

Physical fitness, motor ability, motivation and physical literacy knowledge of primary school students in Pontianak city, Indonesia

Aptitud física, capacidad motora, motivación y conocimientos de alfabetización física de los alumnos de primaria de la ciudad de Pontianak, Indonesia

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Abstract. This research aims to analyze the level of physical fitness, motor skills, level of motivation and physical literacy knowledge of elementary school students in Pontianak City. The population in this study were elementary school students in the city of Pontianak. This type of research is purposive sampling, so the sample is 273 people. After the data is obtained, the research data analysis technique uses frequency tabulation. The results of this research show: The level of physical fitness among elementary school students in the city of Pontianak who used the pacer test using the latest adaptation of the Indonesian student fitness test. The results showed that the level of physical fitness among elementary school students in the city of Pontianak was 62 students (43.35%) were declared to have a good fitness level, 47 female students (36.15%) were declared to have a good fitness level. The level of motor skills in elementary school students in the city of Pontianak, namely 62 students (43.35%) were declared to have a good level of motor skills, while the research results for the female sample were 54 female students (41.53%) were declared to have a good level of motor skills. Moderate motor skills. Regarding motivation, the results were motivation in elementary school students in the city of Pontianak, namely 71 students (49.65%) were declared to have achieved levels of motivation, while the research results for the female sample were 56 female students (43.07%) stated have a level of progressing motivation. Regarding physical literacy knowledge, the physical literacy abilities of elementary school students in Pontianak City, namely 71 students (49.65%) were declared to have achieved levels of physical literacy abilities, while the research results for the female sample were 49 female students (37.69%) were declared to have a level of achievement motivation.

Keywords: Circuit, Plank, Bodyweight Training, Archery Sports

Resumen. Esta investigación tiene como objetivo analizar el nivel de aptitud física, las habilidades motoras, el nivel de motivación y el conocimiento de alfabetización física de los estudiantes de primaria en la ciudad de Pontianak. La población de este estudio fueron estudiantes de primaria en la ciudad de Pontianak. Este tipo de investigación es un muestreo intencional, por lo que la muestra es de 273 personas. Una vez obtenidos los datos, la técnica de análisis de datos de la investigación utiliza la tabulación de frecuencias. Los resultados de esta investigación muestran: El nivel de aptitud física entre los estudiantes de primaria en la ciudad de Pontianak que utilizaron la prueba pacer utilizando la última adaptación de la prueba de aptitud física para estudiantes de Indonesia. Los resultados mostraron que el nivel de aptitud física entre los estudiantes de primaria en la ciudad de Pontianak fue de 62 estudiantes (43,35%) que declararon tener un buen nivel de aptitud física, 47 estudiantes mujeres (36,15%) fueron declaradas tener un buen nivel de aptitud física. El nivel de habilidades motoras en los estudiantes de la escuela primaria en la ciudad de Pontianak, es decir, 62 estudiantes (43,35%) fueron declarados con un buen nivel de habilidades motoras, mientras que los resultados de la investigación para la muestra femenina fueron 54 estudiantes mujeres (41,53%) fueron declaradas con un buen nivel de habilidades motoras. Habilidades motoras moderadas. En cuanto a la motivación, los resultados fueron motivación en los estudiantes de la escuela primaria en la ciudad de Pontianak, es decir, 71 estudiantes (49,65%) fueron declarados con niveles de motivación, mientras que los resultados de la investigación para la muestra femenina fueron 56 estudiantes mujeres (43,07%) declararon tener un nivel de motivación progresiva. En cuanto al conocimiento de alfabetización física, las habilidades de alfabetización física de los estudiantes de la escuela primaria en la ciudad de Pontianak, es decir, 71 estudiantes (49,65%) fueron declarados con niveles de habilidades de alfabetización física, mientras que los resultados de la investigación para la muestra femenina fueron 49 estudiantes mujeres (37,69%) fueron declaradas con un nivel de motivación de logro.

Palabras clave: Circuito, plancha, entrenamiento con peso corporal, deportes de tiro con arco

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Introduction

Physical fitness or what is often referred to as physical freshness means the body's ability and ability to adapt to the physical load given without causing excessive fatigue. There are several components of physical fitness, both related to health and related to skills (Wang et al., 2022; Adji et al., 2022; Widodo et al., 2024). Literally the meaning of physical fitness is physical fitness or physical suitability. Thus, in general, it can be said that physical fitness is the suitability of the physical condition for the tasks that must be carried

out by the physical individual. Physical fitness is relative both anatomically and physiologically, meaning that whether a person is fit or not is always in relation to the physical tasks being carried out. A strong desire to engage in physical activity is one trait that distinguishes someone as physically literate (Chen, 2015; Amran et al., 2023; Yudanto et al., 2024). Thus, it can be interpreted that physical fitness is a state of physical ability that can adapt the function of the body's organs to certain physical tasks and/or to environmental conditions that must be overcome in an efficient manner, without excessive fatigue and has

fully recovered before the same task comes. the next day (Smith et al., 2023; Arifin et al., 2024; Yudhistira et al., 2021).

On the other hand, physical motor development is also defined as the development of elements of maturity and control of body movements (Yuniana et al., 2023). Physical development has a very important role in children's lives, both directly and indirectly. Directly, a child's physical development will determine the child's movement skills. While indirectly, physical growth and development will influence the child's view of himself and the child's view of others, physical development goes hand in hand with motor development. Disturbances in physical motor development at elementary school age children become obstacles in their activities, including, children will have difficulty playing, writing, erasing the blackboard and so on.

Literacy is not just the ability to read and write but increases knowledge, skills and abilities which can make someone have the ability to think critically, be able to solve problems in various contexts, be able to communicate effectively and be able to develop potential and participate actively in social life. Based on the opinion above, it can be understood that the meaning of literacy is not just a person's ability to read and write, but has evolved according to the times. Moreover, the word literacy now has a broader and more complex meaning. Physical literacy is a fundamental and valuable human ability that can be described as an acquired disposition of human individuals that includes motivation, self-confidence, physical competence, knowledge and understanding that establishes purposeful physical goals as an integral part of their lifestyle (Hughes, 2019; Auliana et al., 2024). Despite that, this resolution was approved. In general, it is not unusual for academics and professionals to use methods that differ greatly in how Physical Literacy is measured and discussed (Edwards et al., 2017; Hyndman & Pill, 2018; Dong et al., 2024).

In general, in elementary schools (SD), both in the classroom and outside the classroom during recess, many children are seen jumping rope, playing ball, some are chasing each other and some children are playing role-playing games. This activity must be maintained, considering that the world of elementary school (SD) children is still in the play phase. This can create a generation that is active, communicative, diligent and healthy and fit. As is known, physical activity is an important part of human life and does not depend on age. Physical activity can be done by doing sports because it has been proven to make the body healthy. The main physical activity is exercise which will improve blood circulation which is useful for heart health and can improve concentration (Lopez et al., 2022; Hardianto et al., 2022). Systematically, through sports, play and physical activities students can be directly involved in various learning experiences, this is what makes physical education very important.

However, in reality there are still many students who do not know what physical literacy is. This is caused by a

lack of insight or knowledge about physical literacy, that physical literacy is an activity they carry out in their daily activities. As a result, each physical-motor proposal needs to be connected by noting our feelings and thinking back on those experiences (Águila Soto & José López Vargas, 2019; Hastuti et al., 2021). There are several opinions from PJOK teachers or class teachers regarding physical literacy where the researchers concluded that the explanation that has been outlined is still not perfect, as well as the emergence of perceptions of doubt from some teachers regarding physical literacy. From the explanation above, physical literacy can be said to be very beneficial for the lives of students, especially. Because by understanding the meaning of physical literacy, students will be more productive, and they will have useful activities that can change their lives every day.

This research aims to analyze the level of physical fitness, motor skills, level of motivation and physical literacy knowledge of elementary school (SD) students in the city of Pontianak.

Materials and methods

This type of research is descriptive with the aim of describing a situation in the research to be carried out. This research was conducted in elementary schools in Pontianak City. This research was carried out from January to November 2023.

Participants

The sample in this research was 273 people. The data that will be processed in this research is data on the level of physical fitness of elementary school level students in the city of Pontianak, which is divided into 11 elementary schools representing 5 sub-districts in Pontianak City, namely West Pontianak, East Pontianak, South Pontianak, North Pontianak and Pontianak City. Physical fitness test data uses a pacer test instrument adapted by the Indonesian student fitness test.

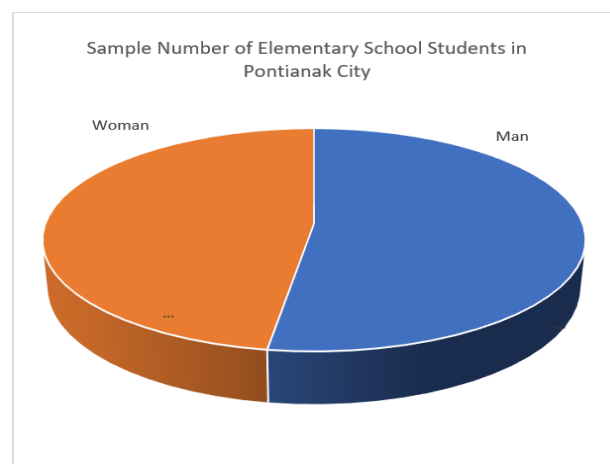


Figure 1. Number of Student Samples in elementary schools throughout Pontianak City

The percentage description of the sample size of elementary school students is 173 students, divided into 48% female and 52% male. The schools taken were SD Negeri 24 Southeast Pontianak, SD Negeri 28 South Pontianak, SD Negeri 34 Pontianak City, SD Negeri 39 North Pontianak, SD Negeri 32 Pontianak, SD Negeri 23 West Pontianak, SD Negeri 14 East Pontianak, SD Negeri 24 Pontianak City, SD Negeri 68 West Pontianak, and SD Negeri South Pontianak. Data taken from each school includes the variables physical fitness, motor skills, motivation and physical literacy knowledge of students.

Instruments

Each variable in this study was tailored for use with the instruments employed. The instrumentation in this research was: 1) Indonesian Student Fitness Test 2022. 2) Physical Literacy test, 3) Test of gross motor development 2. The data findings will be described by this tool based on the variables you are interested in learning about. The following are the variables in this study: 1) students' physical fitness; 2) motor ability; 3) motivation; and 4) physical literacy.

The purpose of the physical fitness knowledge test is to assess students' knowledge of physical fitness, covering topics such as advantages, forms of exercise, and healthy lifestyle choices. The test is administered in a double-blind format, with scores determined by the quantity of right answers. For instance, a right response receives a score of 1, and a wrong response receives a score of 0.

Students' physical skills and motor skills are measured by motor ability. Balance, coordination, speed, agility, and strength tests are administered. Scores are determined by the amount of time, the quantity of tries, or the performance assessed during the exam.

The goal of motivation is to evaluate students' drive for exercise and overall health. The questions are of the Likert scale variety, with 1 denoting a strong disagreement and 5 denoting a strong agreement. The values on the Likert scale for each question are added up to determine the final score.

The purpose of measuring students' physical literacy knowledge is to evaluate their comprehension of and capacity for using concepts related to physical fitness in daily life. The test consists of short answers and multiple-choice questions. Based on the quantity of right answers, scores are assigned.

Next, the data was presented based on gender and descriptive analysis was performed using SPSS 26.00 for Windows software. The goal of descriptive analysis is to classify every variable. The variables have been classified as follows:

Table 1.

Variable Classification			
Physical Fitness	Motor Ability	Motivation	Physical Literasi
Very well	Very well	Excelling	Excelling
Well	Well	Achieving	Achieving
Enough	Enough	Progressing	Progressing
low	low	Beginning	Beginning
Very Low	Very Low		

Limitations of Research

The findings and interpretation of a study on the physical fitness knowledge, motor skills, motivation, and physical literacy of elementary school students in Pontianak City, Indonesia, may be impacted by a number of limitations. One of the mentioned limitations is that the sample might not be entirely representative of Pontianak City's elementary school student population. The study's findings might not be generalizable if the sampling is not random or representative. Subjectivity in assessment and environmental factors (such as weather and field quality) can affect the practical measurement of motor abilities. Furthermore, it's possible that the study's findings cannot be applied to other populations or to a larger context outside of Pontianak City.

Results

The data gathered for the study is described and summarized using descriptive statistical analysis. Within the framework of studies on the physical literacy, motivation, motor skills, and knowledge of physical fitness among Pontianak City elementary school pupils, descriptive statistical analysis offers a broad overview of the attributes of participants as well as the distribution and patterns of the information. The outcomes of the descriptive statistical analysis performed on each research variable are as follows:

Table 2.

Results of descriptive statistical analysis

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Physical fitness	273	7	109	33.61	17.786
TGMD	273	10	84	28.26	20.492
Motivation	273	24	89	41.03	6.127
Physical Literacy	273	5	16	10.85	2.459
Valid N (listwise)	273				

Physical fitness data for elementary school students in Pontianak City

Physical fitness data for elementary school students in Pontianak City is contained in the following table:

Table 3.

Physical fitness table for elementary school students in Pontianak City

	Classification	Interval	Frequency	Percentage (%)
	Man N = 143 students	Very well	≥ 61	19
Well		50 - 60	62	43,35
Enough		37 - 49	26	18,19
low		24 - 36	20	13,98
Very Low		≤ 23	16	11,19
Woman N = 130 female students	Classification	Interval	Frequency	Percentage (%)
	Very Well	≥ 41	3	2,31
	Well	30 - 40	47	36,15
	Enough	19 - 29	34	26,15
	Low	8 - 18	39	30
	Very Low	≤ 7	5	3,85

Based on the table above, it can be described about the physical fitness level of elementary school students in Pontianak City, namely 19 students (13.29%) were declared to have a very good fitness level, 62 students (43.35%) were declared to have Good fitness level, as many as 26 students (18.19%) were declared to have a sufficient

fitness level, as many as 20 students (13.98%) were declared to have a low fitness level, as many as 16 students (11.19%) were declared to have a very low fitness level. Male students tended to be more physically fit overall, as evidenced by the distribution, which placed the majority of them in the "Well" category.

Meanwhile, the results of the research for the female sample were that 3 female students (2.31%) were declared to have a very good fitness level, 47 female students (36.15%) were declared to have a good fitness level, 34 female students (26.15%) were declared to have sufficient fitness level, as many as 39 female students (30%) were declared to have a low fitness level, as many as 5 female students (3.85%) were declared to have a very low fitness level. Compared to male students, there was a larger variation in the physical fitness levels of female students; the majority of them were in the "Well" category, but there was also a sizable portion in the "Low" category.

The physical fitness level of Pontianak City's elementary school students is clearly depicted in this analysis, which can serve as the foundation for programs and interventions aimed at enhancing physical fitness in classrooms.

Data on motor skills of students at elementary school level in Pontianak City

Data on motor skills of students at elementary school level in Pontianak City is contained in the following table:

Table 4.
Table of motor skills of elementary school students in Pontianak City

	Classification	Interval	Frequency	Percentage (%)
Man N = 143 students	Very well	$X \geq 78$	11	7,69
	Well	66 - 78	62	43,35
	Enough	54 - 66	18	12,58
	low	42 - 54	24	16,78
	Very low	$X < 42$	28	19,58
Woman N = 130 female students	Very well	$X \geq 48$	15	11,53
	well	38 - 48	27	20,76
	Enough	28 - 38	54	41,53
	Low	12 - 28	18	13,84
	Very Low	$X < 12$	16	12,30

Based on the table above, it can be described about the motor skills of elementary school students in Pontianak city, namely 11 students (7.69%) were declared to have a very good level of motor skills, 62 students (43.35%) were declared to have Good Motor Ability level, as many as 18 students (12.58%) were declared to have a moderate level of Motor Ability, as many as 24 students (16.78%) were declared to have a poor level of Motor Ability, as many as 28 students (19.58%) were declared to have a good level of Motor Ability. very poor motor skills. The majority of male students are in the "Well" category in terms of motor skills, but there are also a number of students who are in the "Very Low" category. This demonstrates the wide range of motor skills among male students.

Meanwhile, the results of the research for the female sample were that 15 female students (11.53%) were declared to have a very good level of motor skills, 27 female students (20.76%) were declared to have a good level of

motor skills, and 54 female students (41.53%) were declared to have a good level of motor skills. declared to have a moderate level of Motor Ability, as many as 18 female students (13.84%) were declared to have a low level of Motor Ability, as many as 16 female students (12.30%) were declared to have a very low level of motor ability. The majority of female students were in the "Enough" category, indicating that their motor skills were mostly at a moderate level. Significant amounts can also be found in the "Well" and "Very Low" categories.

This analysis offers a comprehensive picture of Pontianak City elementary school students' motor skill levels, which can serve as the foundation for initiatives aimed at enhancing students' motor skills in the classroom.

Motivation data for elementary school students throughout Pontianak City

Data on the motivation level of students at elementary school level in Pontianak City is contained in the following table:

Table 5.
Table of motivation levels of elementary school students in Pontianak City

	Classification	Interval	Frequency	(%)
Man N = 143 students	Excelling	$>25,3$	35	24,47
	Achieving	23,1 – 25,3	71	49,65
	Progressing	16,3 – 23,0	26	18,18
	Beginning	$< 16,3$	11	7,69
Woman N = 130 female students	Excelling	$>24,8$	15	11,53
	Achieving	22,4 – 24,8	27	20,76
	Progressing	16,2 – 22,3	56	43,07
	Beginning	$< 16,2$	32	24,61

Based on the table above, it can be described about the motivation of elementary school students in the city of Pontianak, namely 35 students (24.47%) were declared to have an excellent level of motivation, 71 students (49.65%) were declared to have an achieving motivation level. , as many as 26 students (18.18%) were stated to have a progressing level of motivation, as many as 11 students (7.69%) were stated to have a beginning level of motivation. When it comes to motivation, most male students fall into the "Achieving" category, meaning that their levels of motivation are generally high. Another noteworthy statistic is the percentage of pupils who fall into the "Excellent" category.

Meanwhile, the results of the research for the female sample were that 15 female students (11.53%) were declared to have an excellent level of motivation, as many as 27 female students (20.76%) were stated to have an achieving level of motivation, as many as 56 female students (43.07%) were stated to have a high level of motivation. progressing motivation, as many as 32 female students (24.61%) were declared to have a beginning level of motivation. The "Progressing" category includes the majority of female students, suggesting that their motivation is primarily at an intermediate level. The percentage of pupils falling into the "Beginning" category is likewise fairly high, suggesting that female students face

difficulties with motivation.

The level of motivation exhibited by Pontianak City elementary school students is clearly depicted in this analysis, and it can serve as a foundation for school-based motivation improvement initiatives.

Physical literacy knowledge data for elementary school students in Pontianak City

Data on physical literacy knowledge of elementary school students in Pontianak City is contained in the following table:

Table 6.
Table of Physical Literacy knowledge of elementary school students in Pontianak City

	Classification	Interval	Frequency	Percentage (%)
Man N = 143 students	Excelling	>72,7	17	11,88
	Achieving	65,4 – 72,7	40	27,97
	Progressing	47,3 – 65,3	57	39,86
	Beginning	< 47,3	29	20,27
Woman N = 130 female students	Excelling	>71,7	16	12,30
	Achieving	64,9 – 71,7	49	37,69
	Progressing	49,6 – 64,8	28	21,53
	Beginning	< 49,6	37	28,46

Based on the table above, it can be described about the physical literacy abilities of elementary school students in the city of Pontianak, namely 17 students (11.88%) were declared to have an excellent level of physical literacy, 71 students (49.65%) were declared to have an excellent level of physical literacy abilities. having an achieving level of physical literacy ability, as many as 26 students (18.18%) were declared to have a progressing level of physical literacy ability, as many as 11 students (7.69%) were declared to have a beginning level of physical literacy ability. When it came to their knowledge of physical literacy, the majority of male students fell into the "Progressing" category, meaning that their proficiency was primarily intermediate. A sizeable portion falls into the "Beginning" category as well.

Meanwhile, the results of the research for the female sample were that 16 female students (12.30%) were declared to have an excellent level of motivation, 49 female students (37.69%) were stated to have an achieving level of motivation, as many as 28 female students (21.53%) were stated to have a high level of motivation. progressing motivation, as many as 37 female students (28.46%) were declared to have a beginning level of motivation. The majority of female students fell into the "Achieving" category, meaning that they primarily had good knowledge of physical literacy. Still, a considerable portion of students fall into the "Beginning" category.

Programs to improve physical literacy in schools can be built upon the clear picture of the physical literacy knowledge of Pontianak City's elementary school students provided by this analysis.

Discussion

Based on the description of the data above or a survey of physical fitness levels among elementary school students in the city of Pontianak who used the pacer test using the latest adaptation of the Indonesian student fitness test, the results showed that the level of physical fitness among elementary school students in the city of Pontianak was 19 students (13.29%) were declared to have a very good level of fitness, as many as 62 students (43.35%) were declared to have a good level of fitness, as many as 26 students (18.19%) were declared to have a fair level of fitness, as many as 20 students (13.98%) were declared to have a low fitness level, as many as 16 students (11.19%) were declared to have a very low fitness level.

Meanwhile, the results of the research for the female sample were that 3 female students (2.31%) were declared to have a very good fitness level, 47 female students (36.15%) were declared to have a good fitness level, 34 female students (26.15%) were declared to have sufficient fitness level, as many as 39 female students (30%) were declared to have a low fitness level, as many as 5 female students (3.85%) were declared to have a very low fitness level.

Regarding motor skills in elementary school students in the city of Pontianak, 11 students (7.69%) were declared to have a very good level of motor skills, 62 students (43.35%) were declared to have a good level of motor skills, as many as 18 students (12.58%) were declared to have a moderate level of Motor Ability, as many as 24 students (16.78%) were declared to have a low level of Motor Ability, as many as 28 students (19.58%) were declared to have a very low level of motor ability.

Meanwhile, the results of the research for the female sample were that 15 female students (11.53%) were declared to have a very good level of motor skills, 27 female students (20.76%) were declared to have a good level of motor skills, and 54 female students (41.53%) were declared to have a good level of motor skills. declared to have a moderate level of Motor Ability, as many as 18 female students (13.84%) were declared to have a low level of Motor Ability, as many as 16 female students (12.30%) were declared to have a very low level of motor ability.

Regarding Motivation, the results were Motivation among elementary school students in Pontianak City, namely 35 students (24.47%) were declared to have an excellent level of motivation, as many as 71 students (49.65%) were declared to have an achieving level of motivation, as many as 26 students (18.18%) were declared to have a progressing level of motivation, while 11 students (7.69%) were declared to have a beginning level of motivation.

Meanwhile, the results of the research for the female sample were that 15 female students (11.53%) were stated to have an excellent level of motivation, 27 female students (20.76%) were stated to have an achieving level of motivation, as many as 32 female students (24.61%) were stated to have an achieving level of motivation. have a beginning level of motivation.

Regarding physical literacy knowledge, the physical literacy ability of elementary school students in Pontianak City, namely 17 students (11.88%) were declared to have an excellent level of physical literacy ability, as many as 71 students (49.65%) were declared to have level of physical literacy ability achieved, as many as 26 students (18.18%) were declared to have a progressing level of physical literacy ability, as many as 11 students (7.69%) were declared to have a beginning level of physical literacy ability.

Meanwhile, the results of the research for the female sample were that 16 female students (12.30%) were declared to have an excellent level of motivation, 49 female students (37.69%) were stated to have an achieving level of motivation, as many as 28 female students (21.53%) were stated to have a high level of motivation. progressing motivation, as many as 37 female students (28.46%) were declared to have a beginning level of motivation.

Based on the analysis above, it shows differences in the level of physical fitness of students in the city of Pontianak. The level of physical fitness is basically very important to support all the activities that students carry out on a daily basis. Through fitness and a high level of physical fitness, it can provide benefits for students to be able to participate in daily activities optimally (Busser & Carruthers, 2010; Jufriani et al., 2021).

Physical fitness is one of the main assets that humans must have, because by having a good level of physical fitness it will be easier for humans to carry out their activities or work, on the other hand, with a low level of physical fitness, humans will have difficulty carrying out all daily activities because Physical fitness has a very important role in human life (Varea & González-Calvo, 2020; Ilham et al., 2021).

Based on the results of the presentation of the Sport Development Index data in Indonesia, it shows that people in Indonesia are still classified as underprivileged. In summary, the results show the fitness condition of our society: 1.08% is in the very good category; 4.07% good; 13.55% moderate; 43.90% less; and 37.40% very less (van den Bergh et al., 2023). In other words, Indonesian people still do not have an optimal fitness index.

The elementary school level is the foundation for the Indonesian nation to provide optimization of a good and optimal level of physical fitness in the long term. This is done through physical education learning at the lower class level to provide learning and awareness that physical sports activities provide great benefits for their lives. Apart from that, it is implemented through learning activities that include improving their physical condition in the form of more varied and enjoyable fitness so that indirectly Children whose nature is to imitate parents or teachers can carry out physical activities independently and in a structured manner. Therefore, improving physical fitness is not only done through formal activities at school but also done independently.

Physical fitness is a person's ability to carry out activities for a long time without experiencing significant fatigue

(Lemoyne et al., 2019; Listyarini et al., 2021). A person who has a good degree of physical fitness will be able to carry out an activity or a job even after doing heavy work before. because you still have energy reserves to carry out activities. On the other hand, healthy people do not necessarily have good physical fitness and cannot necessarily do work or exercise that is quite heavy and long (Kerr, 2014; Nasrulloh et al., 2022).

Physical learning exists to provide a paradigm for students to carry out activities that include increasing physical fitness, such as carrying out sports activities that are carried out on a daily basis (Forbes et al., 2023; Kauki et al., 2024). These activities can be carried out in the form of designing fun learning and learning that is has an impact on improving students' fitness such as walking, running and jumping through obstacles (Mills & Denison, 2013; Kogoya et al., 2023). This suggests that at every educational level, programs and structures aimed at enhancing students' physical fitness are necessary (Donnelly et al., 2016; Reyes-Amigo et al., 2021; Trajković et al., 2020; Kristiyanto et al., 2020).

Factors that influence physical fitness are: age, gender, somatotype, or body shape, health condition, nutrition, body weight, sleep or rest, and physical activity (Haugen et al., 2023).

1. Age

Cardiorespiratory endurance will decrease with age, but this decline can be reduced if a person exercises regularly from an early age. Fitness increases until it reaches a maximum at the age of 25-30 years, then there will be a decrease in the functional capacity of the entire body, approximately 0.8-1% per year, but if you exercise diligently this decrease can be reduced by half.

2. Gender

Each gender has different advantages. By law, women have the potential for a higher level of physical fitness than men. Under normal circumstances they are able to withstand much greater temperature changes. Men tend to have potential in physical fitness, in the sense that their potential for power and speed is higher.

3. Somatotype, or body shape,

Good physical fitness can be achieved with any body shape according to its potential.

4. State of health,

Physical fitness cannot be maintained if the body is not in good health or is sick.

5. Nutrition,

Food is very necessary if you want to achieve and maintain physical fitness and body health. A balanced diet (12% protein, 50% carbohydrates, 38% fat) will fulfill the body's nutritional needs.

6. Body weight,

Having an ideal body weight whether over or under will be able to do work easily and efficiently.

7. Sleep or rest, and

The body needs rest to rebuild muscles after exercise as

much as exercise needs to stimulate muscle growth. Adequate rest is necessary for the body and mind with food and air.

8. Physical activities.

Physical or physical activities carried out in accordance with the correct training principles, training dosages and training methods will produce good results. Physical activity prevents the emergence of symptoms of atrophy because the body is not given activity. Atrophy is defined as the loss or reduction of muscle shape due to the destruction of muscle fibers. Basically, it can occur both physiologically and pathologically. Physiologically, muscle atrophy occurs in muscles in limbs that have not been used for a long time, such as when the limb is wrapped in a cast.

Involvement of physical education subjects to optimize physical fitness, motor skills, motivation to carry out sports activities and physical literacy. It is very important, this formation begins with how the learning process that takes place can provide a greater portion of meaning to form students' understanding that sports activities are easy, fun, and have greater benefits for their survival (Bailey & Hennessy, 2020; Nasrulloh et al., 2021). Being active in sports activities can provide a large portion of a healthy and fit life for a long period of time (Mills & Denison, 2013; Whitehead, 2010; Nasrulloh et al., 2020).

Based on the opinion expressed by (Wilmore, 2003) states that the goals of physical activity in the form of sports carried out by students include increasing physical fitness, motivation, motor skills and improving students' emotions. Increased physical fitness is obtained after students carry out structured activities contained in physical education learning at school and activities outside of learning (Hansen et al., 2023; Young et al., 2021; Nopembri et al., 2022). Emotional improvement is the most important thing, this is because through emotional Regularly, it can provide meaning for mutual understanding between friends if the sport is carried out as a team and emotionally individually, both marked by emotional ties between students and teachers and vice versa (Young et al., 2020; Nugroho et al., 2022). The degree of student participation in physical activities can be influenced by a number of factors, including the educational curriculum, time, sports lessons, support from teachers, and the school environment (Carl et al., 2022; Cornish et al., 2020; Dudley & Cairney, 2021; Nugroho et al., 2021)..

Improving physical fitness can be done through structured and unstructured activities, structured activities can be implemented through planned and continuous sports activities carried out through established training rules (Quennerstedt et al., 2020; Pratama et al., 2022), while unstructured are sports activities that have the benefits of increasing students' physical fitness through their daily activities (Whitehead, 2010; Pratama et al., 2024). These activities are carried out in a fun way so that indirectly students do not feel burdened because indirectly these activities have benefits for them, both increasing physical fitness, motor skills and motivation to continue exercising (Busser

& Carruthers, 2010; Riyana et al., 2023).

According to (Mannozi et al., 2023; Saifu et al., 2021) there are three meaningful aspects that can describe a person's level of physical activity, namely work, sports and leisure activities. The amount of physical activity varies from person to person depending on the individual's lifestyle and other factors. Regular physical activity can reduce the risk of diseases such as cardiovascular disease (CDV), stroke, diabetes mellitus and cancer (Chan, Kinsman, & Chan, 2023; Salafi et al., 2022). Apart from that, it also has a positive effect on diseases such as breast cancer, hypertension, osteoporosis and risk of falls, overweight, musculoskeletal conditions, mental and psychological disorders and controlling behavior as smoking, alcohol, and can also increase productivity at work (Wong et al., 2023; Salafi et al., 2023).

Physical activity basically has a big role in creating great and physically healthy human resources, this is through optimal physical activity. Optimal physical activity can provide benefits including (1) increasing the ability to use oxygen and cardiac output, (2) reducing heart rate, reducing blood pressure, increasing the efficiency of heart muscle work, (3) preventing mortality due to heart problems, (4) increasing endurance when doing physical exercise, (5) improving the body (related to body nutrition), (6) increasing muscle capacity, and (7) preventing obesity (Heidari et al., 2022; Shahril et al., 2024).

Physical activity is expected to become a culture in Indonesia, this was conveyed by Soekarno that sport actually has the meaning of making sport popular and exercising society (Portela-Pino et al., 2023; Sonjaya et al., 2024). This meaning has a deep meaning for sustainability of sports in Indonesia, popularizing sports means that sports, which are a series of physical activities carried out consciously and regularly, can be socialized to the wider community throughout Indonesia, both how to carry out sports activities correctly and the rules for these activities (Wu et al., 2022; Sukendro et al., 2021) At this time of course the newest sports are emerging, therefore to provide colour to achieve achievements in these sports or at least introduce sports to the community with the aim of making people actively participate in these sports activities (Serper et al., 2023; Sutapa et al., 2020).

Sporting the community is a domino effect of socializing sports activities, after the public knows about sports in general, including the facilities, procedures and rules for carrying out these activities. The community is expected to be able to actively participate in sports activities and make sports a necessity (Ghazanachai et al., 2023; Sutapa et al., 2021) therefore the Indonesian public health index can increase so that people have a work ethic and are not easily falling ill can be caused by sports activities (Shakeel et al., 2023; Sutapa et al., 2024). Physical education has a big role in creating people who have a healthy lifestyle, this is contained in the statement conveyed by (Mohammadi et al., 2016; Trisnadi et al., 2023) the orientation of physical education is towards a healthy lifestyle, the potential for developing social interactions and characterful experiences

makes him well suited to acquiring key competencies. The competencies most frequently included in physical education programs studied here are social and citizenship skills, independence and personal initiative, learning to learn, and knowledge of and interaction with the physical world.

sport is a school for life (van den Bergh et al., 2023) A number of cooperative skills and values such as cooperation, communication, obeying rules, solving problems, leadership, and respect for others are the foundation for the overall development of players. Youth can learn through play activities, physical education and sports. When a group of people play soccer, for example, they don't just dribble and dribble the ball. In essence, they learn cooperation, overcome obstacles, solve problems, and achieve goals (Gilic et al., 2023; Trisnadi et al., 2024).

The role of physical education, sports and health in efforts to develop children's social development. These include: (1) Instilling guidance towards recognition and acceptance of the norms and regulations that apply in society (Posawang & Vatcharavongvan, 2023) (2) Instilling the habit of always playing an active role in a group, so that they can work together and accept leadership. and providing leadership (Strahl et al., 2023; Utami et al., 2023) (3) Fostering and nurturing towards the development of social feelings, recognition of others (Marchant et al., 2011) (4) Instilling and nurturing to always learn to be responsible, and willing to provide aid and assistance, as well as providing protection and willing to make sacrifices. (5) Forms of activity, both in studying, working and in filling free time (Zhang et al., 2023; Utami et al., 2024).

Numerous insightful findings can be gained from the study on the physical literacy, motor skills, motivation, and knowledge of physical fitness among elementary school students in Pontianak City, Indonesia. However, more recommendations can be taken into consideration for upcoming studies in order to enhance and broaden knowledge in this field. To monitor changes and advancements in physical literacy, motor skills, motivation, and physical fitness over time, conduct longitudinal studies. This will give insight into the factors that are continuously influencing this development. extending studies by taking socioeconomic and demographic factors like family history, financial standing, and availability of sports facilities into account. This will make it easier to comprehend how these elements affect the findings of the research.

Conclusions

This research aims to analyze the level of physical fitness, motor skills, level of motivation and physical literacy knowledge of elementary school students in Pontianak City. Humans need good physical fitness. By having good physical fitness, humans will find it easier to carry out activities in daily activities. We cannot deny that the sporting activities we do will provide invaluable benefits, namely physical fitness as one of the most important aspects of health. The emergence of awareness of the importance of

sports activities in everyday life is a very encouraging thing. This is closely related to the implementation of the objectives of the activity itself, namely for physical education to improve fitness. There are several variables to improve a person's physical fitness, especially students, including motor skills, students' motivation to carry out physical activities and how this combination becomes a unity. physical literacy knowledge of elementary school students. Therefore, to get maximum results related to improving the quality of life, research needs to be conducted to see the level of physical fitness, motor skills, motivation and physical literacy knowledge of elementary school students in Pontianak City.

The level of physical fitness among elementary school students in the city of Pontianak who used the pacer test using an adaptation of the latest Indonesian student fitness test showed that the level of physical fitness among elementary school students in the city of Pontianak was 62 students (43.35%) declared to have a good fitness level, as many as 47 female students (36.15%) were declared to have a good fitness level. The level of motor skills in elementary school students in the city of Pontianak, namely 62 students (43.35%) were declared to have a good level of motor skills, while the research results for the female sample were 54 female students (41.53%) were declared to have a good level of motor skills. Moderate motor skills.

Regarding motivation, the results were motivation in elementary school students in the city of Pontianak, namely 71 students (49.65%) were declared to have achieved levels of motivation, while the research results for the female sample were 56 female students (43.07%) stated have a level of progressing motivation.

Regarding physical literacy knowledge, the physical literacy abilities of elementary school students in Pontianak City, namely 71 students (49.65%) were declared to have achieved levels of physical literacy abilities, while the research results for the female sample were 49 female students (37.69%) were declared to have a level of achievement motivation.

Important findings from studies on the physical literacy, motivation, motor skills, and knowledge of physical fitness among Pontianak City elementary school students can be applied in both theoretical and practical contexts. Practically speaking, the findings of this study support the creation of more thorough and all-encompassing physical education curricula. Theoretically, this study contributes to the body of knowledge by offering empirical proof in favor of comprehensive learning models and practical motivation techniques in physical education. It is intended that by implementing these findings, we will be able to enhance both the general health and wellbeing of students as well as the quality of physical education.

Conflict of interest

We know of no conflict of interest associated with this publication, and there has been no significant financial

support for this work that could have influenced its outcome. As the corresponding author, I confirm that the manuscript has been read and approved for submission by all the named authors.

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