studied can be calculated and answer the hypothesis that has been proposed in this study

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Table 9. Summary of Path Coefficients Between Research Variables

Model	Variable	Koef Beta	Sig.	P-Value	information
Structural 1	X ₁ X ₃ (P ₃₁)	-0.107	0,578	0,05	Insignificant
	X ₂ X ₃ (P ₃₂)	-0.139	0,471		Insignificant
Structural 2	X ₁ Y (P _{y1})	0,316	0,049		Significant
	X ₂ Y (P _{y2})	-0,306	0,058		Significant
	X ₃ Y (P _{y3})	0.461	0,006		Significant

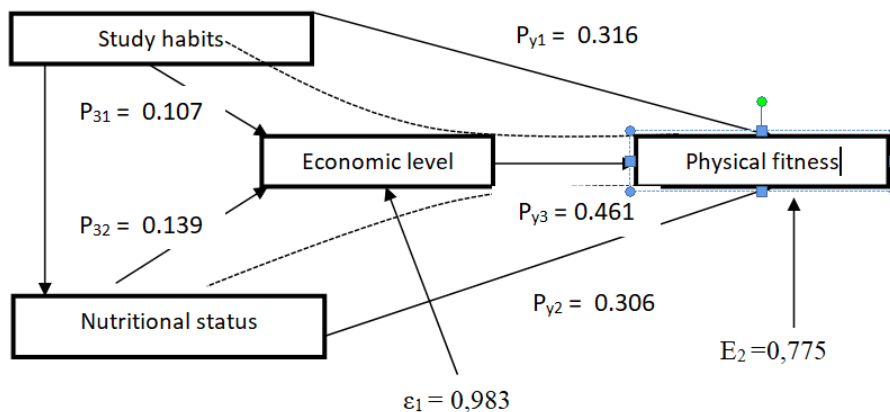


Figure 1. Combined Interstructural Model Testing

2. Testing Research Hypotheses Based on Structural Models

a. Hypothesis 1

Ha: There is a direct influence of study habits on physical fitness (Ha accepted) Based on the results above, the magnitude of the direct influence of study habits on physical fitness is 9.98%, while the rest is influenced by other factors that are not explained in this study.

b. Hypothesis 2

Ha: There is a direct influence of nutritional status on physical fitness (Ha accepted) Based on the results above, the magnitude of the direct influence of study habits on physical fitness is 9.93%, while the rest is influenced by other factors that are not explained in this study.

c. Hypothesis 3

Ha: There is a direct influence of economic level on physical fitness (Ha accepted) Based on the results above, the magnitude of the direct influence of study habits on physical fitness is 21.25%, while the rest is influenced by other factors that are not explained in this study.

d. Hypothesis 4

Ha: There is an indirect influence of study habits on physical fitness through the economic level (Ha rejected) Based on the results of the analysis test of each path coefficient, getting the results P31 = - 0.107 , p-value = 0.578 / 2 = 0.289 > 0.05 or H0 accepted and Ha rejected hereby it can be concluded that there is no influence of study habits through the economic level on physical fitness

e. Hypothesis 5

Ha: There is an indirect influence of nutritional status on physical fitness through the economic level (Ha rejected) Based on the results of the analysis test of each path coefficient, obtaining the results P32 = - 0.139, p-value = 0.471/2 = 0.235 > 0.05 or H0 accepted and Ha rejected hereby it can be concluded that there is no effect of nutritional status through economic level on physical fitness.

f. Hypothesis 6

Ha: There is an influence of study habits, nutritional status and economic level, together with physical fitness (Ha accepted) Based on the table (model summary), obtained the value of Rsquare = 0.399 and the table of anova obtained the value of Sig. =

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$0.004 < \alpha - 0.05$, then the decision is H_0 rejected and H_a accepted. That is, there is an influence of study habits, nutritional status and economic level together on physical fitness. Based on the value of $R^2 = 0.399$ shows that the magnitude of the influence of study habits, nutritional status and economic level together on physical fitness. It was 39.9% while the rest was influenced by other factors not described in the study

DISCUSSION

Physical fitness is a state that is highly desired by everyone. With physical fitness, people will be able to appear more dynamic / enthusiastic and create work productivity. (Darmawan, 2017). Ukpong & George, (2013) suggests that students with good study habits will achieve good learning outcomes and vice versa. Physical fitness is very useful for children to support physical work capacity and increase cardiovascular endurance, one of which is influenced by body composition (Sepriadi, 2017).

1. There is a significant direct influence of Study Habits on the Physical Fitness of students of SMA N 7 Kerinci

Based on research conducted related to the influence between study habits and physical fitness of SMA N 7 Kerinci students, significant results were obtained by 9.98%, and the rest were influenced by other factors not explained in this study. In a sense, that physical fitness is directly influenced by one's habits, one of which is study habits. Good study habits carried out by students improve the quality of students as individuals who have their abilities, personalities and skills (Legianto et al., 2022). With good study habits, the results achieved will also be good as it is physical fitness learning. So it is clear that, study habits have a direct effect on a person's physical fitness level.

2. There is a significant direct influence on nutritional status on the physical fitness of students of SMA N 7 Kerinci

Based on research conducted related to the influence between nutritional status and physical fitness of SMA N 7 Kerinci students, significant results were obtained of 9.93%, and the rest were influenced by other factors not explained in this study. There have been many studies that prove that good physical fitness requires adequate nutritional assumptions (Anggraeni, 2022). The more energy and effort made to obtain health and fitness, the more energy that must be met according to the needs of each body. Physical fitness is very closely related to nutritional status because nutritional status is closely related to calorie intake (Sepriadi, 2017).

3. There is a significant direct influence on the economic level on the physical fitness of students of SMA N 7 Kerinci

Based on research conducted related to the influence between economic level and physical fitness of SMA N 7 Kerinci students, significant results were obtained by 21.25%, and the rest were influenced by other factors not explained in this study. This shows that the economic level is directly / significantly influenced by the economic status or economic level of the student's parents. Food and nutrition are factors that affect a person's physical fitness. Among people who have a medium or low economic level, it is difficult to meet the needs of balanced nutrition. By consuming sober food, sometimes it is not in accordance with the energy and energy expended. This affects students in maximizing their growth and physical development.

4. There is a significant indirect influence of Study Habits on Physical Fitness through the Economic Level at SMA N 7 Kerinci

Based on research conducted regarding the indirect influence between study habits and physical fitness through the economic level of SMA N 7 Kerinci students, it was found that H_a was rejected. That is, there is no indirect influence between study habits on physical fitness through the economic level. It is not uncommon to find outstanding students from families with medium or even low economic levels, have high enthusiasm for learning and good grades (Simatupang, 2019). Learning habits do not always have to be related to balanced nutritional needs. Although actually, nutritional intake that is fulfilled will greatly help brain performance in learning and physical activity (Mahardika et al., 2022). The more fulfilled a person's nutrition, the body will also be able to work more optimally.

5. There is a significant indirect influence of Nutritional Status on Physical Fitness through the Economic Level of SMA N 7 Kerinci students

Based on research conducted regarding the indirect influence between study habits and physical fitness through the economic level of SMA N 7 Kerinci students, it was found that H_a was rejected. There is no indirect influence between nutritional status and physical fitness through economic levels. This is in line with the previous hypothesis that there is a direct influence between nutritional status and economic level on a person's physical fitness. Balanced nutrition requires considerable costs (Maflahah, 2019). Families of students who have low economies are unable to meet balanced nutrition every day (Haholongan et al., 2021). But on the contrary, a person's ability to improve their nutritional status through economic ability will directly affect the physical fitness of students (Prabowo et al., 2022). The nutritional adequacy factor is an important point in improving one's physical fitness.

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6. There is a significant influence of study habits, nutritional status and economic level on the physical fitness of students of SMA N 7 Kerinci

Based on the data obtained in this study, it shows that H_a is accepted. This means that it is proven that there is an influence on study habits, nutritional status and economic level together with physical fitness. The students' good physical fitness, is also obtained from good physical education learning in school. Good physical fitness cannot be obtained instantly, but requires consistency and high enthusiasm for learning/training. Nutrition is one of the important factors that determine the level of health and compatibility between physical development and mental development. Normal nutritional state levels are reached when optimal nutritional needs are met (Henjilito, 2017). The better the productivity of his work. If the nutritional status of workers is less or poor, it will directly affect their work productivity, and can result in decreased work endurance.

Dwi Jayanti & Elsa Novananda, (2019) Adolescent nutritional adequacy can regulate the body's metabolism, maintain, and support the body's mechanism system. Appropriate nutritional intake becomes energy to carry out various physical activities so that it can be used to form, improve, and maintain physical fitness. According to (Putro & Winarno, 2022).

IV. CONCLUSION

Based on this study, several things can be concluded as follows: 1. There is a direct influence of study habits on physical fitness, 9.98%. 2. There is a direct influence of nutritional status on physical fitness, 9.93 % 3. There is a direct influence of the economic level on physical fitness, 21.25%. 4. There is no indirect influence of study habits on physical fitness through the economic level. 5. There is no indirect influence of nutritional status on physical fitness through the economic level. 6. There is an influence of study habits, nutritional status and economic level, together with physical fitness.

REFERENCES

- 1) Alif, M. N., & Sudirjo, E. (2019). Filsafat Pendidikan Jasmani. Muhammad Nur Alif.
- 2) Amin, f. (2019). Hubungan antara karakteristik pekerja, status gizi dan kebiasaan sarapan dengan produktivitas kerja pada pengrajin batu bata desa bontobiraeng kabupaten gowa.
- 3) Andriani, K. (2022). Teaching Media in Efl Classrooms: What Are They and Why Select Them? *Journal of Language Testing and Assessment*, 2(1), 87–97.
- 4) Anggraeni, n M. I. D. (2022). Hubungan antara status gizi dengan kebugaran jasmani siswa sdn 1 mulyosari kecamatan pasir sakti kabupaten lampung timur.
- 5) Cunningham, K., Ruel, M., Ferguson, E., & Uauy, R. (2015). Women's empowerment and child nutritional status in South Asia: a synthesis of the literature. *Maternal & Child Nutrition*, 11(1), 1–19.
- 6) Darmawan, I. (2017). Upaya meningkatkan kebugaran jasmani siswa melalui penjas. *Jurnal Inspirasi Pendidikan*, 7(2), 143–154. <https://doi.org/10.21067/jip.v7i2.1700>
- 7) Dwi Jayanti, Y., & Elsa Novananda, N. (2019). Hubungan Pengetahuan Tentang Gizi Seimbang Dengan Status Gizi Pada Remaja Putri Kelas Xi Akuntansi 2 (Di Smk PGRI 2 Kota Kediri). *Jurnal Kebidanan*, 6(2), 100–108. <https://doi.org/10.35890/jkdh.v6i2.38>
- 8) Eggoh, J., Houeninvo, H., & Sossou, G.-A. (2015). Education, health and economic growth in African countries. *Journal of Economic Development*, 40(1), 93. <https://doi.org/10.1017/S0007114520002688>
- 9) Haholongan, R., Prastiwi, N. D., Ramadhina, S. R., & Andrea, Z. (2021). Penyuluhan Faktor Pendapatan Keluarga Dengan Gizi Seimbang di Masa Pandemi COVID-19 Pada Remaja SMPN 188 Jakarta. *PROGRESIF: Jurnal Pengabdian Komunitas Pendidikan*, 1(2), 71–77. <https://doi.org/10.36406/progresif.v1i2.439>
- 10) Henjilito, R. (2017). Pengaruh Daya Ledak Otot Tungkai, Kecepatan Reaksi dan Motivasi terhadap Kecepatan Lari Jarak Pendek 100 Meter pada Atlet PPLP Provinsi Riau. *Journal Sport Area*, 2(1), 70–78.
- 11) Jatnika, T. S. (2022). Konsep Pengembangan Sumber Daya Manusia (E. S. D. Manusia (trans.); p. 61).
- 12) Joni, A., Ihsan, N., Zulfahri, Z., & Putra, A. N. (2023). Pelaksanaan Pembelajaran Pendidikan Jasmani Olahraga dan Kesehatan di Sekolah Dasar Negeri 15 Ampalu Kecamatan Pariaman. *Jurnal JPDO*, 6(1), 92–96.
- 13) Kadir, A., & Asrohah, H. (2015). Pembelajaran tematik.
- 14) Legianto, L., Damrah, D., Syahrastani, S., & Darni, D. (2022). Kebiasaan Belajar Siswa dalam Mata Pelajaran Pendidikan Jasmani. Olahraga Dan Kesehatan. *Jurnal JPDO*, 5(6), 67–73.
- 15) Mafalah, I. (2019). Analisis Status Gizi Balita di Kabupaten Sumenep Madura. *Jurnal Pamat: Jurnal Ilmiah Universitas Trunojoyo*, 12(1), 35–47.
- 16) Mahardika, I. K., Nazarina, A. D., Rahma, F. A., Mukarromah, S., Yusmar, F., & Fadila, R. E. (2022). Analisis Pemenuhan

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Gizi Terhadap Perkembangan Otak Anak Pada Usia Sekolah. *Jurnal Ilmiah Wahana Pendidikan*, 8(23), 477–482.
<https://doi.org/10.5281/zenodo.7421570>

- 17) Mustafa, P. S., & Dwiyo, W. D. (2020). Kurikulum pendidikan jasmani, olahraga, dan kesehatan di Indonesia abad 21. *Jurnal Riset Teknologi Dan Inovasi Pendidikan (JARTIKA)*, 3(2), 422–438.
- 18) Ogundari, K., & Awokuse, T. (2018). Human capital contribution to economic growth in Sub-Saharan Africa: does health status matter more than education? *Economic Analysis and Policy*, 58, 131–140.
<https://doi.org/10.1016/j.eap.2018.02.001>
- 19) Pagliai, G., Dinu, M., Madarena, M. P., Bonaccio, M., Iacoviello, L., & Sofi, F. (2021). Consumption of ultra-processed foods and health status: a systematic review and meta-analysis. *British Journal of Nutrition*, 125(3), 308–318.
- 20) Prabowo, A., Raibowo, S., Nopiyo, Y. E., & Ilahi, B. R. (2022). Pengaruh Hemoglobin dan Motivasi terhadap Kebugaran Jasmani Siswa SMK 5 Kota Bengkulu. *Jurnal Pendidikan Kesehatan Rekreasi*, 8(1), 212–222.
- 21) Putro, B., & Winarno, M. (2022). Analisis aktivitas fisik dan status gizi terhadap kebugaran jasmani junior high school: Literature review. *Sport Science and Health*, 4(1), 1–11. <https://doi.org/10.17977/um062v4i12022p1-11>
- 22) Rahayu, n K. (2019). & maksum, a. Hubungan tingkat pendidikan dan status ekonomi orangtua terhadap aktivitas fisik siswa.
- 23) Rhodes, R. E., Janssen, I., Bredin, S. S. D., Warburton, D. E. R., & Bauman, A. (2017). Physical activity: Health impact, prevalence, correlates and interventions. *Psychology & Health*, 32(8), 942–975.
<https://doi.org/10.1080/08870446.2017.1325486>
- 24) Riduwan, E. A. K. (2010). Cara Menggunakan dan Menggunakan Path Analysis.
- 25) rosita, r, Widowati, R., & Kurniati, D. (2020). perkembangan motorik kasar pada anak 12-24 bulan di posyandu desa ciasem baru kecamatan ciasem kabupaten subang provinsi jawa barat. *Syntax*, 2(8).
- 26) Ruíz-Roso, M. B., de Carvalho Padilha, P., Matilla-Escalante, D. C., Brun, P., Ulloa, N., Acevedo-Correa, D., Arantes Ferreira Peres, W., Martorell, M., Rangel Bousquet Carrilho, T., & de Oliveira Cardoso, L. (2020). Changes of physical activity and ultra-processed food consumption in adolescents from different countries during Covid-19 pandemic: an observational study. *Nutrients*, 12(8), 2289. <https://doi.org/10.3390/nu12082289>
- 27) Sepriadi, S. (2017). Pengaruh Motivasi Berolahraga Dan Status Gizi Terhadap Tingkat Kebugaran Jasmani. *Jurnal Penjakora*, 4(1), 77–89. <https://doi.org/10.23887/penjakora.v4i1.11755>
- 28) Simatupang, r. (2019). Studi komparatif motivasi belajar berdasarkan tingkat perekonomian keluarga siswa kelas vii smp negeri 1 pangaribuan, kecamatan pangaribuan, kab. Taput tahun pembelajaran 2017/2018. *Jurnal Christian Humaniora*, 3(1), 55–61.
- 29) Sin, T. H., & Hudayani, F. (2020). Studi motivasi siswa dalam mengikuti pembelajaran pendidikan jasmani olahraga kesehatan. *SCHOULID Indones. J. Sch. Couns.*
- 30) Ukpong, D. E., & George, I. N. (2013). Length of Study-Time Behaviour and Academic Achievement of Social Studies Education Students in the University of Uyo. *International Education Studies*, 6(3), 172–178.



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