The Relationship between Infrastructure, Learning Media, and Learning Motivation, and Physical Education Learning Outcomes at Junior High Schools in Purbalingga Regency

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ABSTRACT: This study aims to determine the relationship between infrastructure, learning media, and learning motivation, and physical education learning outcomes at junior high schools in Purbalingga Regency. This descriptive quantitative correlational research was conducted at several junior high schools in Purbalingga Regency in January 2023. The sampling technique was the total sampling used to collect 55 schools in Purbalingga Regency. The data were collected by spreading questionnaires to Physical Education teachers, and the process was started by finding the data on Physical Education teachers at junior high schools in Purbalingga. Then, the questionnaires were distributed, and learning outcomes were collected. The results of this study indicate that: (1) There is a significant relationship between infrastructure and learning outcomes of junior high school students in Purbalingga Regency, with a significance value of $0.000 < 0.05$. (2) There is a significant relationship between learning media and the learning outcomes of junior high school students in Purbalingga Regency, with a significance value of $0.000 < 0.05$. (3) There is a significant relationship between learning motivation and learning outcomes of junior high school students in Purbalingga Regency, with a significance value of $0.000 < 0.05$. (4) There is a significant relationship between learning media infrastructure and learning motivation on the learning outcomes of junior high school students in Purbalingga Regency, with a significance value of $0.000 < 0.05$.

KEYWORDS: infrastructure, learning media, learning motivation, learning outcomes

INTRODUCTION

Through the level of education in schools, students will be equipped with essential abilities and skills to be able to anticipate problems that exist in everyday life, including sports skills and other life skills (Harsuki, 2012: 97). Based on Government Regulation Number 32 of 2013 concerning National Education Standards, Article 1 Paragraph 9 explains that facilities and infrastructure standards are national education standards related to minimum criteria for learning spaces, sports venues, places of worship, libraries, laboratories, work workshops, playgrounds, recreational and creative places, as well as other learning resources needed to support the learning process including the use of information and communication technology. Furthermore, in Chapter VII Article 42 of Government Regulation No. 32 of 2013 concerning National Education standards, it is also explicitly stated that each educational unit must have facilities that include furniture, educational equipment, educational media, books and other learning resources, consumables, and other equipment needed to support a regular and continuous learning process.

According to Suherman (2004: 23), sports physical education and health is a learning process through physical activities designed to improve physical fitness, develop motor skills, knowledge and behaviours of healthy and active living, sportsmanship, and emotional intelligence. The learning environment is carefully regulated to improve the growth and development of each student's entire realm: physical, psychomotor, cognitive, and affective.

Infrastructure or equipment is everything that is needed in Physical Education. It can be moved (can be semi-permanent), but it is heavy and difficult to be moved. The infrastructure includes mattresses, jump crates, horses, single bars, parallel bars, tiered bars, table tennis tables, and trampolines. This equipment should not be moved so that it is not easily damaged unless the place is limited so that it must always be unloaded (Suryobroto, 2014: 4). According to Herman & Riady (2018: 5), physical education facilities are everything needed to support learning but the equipment is heavy even it can be moved. It is clearly stated in the Regulation of the Minister of National Education of the Republic of Indonesia Number 24 of 2007 concerning the standards of junior high school/MTS facilities and infrastructure. In line with the above statement, stated in the Law of the National School of

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Education Number 20 of 2003 Chapter VII Article 42 Paragraphs 1 and 2, it is stated that each educational unit must have the necessary facilities and infrastructure to support the learning process and be regular and sustainable. Turner, Calvert, & Chaloupka (2018: 8) argue that to improve and procure existing facilities in schools, it is necessary to have a good partner between the components in the school, both between the principal, teachers and staff of the facilities and infrastructure so that the facilities in the junior high school will be fulfilled to the maximum.

Purbalingga is one of the regencies in Central Java. Purbalingga Regency has approximately 767 Junior High Schools under the auspices of the Education and Culture Office of Purbalingga Regency. This data was obtained from the researcher's observation during his participation in the Subject Teacher Deliberation or MGMP (in Indonesian language, Musyawarah Guru Mata Pelajaran), both in public and private schools.

Based on the facts in the field and interviews conducted with several Physical Education teachers in Purbalingga Regency, one of the problems often faced by Physical Education teachers is the need for more facilities and infrastructure in Physical Education learning. The school still needs to be optimized in managing the facilities and infrastructure. It is also reinforced by statements from some Physical Education teachers when conducting subject-teacher deliberations (MGMP) at junior high schools. Many teachers also complain about lacking facilities and infrastructure that do not meet existing standards. This condition is due to the limited availability and quality of Physical Education facilities and infrastructure. For example, some sports equipment exists but still needs to be completed. Furthermore, there needs to be optimal management, maintenance, and monthly checking of the condition and number of Physical Education facilities. So that the facilities and infrastructure in the school are lost, quickly damaged and cannot be used. In this case, the school can maximize knowledge and understanding of the management of Physical Education facilities and infrastructure owned by the school.

Physical education facilities and infrastructure in schools are closely related to achieving learning goals. Physical education learning objectives and achieving achievements are of course inseparable from the availability of adequate physical education facilities and infrastructure, in accordance with sports standards, and in accordance with school needs, as well as supported by the management of physical education facilities and infrastructure. The existence of good management of sports facilities and infrastructure will contribute to Physical Education learning objectives and achievement of sports achievements, as well as the condition of Physical Education facilities and infrastructure will always be organized, maintained and always in a ready-to-use condition. This statement is emphasized by Matin and Fuad (2018: 1) who state that educational facilities and infrastructure are one of the resources that support the learning process at school. The success of educational programs at school is very much based on the condition of the educational facilities and infrastructure owned by the school. For this reason, there is a need for knowledge about the management of Physical Education facilities and infrastructure, learning media, as well as learning motivation starting from planning, procurement processes, inventory, use, maintenance and disposal of goods.

METHOD

This research is correlational quantitative; the data produced are in the form of percentage data in the form of numbers. This research was conducted at a junior high school in Purbalingga Regency in January 2023. Population is the overall object of research, and the sample is a part or representative of the population studied (Arikunto, 2006, p. 130). The population in this study were all junior high schools in Purbalingga Regency, totalling 77 schools. The sample is included in the part of the population that has specific characteristics and characteristics. The sampling technique used in this study, and it used total sampling consisting of 55 junior high schools in Purbalingga Regency. Research instruments are tools to facilitate data processing that researchers use to collect research data whose purpose is to facilitate the work so that the results of the data studied are more complete, systematic, and careful (Arikunto, 2010, p. 203).

DISCUSSION

The variable on infrastructure has 40 valid statement questions with a total of 55 school respondents. From the data obtained, facilities and infrastructure obtained results with a maximum value of 74, minimum value of 44, mode of 63, median of 63, mean of 61.84, and standard deviation of 7.911.

Table 1

Statistics

Infrastucture

N	Valid	55
	Missing	0

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Mean	61.84
Median	63.00
Mode	63[a]
Std. Deviation	7.911
Range	30
Minimum	44
Maximum	74

The number of interval classes obtained was 6 using the formula 1 + 3.3 log n. The data range in this variable is 74-44 = 30; with the knowledge of the range value, it is found that the class length for the interval of each group is 30:6 = 5; the following is the frequency distribution table.

The variable on learning media has 30 valid statement questions with 55 school respondents. The learning media were obtained from the data obtained with a maximum value of 53, minimum value of 30, mode of 33; median of 40 ; mean 40.18 ; and standard deviation of 6.295.

Table 2. Statistics Descrptive Of Learning Media

Statistics

Learning Media

N	Valid	55
	Missing	0
Mean		40.18
Median		40.00
Mode		33
Std. Deviation		6.295
Range		23
Minimum		30
Maximum		53

The number of interval classes obtained was 6 using the formula 1 + 3.3 log n. The data range in this variable is 74-44 = 30. With the knowledge of the range value, it is found that the class length for the interval of each group is 30:6 = 5. The following is the frequency distribution table.

The variable on learning motivation has 30 valid statement questions with 55 school respondents. From the data obtained, learning motivation obtained results with a maximum value of 100; minimum value of 54 ; mode 87 ; median 87 ; mean 81.42; and standard deviation of 12.047.

Tabel 3. Statistics descrptive of Learning Motivation

Statistics

Learning Motivation

N	Valid	55
	Missing	0
Mean		81.42
Median		87.00
Mode		87
Std. Deviation		12.047
Range		46
Minimum		54
Maximum		100

The number of interval classes obtained was a total of 6 classes using the formula 1 + 3.3 log n. For the data range in this variable is 74-44 = 30, with the knowledge of the range value, it is found that the class length for the interval of each group is 30:6 = 5, the following is the frequency distribution table.

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The variable on learning motivation has 30 valid statement questions with 55 school respondents. From the data obtained, learning motivation obtained results with a maximum value of 89 ; minimum value of 81 ; mode 85 ; median 84 ; mean 84.38; and standard deviation of 1.408.

Table 4. Statistics descrptive of Learning Outcomes

Statistics

Learning Outcomes

N	Valid	55
	Missing	0
Mean		84.38
Median		84.00
Mode		85
Std. Deviation		1.408
Range		8
Minimum		81
Maximum		89

The number of interval classes obtained was a total of 6 classes using the formula 1 + 3.3 log n. For the data range in this variable is 74-44 = 30, with the knowledge of the range value, it is found that the class length for the interval of each group is 30:6 = 5, the following is the frequency distribution table.

Table 5
Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	77.622	1.202		64.583	.000
	Infrastructure	.109	.019	.614	5.669	.000

Based on the SPSS output results regarding the correlation coefficient, the correlation coefficient value is 0.614 and this coefficient is a positive sign. It will show that physical education learning outcomes increase if the infrastructure increases. It can be seen that the relationship of facilities and infrastructure to physical education learning outcomes is significant. It is evidenced by Sig < α (0.000<0.05). It can be said that Ho is rejected and Ha is accepted, so it can be concluded that there is a positive and significant relationship between infrastructure to physical education learning outcomes at junior high schools in Purbalingga Regency.

A simple regression analysis will be used using the SPSS V.25.0 for Windows application to examine the significant relationship between learning media and physical education learning outcomes. Before determining the value of the relationship between learning media and physical education learning outcomes, it is necessary to analyze the relationship between the two variables. Meanwhile, the t-test results based on the results of the SPSS can be seen in the following table.

Table 6.
Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	78.014	.881		88.566	.000
	Learning Media	.158	.022	.709	7.316	.000

Based on the SPSS output results regarding the correlation coefficient, the correlation coefficient value is 0.614, and this coefficient is a positive sign. It will show that if the learning media increases, the learning outcomes of physical education also increase. It can be seen that the relationship of facilities and infrastructure to physical education learning outcomes is significant.

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It is evidenced by Sig < α (0.000<0.05). It can be said that Ho is rejected and Ha is accepted, so it can be concluded that there is a positive and significant relationship between infrastructure to physical education learning outcomes at junior high schools in Purbalingga Regency.

This research aims at exploring the relationship between infrastructure, learning media, and learning motivation and Physical Education learning outcomes at junior high schools in Purbalingga Regency. Research results are explained in detail in following section:

1. The relationship between Infrastructure (X1) and Physical Education Learning Outcomes (Y)

From the results of the stimulant test carried out with a significance value of Sig < α (0.000<0.05). It shows that infrastructure significantly correlates with physical education learning outcomes at junior high schools in Purbalingga Regency.

Based on the results of regression testing of the relationship between infrastructure facilities, the R square value was 0.366. It means that the variable infrastructure is related to physical education learning outcomes by 36.6% and by 63.4% determined by causes other than simple regression models or partial tests that were not studied in this study. So it can be said that Ho is rejected and Ha is accepted because the significance value is < 0.05.

According to Bachtriar (2015: 7), for the smooth learning of Physical Education, the school must be optimal in managing the facilities and infrastructure of Physical Education so that in the learning process, children will feel happy so that they can improve their skills and improve student body fitness. In line with existing theories, good infrastructure can affect learning processes and produce good learning outcomes. The more complete the existing infrastructure facilities, the higher the learning outcomes obtained.

2. The relationship between Learning Media (X2) and Physical Education Learning Outcomes (Y)

From the results of the stimulant test carried out with a significance value of Sig < α (0.000<0.05). It shows that infrastructure significantly correlates with physical education learning outcomes at junior high schools in Purbalingga Regency.

Based on the results of regression testing of the relationship between infrastructure facilities, the R square value was 0.366. It means that the variable infrastructure is related to physical education learning outcomes by 36.6% and by 63.4% determined by causes other than simple regression models or partial tests that were not studied in this study. So, it can be said that Ho is rejected, and Ha is accepted because the significance value is < 0.05.

Media is everything that can be used to channel messages from sender to receiver so that it can stimulate students' thoughts, feelings, attention, and interests in such a way that the learning process occurs (Sadiman, 2006: 6). It means that media can be used as a tool to shape the minds of students so that it can be applied in learning. In line with existing theories, it can show that good and interesting learning media can affect the learning process and produce good learning outcomes. It can be seen that the more interesting the learning media used, the easier it is to stimulate the minds of students, the higher the learning outcomes obtained.

3. The relationship between Learning Motivation (X3) and Physical Education Learning Outcomes (Y)

From the results of the stimulant test carried out with a significance value of Sig < α (0.000<0.05). This shows that infrastructure has a significant relationship with physical education learning outcomes at junior high schools in Purbalingga Regency.

Based on the results of regression testing of the relationship between infrastructure facilities, the R square value was 0.366. This means that the variable infrastructure is related to physical education learning outcomes by 36.6% and by 63.4% determined by causes other than simple regression models or partial tests that were not studied in this study. So it can be said that Ho is rejected and Ha is accepted because the significance value is < 0.05. Learning Motivation is an encouragement in students that can ensure the continuity of learning activities so that there is a change in their knowledge, skills, and attitudes and behaviors and the desired goals are achieved. The existence of Learning Motivation in students will make students have passion, feel happy and eager to learn. In line with existing theories, it can show that high learning motivation can affect the learning process and produce good learning outcomes.

The Relationship between Infrastructure (X1) Learning Media (X2) and Learning Motivation (X3) as a unit and Physical Education Learning Outcomes (Y).

From the results of the stimulant test carried out with a significance value of Sig < α (0.000<0.05). It shows that infrastructure has a significant relationship with physical education learning outcomes at junior high schools in Purbalingga Regency.

Based on the results of regression testing of the relationship between infrastructure facilities, the R square value was 0.366. This means that the variables of infrastructure, learning media and learning motivation together are related to physical education learning outcomes by 65.4% and the ratio of 35.5% is determined by other causes that were not studied in this study. So it can be said that Ho is rejected and Ha is accepted because the f count > f table value, and the significance value is < 0.05.

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CONCLUSION

The results of this study indicate that : (1) There is a significant relationship between infrastructure and learning outcomes of junior high school students in Purbalingga Regency, with a significance value of $0.000 < 0.05$. (2) There is a significant relationship between learning media on the learning outcomes of junior high school students in Purbalingga Regency, with a significance value of $0.000 < 0.05$. (3) There is a significant relationship between learning motivation and learning outcomes of junior high school students in Purbalingga Regency, with a significance value of $0.000 < 0.05$. (4) There is a significant relationship between infrastructure, learning media, and learning motivation as a unit and learning outcomes of junior high school students in Purbalingga Regency, with a significance value of $0.000 < 0.05$.

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