



## **Utilization of the Environment as a Source of Learning Physical Education in Junior High Schools in Martapura City**

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### **Abstract**

This study aims to describe the level of knowledge, utilization patterns, strategies, and obstacles of Physical Education teachers in utilizing the surrounding environment as a learning resource in junior high schools in Martapura City. The study used a quantitative method with a descriptive design, involving all Physical Education teachers in junior high schools in Martapura City totaling 12 teachers through a total sampling technique. The main research instrument was a questionnaire with a five-point Likert scale consisting of 13 questions regarding knowledge and frequency and 9 supporting questions regarding strategies and obstacles to environmental utilization. The results showed that the majority of Physical Education teachers had knowledge in the low category (42%), while the frequency of environmental utilization was dominated by the moderate category (50%). The combined tabulation of knowledge and frequency also showed that (42%) of teachers were in the moderate category. The most common utilization strategy was the use of school fields (70%), followed by the surrounding natural environment (27%), while public sports facilities and city parks were rarely utilized. The main obstacles faced included limited space, weather, student safety, distance, cost, and accessibility of facilities. The conclusion of this study shows that the use of the surrounding environment as a source of learning physical education in junior high schools in Martapura City is still not optimal, so it is necessary to increase training, mentoring, and development of facilities so that physical education learning becomes more innovative, effective, and contextual.

### **How to Cite**

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## INTRODUCTION

Physical activity is a fundamental aspect of everyday life that offers valuable advantages for developing both physical and mental well-being. Sports continue to contribute meaningfully to enhancing community health and play an important role in promoting sustainable development efforts. (Amirudin & Abdillah, 2020). In the context of physical education in schools, utilizing the surrounding environment as a learning resource is a highly relevant and important approach to enhancing the quality of learning. The environment is not merely a backdrop but also an interactive medium that enriches students' learning experiences through real physical activities. Outdoor learning has been proven to increase students' motivation and engagement, as stated. (Ngurah Arya Yudaparmita et al., 2024), "The utilization of the environment as a learning medium for physical education through the insertion of Tri Hita Karana values can enhance students' active and meaningful engagement" (Ngurah Arya Yudaparmita et al., 2024). The environment-based learning model is also effective in improving concept mastery and learning interest, as stated, "The outdoor-based environmental education learning model has been proven to enhance students' concept mastery and learning interest in physical education." (Fais et al., 2024).

However, many physical education lessons remain monotonous and do not fully utilize the potential of the surrounding environment, which lowers students' motivation and achievement. Another study emphasizes, "The utilization of the surrounding environmental potential as a medium for physical education learning significantly increases students' interest and academic achievement, especially in the aspect of motor skills." (Fais et al., 2024). Recent research also shows that outdoor education methods based on trekking and outbound activities can improve physical education learning outcomes on physical fitness material for seventh-grade junior high school students. (Dani Wiradhika Putra et al., 2024). A developing solution is the utilization of the school environment as a natural laboratory, movement exploration in the school garden, and challenge-based physical activities to train students' motor skills and character. This strategy also supports the holistic development of character and environmental awareness. (Widya Karmila Sari Achmad et al., 2024). Dengan pendekatan ini, pendidikan jasmani tidak hanya membangun kebugaran jasmani, tetapi juga karakter positif dan kepedulian lingkungan, seperti ditegaskan,

"Pembelajaran berbasis lingkungan mampu membentuk karakter peduli lingkungan sekaligus meningkatkan kebugaran jasmani siswa secara signifikan" (Indah Sari, 2023). With this approach, physical education not only builds physical fitness but also fosters positive character and environmental awareness, as emphasized, "Environment-based learning is capable of shaping environmentally caring character while significantly improving students' physical fitness." (Jamaluddin Imamy et al., 2024). In line with this, effective physical education is a learning process through physical activities designed to improve physical fitness, develop motor skills, knowledge and behaviors for a healthy and active lifestyle, sportsmanship attitudes, and emotional intelligence. (Arie Rakhman, 2023). Recent research also highlights that outdoor education-based physical education plays a role in the development of students' emotional intelligence. (Tedi Purbangkara & Nana Suryana Nasution, 2019).

Recent studies increasingly reinforce the urgency of an environment-based approach. (Murdiono et al., 2022) It shows that outdoor education games can improve students' physical fitness by taking into account individual motivation levels. (Riska Farolia & Ratna Candra Dewi, 2022) It was found that outdoor learning methods are effective in enhancing students' independence in physical education. (Setiawan et al., 2024) It affirms that outdoor adventure education at the high school level can significantly improve physical fitness. Additionally, a warm-up training module based on traditional games has also been proven to increase student engagement in physical education activities. (Edward Watunwotuk et al., 2023).

(Muhamad Rizki et al., 2024) In their research, it was shown that the Teaching Personal Social Responsibility (TPSR) learning model is more effective than the Cooperative Learning model in developing students' attitudes of tolerance and responsibility. Meanwhile, (Satria & Nur, 2020) It reveals that outdoor education activities contribute positively to the development of students' self-concept in elementary schools. (Rimasa et al., 2023) It reveals that outdoor education has a significant effect on students' personal and social responsibility as well as their physical fitness levels. Research from (Ihsan et al., 2024) It emphasizes the importance of outdoor education in promoting social-emotional development from the perspective of positive youth development.

Based on the description, this study aims to describe the level of knowledge, utilization patterns, strategies, and obstacles of Physical

Education teachers in utilizing the surrounding environment as a source of learning for physical education in junior high schools in Martapura City. This study is expected to contribute to the development of innovative and contextual Physical Education learning, as well as encourage the formation of character, motor skills, and environmental awareness holistically. The detailed objectives of the study include describing the level of knowledge of Physical Education teachers regarding the utilization of the surrounding environment as a source of learning, identifying patterns of environmental utilization in learning, analyzing strategies applied by teachers, and revealing obstacles faced in the implementation of environment-based learning.

The formulation of the problem in this study is how is the level of knowledge of Physical Education teachers regarding the utilization of the surrounding environment, what are the utilization patterns and strategies used, and what obstacles are faced by teachers in utilizing the environment as a source of learning for physical education.

The novelty of this study lies in a comprehensive approach that integrates aspects of knowledge, utilization patterns, strategies, and constraints of Physical Education teachers in the context of Junior High Schools in Martapura City, with an emphasis on utilizing the school environment as a natural laboratory that not only improves physical fitness but also forms character and environmental awareness simultaneously. In addition, it provides a real contribution to the development of socially and culturally relevant physical education, and strengthens previous findings regarding the effectiveness of outdoor education in improving students' motivation, motor skills, emotional intelligence, and positive attitudes. Thus, this study is expected to be a foundation for innovation in more contextual and holistic Physical Education learning in the future.

## METHODS

This study uses a quantitative method with a descriptive design that aims to describe the use of the surrounding environment as a source of learning physical education in junior high schools in Martapura City systematically through questionnaires and analyzed using descriptive statistics. This approach was chosen because it is in accordance with previous studies that show that the use of the school environment can increase activity, student learning motivation, and effectiveness in improving physical fitness and envi-

ronmental awareness of students. (Ngurah Arya Yudaparmita et al., 2024). The main research instrument is a questionnaire with a five-point Likert scale consisting of 13 questions regarding background, knowledge, frequency and 9 supporting questions regarding strategies, and obstacles to utilizing an open-ended question environment to explore teachers' experiences in implementing character values. The validity of the instrument content is tested through expert assessment to ensure the suitability and accuracy of the data.

The research subjects were all Physical Education teachers in junior high schools in Martapura City using the total sampling technique, namely the entire population was used as a sample, according to the recommendation stating that total sampling is appropriate to use if the population is limited so that the data is representative. (Faris Izdihar, 2023). The data collected includes quantitative data in the form of questionnaire scores that measure frequency, knowledge, attitudes, environmental utilization strategies, and obstacles faced by teachers, as well as qualitative data from open answers regarding teachers' experiences and views regarding the application of character values in physical education learning.

Data collection was conducted by distributing questionnaires to all physical education teachers independently, then the data was summarized, verified, and prepared for analysis. Data analysis used descriptive statistics by calculating frequencies, percentages, and average values to describe the pattern of teacher utilization and perceptions of the environment as a learning resource. The results are presented in the form of tables, bar graphs, and pie charts to provide a clear visual picture, in accordance with the findings that emphasize the importance of simple environmental media modifications to increase student motivation and understanding of sports movements. (Ngurah Arya Yudaparmita et al., 2024).

The assessment reference norm uses intervals based on the mean (M) and standard deviation (SD) with categories of very high, high, moderate, low, and very low, which helps in the interpretation of research results. Overall, this quantitative descriptive method allows for an objective description of phenomena with statistically processed numerical data, without the need for a control group, and data collection is carried out in one period with a cross-sectional survey approach, according to the characteristics and objectives of quantitative descriptive research which emphasizes the description of conditions or phenomena systematically and factually

through data that can be measured and analyzed statistically

**Table 1.** Assessment reference norms

Interval	Category
$X > M + 1,5 \text{ SD}$	Very High
$M + 0,5 \text{ SD} < X < M + 1,5 \text{ SD}$	High
$M - 1,5 \text{ SD} < X < M + 0,5 \text{ SD}$	Moderate
$M - 1,5 < X < M + 0,5 \text{ SD}$	Low
$X < M - 1,5 \text{ SD}$	Very Low

Source: (Niko Wisnu Murti, 2018)

$$p = f/N \times 100\%$$

p = percentage

f = frequency

N = Number of Cases

Source: (Niko Wisnu Murti, 2018).

## RESULTS AND DISCUSSION

Based on this method, the following presents the results of a descriptive analysis of the use of the environment as a source of learning for Physical Education in junior high schools in Martapura City.

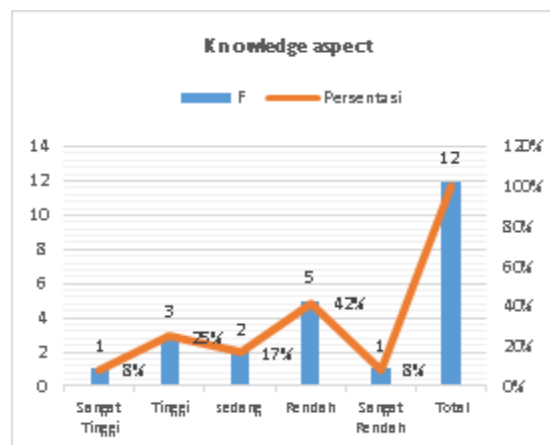
**Table 2.** Knowledge aspect

Interval	Category
$X > M + 1,5 \text{ SD}$	Very High
$M + 0,5 \text{ SD} < X < M + 1,5 \text{ SD}$	High
$M - 1,5 \text{ SD} < X < M + 0,5 \text{ SD}$	Moderate
$M - 1,5 < X < M + 0,5 \text{ SD}$	Low
$X < M - 1,5 \text{ SD}$	Very Low

From the results **Table 2** of the knowledge aspect data of 12 Physical Education teachers in Junior High Schools in Martapura City, it can be seen that 8% of teachers have very high knowledge, 25% high, 17% moderate, 42% low, and 8% very low. The majority of teachers (42%) are in the low to very low category, indicating that knowledge about utilizing the environment as a learning resource still needs to be improved.

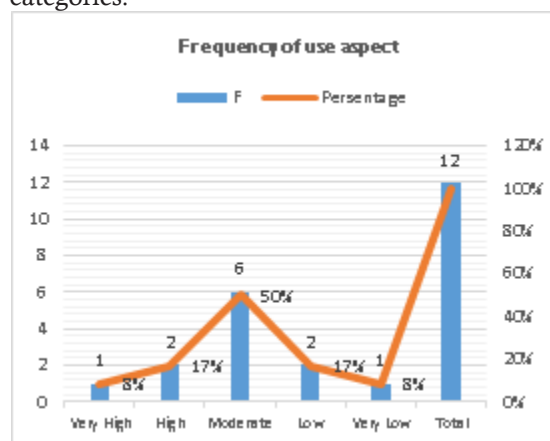
**Table 3.** Frequency of use aspect

Category	Interval	F	Percentage
Very High	$X > 44,77$	1	8%
High	$40,70 < X < 44,77$	3	25%
Moderate	$36,63 < X < 40,70$	2	17%
Low	$32,56 < X < 36,63$	5	42%
Very Low	$X < 32,56$	1	8%
<b>Total</b>		<b>12</b>	<b>100%</b>



**Figure 1.** Knowledge aspect

From the results **Table 3** of the data on the frequency aspect of environmental utilization by 12 Physical Education teachers at Junior High Schools in Martapura City, as many as 8% of teachers are in the very high category, 17% high, 50% moderate, 17% low, and 8% very low. The majority of teachers (50%) showed a level of environmental utilization in the moderate category, while a small portion was in the low and very low categories.



**Figure 2.** Frequency of use aspect

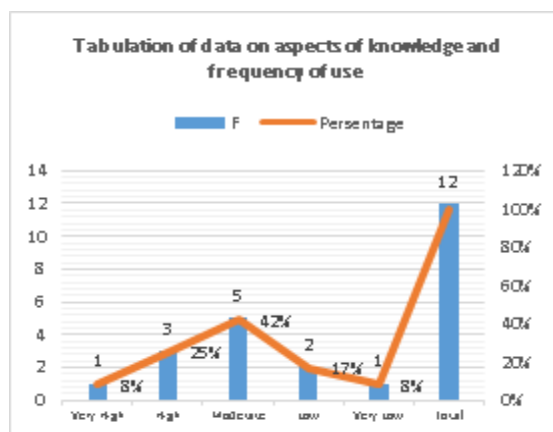
**Table 4.** Tabulation of data on aspects of knowledge and frequency of use

Category	Interval	F	Percentage
Very High	$X > 60,49$	1	8%
High	$54,83 < X < 60,49$	3	25%
Moderate	$49,17 < X < 54,83$	5	42%
Low	$43,51 < X < 49,17$	2	17%
Very Low	$X < 43,51$	1	8%
<b>Total</b>		<b>12</b>	<b>100%</b>

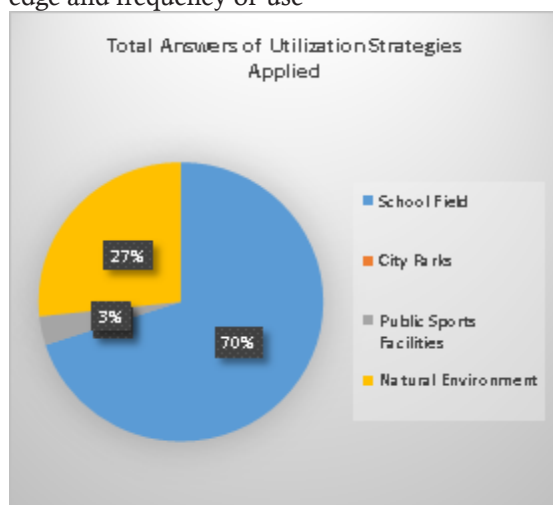
From the tabulation **Table 4** of data on knowledge and frequency of environmental uti-



lization by 12 Physical Education teachers in Junior High Schools in Martapura City, as many as 8% of teachers are in the very high category, 25% high, 42% moderate, 17% low, and 8% very low. The majority of teachers (42%) are included in the moderate category, indicating a sufficient level of knowledge and frequency of environmental utilization, but there are still some teachers who need improvement in the low and very low categories.



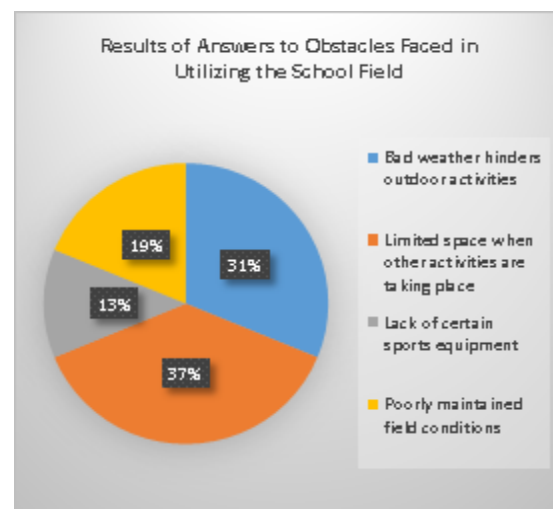
**Figure 3.** Tabulation of data on aspects of knowledge and frequency of use



**Figure 4.** Total Answers of Utilization Strategies Applied

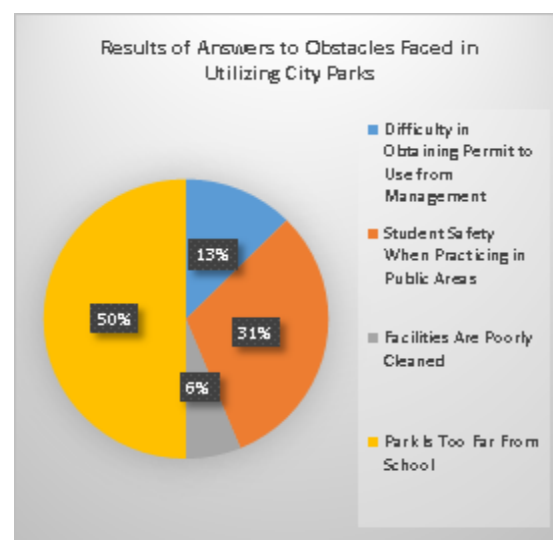
From **Figure 4** the recapitulation of data on the strategy for utilizing the surrounding environment determined by 12 Physical Education teachers in junior high schools in Martapura City on five sports learning materials (Attack/Invasion, Defense, Athletics, Rhythmic Movement, and Traditional Games), from a total of 60 answer choices, the majority of teachers (70%) or 42 chose to utilize the school field as a learning medium. The natural environment was chosen 16 times (27%), while public sports facilities were only chosen 2 times (3%). Interestingly, city parks

were not chosen at all (0%). These data show that the school field is the main source of learning, while the utilization of the natural environment is still limited and sports facilities are underutilized in Physical Education learning.



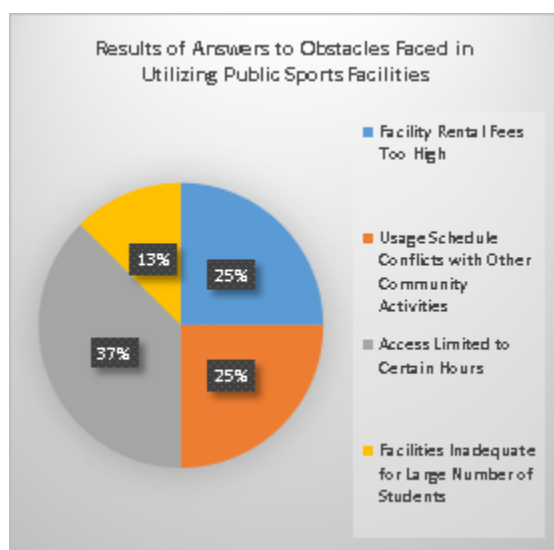
**Figure 5.** Results of Answers to Obstacles Faced in Utilizing the School Field

From **Figure 5** the results of the answers of 12 Physical Education teachers regarding obstacles in utilizing the school environment, the main obstacle is limited space when there are other activities (37%), followed by bad weather that prevents outdoor activities (31%). In addition, poorly maintained field conditions are an obstacle for (19%) of teachers, while the lack of sports equipment is only experienced by (13%) of teachers. These data show that limited space and weather are the most significant obstacles in utilizing the school environment.



**Figure 6.** Results of Answers to Obstacles Faced in Utilizing City Parks

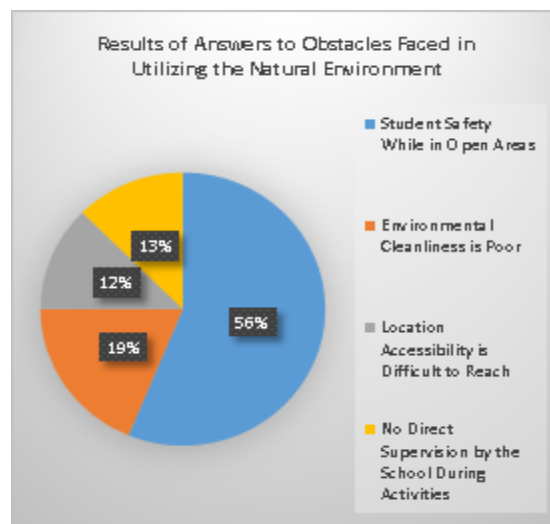
From **Figure 6** the results of the answers of 12 Physical Education teachers regarding the obstacles in utilizing city parks, the main obstacle is the distance of the park that is too far from the school (50%). In addition, student safety when practicing in public areas is a concern for 31% of teachers, difficulty in obtaining permission to use from the management is experienced by 13% of teachers, and poor cleanliness of facilities is an obstacle for 6% of teachers. These data show that distance and safety aspects are the main obstacles in utilizing city parks as learning resources.



**Figure 7.** Results of Answers to Obstacles Faced in Utilizing Public Sports Facilities

From **Figure 7** the results of the answers of 12 Physical Education teachers regarding the obstacles in utilizing public sports facilities, the main obstacle is limited access at certain hours (37%). In addition, the cost of renting facilities that are too high and the schedule of use that clashes with other community activities are both obstacles for 25% of teachers. Inadequate facilities for the large number of students are experienced by 13% of teachers. These data show that limited access and costs are the main obstacles in utilizing public sports facilities.

From **Figure 8** the results of the Physical Education teachers' answers regarding obstacles in utilizing the natural environment, the main obstacle is student safety when in open areas (60%). Poor environmental cleanliness is a concern for 19% of teachers, while accessibility of locations that are difficult to reach and the lack of direct supervision by the school during activities are reported by 12% and 13% of teachers, respectively. These data indicate that the safety factor is the most significant obstacle in utilizing the natural environment.



**Figure 8.** Results of Answers to Obstacles Faced in Utilizing the Natural Environment

The results of the study showed that the knowledge of physical education teachers at junior high schools in Martapura City regarding the use of the surrounding environment as a learning resource was in the low category. This finding indicates that a deep understanding of environmental integration in physical education learning is not yet evenly distributed, possibly due to a lack of training or socialization related to environment-based learning methods. However, the presence of some teachers with high knowledge indicates the potential to be developed through mentoring programs or workshops, in accordance with the statement (Ngurah Arya Yudaparmita et al., 2024) that increasing teacher knowledge has a great influence on the success of environmental-based Physical Education learning.

In terms of frequency of use, it shows that the knowledge of Physical Education teachers in Junior High Schools in Martapura City as a learning resource is in the moderate category, teachers tend to utilize easily accessible environments, especially school fields and the surrounding natural environment, while public sports facilities and city parks are underutilized. This is related to obstacles such as distance, cost, and security that limit the use of these facilities. The relationship between knowledge and practices of less than optimal environmental utilization strengthens the finding that low knowledge has an impact on limited utilization, especially due to security and accessibility factors which are the main obstacles.

The dominant strategy for utilizing the environment is the use of the school field as the main learning moderate, due to easy access and comfort. The surrounding natural environment is also used, especially for athletic and rhythmic activities.

mic movement materials, while special sports facilities and city parks are rarely utilized, possibly due to permit and security constraints. This strengthens previous findings that utilizing the environment as a moderate for learning Physical Education through the insertion of Tri Hita Karana values facilitates understanding of sports movements with simple media. However, limited facilities and infrastructure remain a challenge that requires teachers' creativity in optimizing existing learning resources. (Ngurah Arya Yudaparmita et al., 2024).

The challenges faced by teachers vary by facility type. In school fields, limited space and bad weather are major barriers, while in city parks, distance and student safety are major concerns. Public sports facilities face challenges of limited access and high costs, while in the natural environment, student safety is the biggest concern. This condition confirms that the challenges of facilities, infrastructure, and teacher adaptation are major inhibiting factors in environmental-based Physical Education learning, as also highlighted by other studies. (Mustafa, 2022).

The positive impact of utilizing the surrounding environment is increasing motivation, involvement, and active participation of students. The surrounding environment functions as a natural laboratory that provides direct learning experiences, so that learning becomes more meaningful and enjoyable. This finding is in line with research results showing that nature-based learning increases learning interest and achievement, especially students' motor skills. (Fais et al., 2024). In addition, character development and environmental awareness are also important benefits of this approach. (Septi Rahmadani Sinaga & Winara, 2025). Teachers also gain benefits in the form of developing creativity and innovation in designing learning, which supports the formation of environmentally conscious characters as well as students' physical fitness. (Ngurah Arya Yudaparmita et al., 2024).

Overall, this study shows that the use of the surrounding environment as a source of learning Physical Education in Junior High Schools in Martapura City has been running quite well but still faces various obstacles that need to be overcome. Improving teacher knowledge, developing facilities, learning innovations, as well as policy support and collaboration with parties outside the school are needed so that environmental-based learning can be more optimal. This finding is consistent with previous studies that emphasize the importance of teacher capacity and adaptation strategies in overcoming limitations, so that

Physical Education learning can run more effectively, enjoyably, and form healthy, active, and character-based students.

The limitations of this study include the focus on one city and the sample is limited to physical education teachers, so the results cannot be generalized widely. Further research with a wider scope and mixed methods is recommended to provide a more comprehensive picture of the use of the environment in physical education.

## CONCLUSION

Based on the results of the study, it can be concluded that the use of the surrounding environment as a source of learning physical education in junior high schools in Martapura City is still limited and not optimal. that knowledge about the integration of the environment into physical education learning is not evenly distributed among teachers. This condition indicates the need for increased capacity and training for teachers so that the use of the environment can be maximized.

The frequency of environmental utilization as a learning resource also shows a similar pattern. This means that the use of the environment by Physical Education teachers is carried out quite routinely by some teachers, but there are still some who do it with a low frequency.

Based on the tabulation of data between the aspects of knowledge and frequency of use, the majority of teachers are in the moderate category, but there are still some who are in the low and very low categories. This shows a relationship between the level of knowledge and the frequency of use, where low knowledge tends to have an impact on the low frequency of use of the environment as a learning resource.

In practice, the school field is the main learning resource that is most often used by Physical Education teachers for various learning materials. The surrounding natural environment is also used, although it is still limited, while public sports facilities are rarely used and city parks are almost never used at all. This pattern shows that the use of the environment is still focused on areas that are easily accessible and have minimal obstacles.

The strategy of utilizing the environment applied by teachers tends to be practical, namely by maximizing the facilities already available at school and only utilizing the environment outside the school if possible and safe for students. Teachers prefer strategies that do not require additional costs and are easy to supervise, so that



environmental-based learning innovations still need to be improved.

Various obstacles are faced by teachers in utilizing the surrounding environment, such as limited space and weather in the school environment, distance and safety aspects in city parks, access and costs to public sports facilities, and safety and cleanliness factors in the natural environment. These obstacles are the main factors that limit the use of the environment as a source of learning Physical Education.

Overall, based on the results of the study, it can be concluded that the use of the surrounding environment as a source of learning physical education in junior high schools in Martapura City has been running, but still needs to be improved in terms of teacher knowledge, frequency of use, variety of learning resources, and innovative learning strategies. Efforts to improve training, provide adequate facilities, and strengthen security and accessibility aspects are needed so that environmental-based physical education learning can run more effectively, contextually, and be able to shape students' character, motor skills, and environmental awareness holistically. Thus, all the specific objectives of this study have been answered completely and comprehensively.

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