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Assessment of Physical Education, Sport, and Health Facilities and Infrastructure at SMP Negeri 7 Wera Satap: A Survey Study

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Abstract

Objectives. This study aimed to examine whether the Physical Education, Sport, and Health (PJOK) facilities and infrastructure at SMP Negeri 7 Wera Satap meet the required standards. The study also sought to describe the overall adequacy of existing facilities in supporting PJOK learning.
Materials and Methods. A qualitative descriptive approach was used to portray the availability of PJOK facilities and infrastructure by comparing what the school has with what is needed for learning activities. Data were collected through direct observation and documentation of the existing facilities and equipment.
Results. The findings show that the PJOK facilities and infrastructure at SMP Negeri 7 Wera Satap are **fairly adequate** to support the learning process. Overall, the available facilities help teachers deliver material more effectively and allow students to engage directly with sports equipment during lessons.
Conclusions. The study concludes that SMP Negeri 7 Wera Satap has PJOK facilities and infrastructure that are sufficiently supportive for learning, although continued improvement is still important to ensure learning can run optimally and align more closely with the expected standards.

Keywords: Physical education, School facilities, Sports infrastructure, Facility assessment, Survey study.

Introduction

Physical Education, Sport, and Health (PJOK) learning is closely linked to the availability of facilities and infrastructure at school. In many cases, students' progress in mastering skills depends on whether they have enough space and equipment to practice properly (Abduh et al., 2024; Abusleme-Allimant et al., 2023; Andika et al., 2024). PJOK tends to run less effectively when facilities are limited, considering that most sports activities require different types of courts, fields, and equipment(Akmal, 2024; Destriana et al., 2023a). Facilities are not only needed in terms of quantity, but they also have to match the learning objectives and be used with proper supervision so the activities remain safe and well controlled (Adegbija & Fakomogbon, 2013; Aisha Kakembo, 2025; Alamäki et al., 2024).

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The reality is that schools face different challenges depending on their location. In urban areas, limited land and dense development often make it difficult for schools to provide open spaces such as fields or courts (Chinhara & Kuyayama, 2024; Du Plessis, 2014). This condition can slow down lessons because students have fewer chances to move and practice. Schools in rural or suburban areas may have wider open land, but they often struggle with incomplete or insufficient sports equipment. Still, this pattern is not always fixed (Du Plessis, 2014). Some urban schools may meet the required standards, and some rural schools may also provide adequate facilities(Chinhara & Kuyayama, 2024; Fazel et al., 2014). Because of that, facility conditions need to be checked directly rather than assumed based on location.

Limited equipment affects the learning process in simple but serious ways (Adipat et al., 2021; Akbari & Sahibzada, 2020; Roman et al., 2021). When students must take turns using the same tools, practice time becomes shorter and many students spend more time waiting than moving(Behan, 2020; Lynott & Bittner, 2019). Over time, this can reduce students' involvement in class, make them lose interest, and prevent the lesson from reaching its intended outcomes, including fitness goals.

(Hidayat & Sujarwo, 2022)In this study, facilities (sarana) refer to movable equipment used in PJOK lessons, such as balls, rackets, nets, and other tools. Infrastructure (prasarana) refers to more permanent resources that support learning, such as courts, fields, sports halls, and stadiums. Both are equally important because they help turn PJOK learning into direct, hands-on practice rather than something that stays abstract(Hidayat & Sujarwo, 2022).

Although facilities and infrastructure are essential, many schools in Indonesia still deal with shortages in both. Some schools lack space, while others have facilities that are not proportional to the number of students or are not in suitable condition for learning. Based on this situation, the purpose of this study is to assess whether the PJOK facilities and infrastructure at SMP Negeri 7 Wera Satap meet the required standards.

Novelty: This study provides a school-level, indicator-based assessment that combines direct observation, documentation, and teacher interviews to map facility adequacy across athletics, games, and rhythmic activities, offering practical evidence for targeted improvement rather than general assumptions about school location.

Materials and Methods

Study Participants.

This study was carried out at SMP Negeri 7 Wera Satap. The research used a population approach, so the school became the main unit of analysis (Sugiyono, 2017a).

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Information was taken from school records and field data related to PJOK facilities and infrastructure, including the number of items, their condition, and ownership status. An interview was conducted with the PJOK teacher as the key informant to clarify how the facilities are used in daily learning activities.

Study organization.

Please provide information on the different techniques utilized and their specific objectives, along with a detailed guide on the research methodologies and step-by-step process for conducting a pedagogical experiment (Sugiyono, 2017b).

A qualitative descriptive design was applied to describe the availability of PJOK facilities and infrastructure by comparing what the school has with what is required for learning. The study was conducted in the following stages:

1. **Preparation**

   The researcher arranged the research permit, set a schedule, and prepared the observation checklist as the main instrument.

2. **Interview**

   The PJOK teacher was interviewed to gather information on the condition of facilities and infrastructure and to confirm how they support PJOK lessons.

3. **Field survey and observation**

   Direct observation was carried out at the school to record the type, quantity, and condition of the facilities. Documentation was also collected to support the observation results.

Data Collection Techniques and Instruments

Data collection used three main techniques:

1. **Documentation**

   Documentation was used to obtain supporting data from the school, such as student-related records and other information relevant to PJOK learning needs.

2. **Observation**

   Observation was conducted by systematically recording the available PJOK facilities and infrastructure at SMP Negeri 7 Wera Satap. The observation focused on the type of equipment, the number of items, and their condition (good or damaged).

3. **Research instrument**

   This study used a survey method supported by an observation checklist. The checklist covered several activity areas, including athletics, games (e.g., volleyball, basketball,

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soccer, handball), and rhythmic activities (e.g., gymnastics), with notes on the quantity and condition of each item.

Statistical analysis.

The analysis combined qualitative description with simple percentage calculations to show facility adequacy. After data were collected, the facilities were tabulated by sport/activity category and analyzed through these steps:

1. Recording the number of students, number of classes, and the average number of students per class.
2. Listing the PJOK facilities and infrastructure available at the school.
3. Determining the ideal number of facilities needed for each sport taught at the school.
4. Calculating the adequacy percentage using the formula:

$$\text{Adequacy (\%)} = \frac{\text{Available facilities}}{\text{Ideal facilities}} \times 100\%$$

5. Interpreting the results using the facility adequacy **criteria:** 81–100% (Very Adequate), 61–80% (Adequate), 41–60% (Fairly Adequate), 21–40% (Less Adequate), and 0–20% (Very Less Adequate) (Arikunto, 2010)

Qualitative data from interviews and observations were further analyzed using the Miles and Huberman framework: data reduction (selecting and summarizing relevant data), **d**ata display (organizing the findings in narrative and thematic form), and conclusion drawing/verification (interpreting the results based on the research objectives and relevant references).

Results

Overview of the Research Site

SMP Negeri 7 Wera Satap is located on Jalan Lintas Desa Oi Tui, Wera Subdistrict, Bima Regency, West Nusa Tenggara Province. The school is fairly easy to reach, as it is around 15 km from the researcher's residence. It was established in 2010 and sits on a land area of 13,699 m². Most students come from Oi Tui Village and nearby areas. Student enrollment in the 2025/2026 academic year was higher than in previous years. In total, the school had 24 students, grouped into three classes, with an average of 8–12 students per class.

Availability of PJOK Facilities and Infrastructure

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Based on direct observation and document review, PJOK facilities and infrastructure at SMP Negeri 7 Wera Satap were grouped into three activity areas: athletics, games, and rhythmic activities.

1) Athletics

As shown in Table 5, the overall availability of facilities for athletics was **77%**, which falls under the **adequate** category.

More specifically:

1. **Running events** (track, starting blocks, relay batons, stopwatch) were mostly available and in good condition, reaching **96%** (*very adequate*).
2. **Long jump** equipment reached **83%** (*adequate*), although a few items were missing or not in good condition.
3. **Javelin throw**, **discus throw**, and **shot put** recorded **100%** (*very adequate*) because the key equipment and activity areas were available and in good condition.
4. **High jump** equipment was not available at all, resulting in **0%** (*very inadequate*).

Overall, athletics activities were well supported for running and throwing events, but there was a clear gap in high jump facilities.

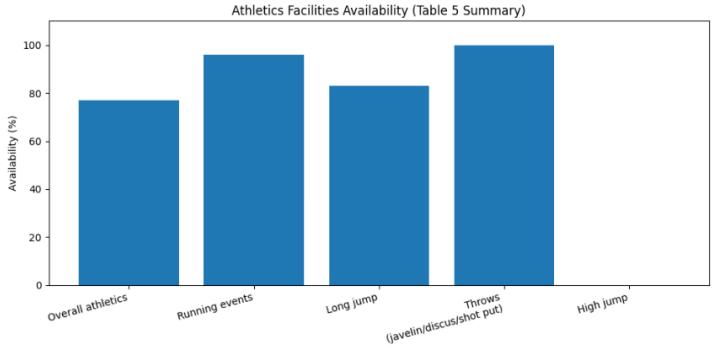

Figure 1. Athletics Facilities Availability at SMP Negeri 7 Wera Satap

2) Games

Based on Table 6, facilities for games reached **64.5%** and were categorized as **adequate**, although the level of availability differed across sports.

The results show that:

1. **Volleyball** was the most supported sport, with the court, net posts, net, balls, and whistle all reported at **100%** (*very adequate*).

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2. **Basketball** was the weakest area. The court, ring posts, and balls were not available (**0%**), while the whistle was available (**100%**). The overall percentage for basketball was **25%** (*less adequate*).
3. **Soccer** reached **58%** (*fairly adequate*). The field was available (**100%**), but some balls were damaged and goalposts were not available (**0%**).
4. **Handball** reached **75%** (*adequate*). The field and balls were available (**100%**), but goalposts were not available (**0%**).

In general, volleyball facilities were the strongest, while basketball and key supporting equipment for soccer and handball remained limited.

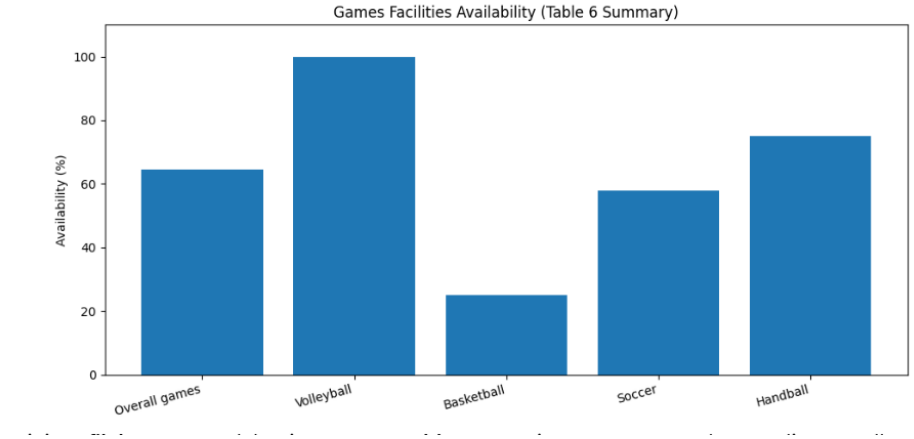

Figure 2. Games Facilities Availability at SMP Negeri 7 Wera Satap

3) Rhythmic Activities

As shown in Table 7, rhythmic-activity facilities reached **55.6%**, placing them in the **fairly adequate** category.

In detail:

1. Available items included **jump ropes (100%)**, a **tape recorder (100%)**, and **gymnastics cassettes (34%)**.
2. Several items were not available, such as **rattan hoops** and a **balance beam** (**0%**).
3. For **martial arts**, all required equipment was not available (**0%**), including uniforms, body protectors, and punching bags.

This suggests that rhythmic activities can still be conducted in a limited form, but support is incomplete, especially for martial arts materials.

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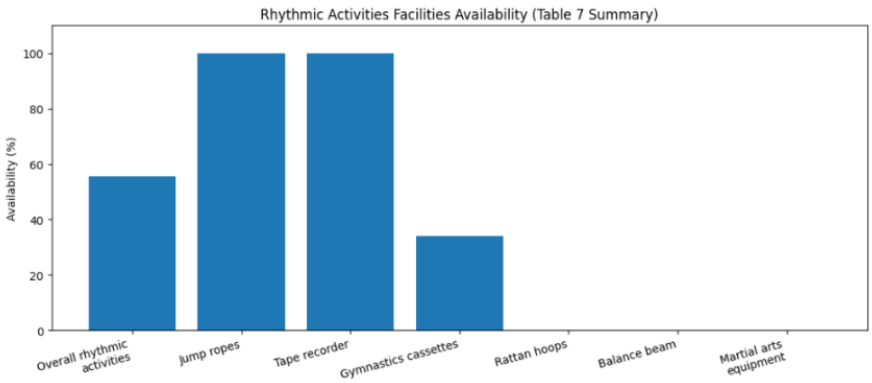

Figure 3. Rhythmic Activities Facilities Availability at SMP Negeri 7 Wera Satap

Summary of PJOK Facilities and Infrastructure

Based on the recap in Table 8, the overall condition of PJOK facilities and infrastructure at SMP Negeri 7 Wera Satap is summarized below:

Table 1. Overall Percentage and Category of PJOK Facilities and Infrastructure at SMP Negeri 7 Wera Satap

Activity Area	Percentage	Category
Athletics	77%	Adequate
Games	64.5%	Adequate
Rhythmic activities	55.6%	Fairly adequate
Average	**65.7%**	**Adequate**

Overall, the average availability of PJOK facilities and infrastructure was **65.7%**, meaning it was **adequate**. However, several components still require improvement, particularly **high jump**, **basketball**, and **martial arts equipment**.

Discussion

This study started from the assumption that the availability and condition of Physical Education, Sport, and Health (PJOK) facilities and infrastructure play a major role in how smoothly PJOK learning runs at school. The findings support that assumption. At SMP Negeri 7 Wera Satap, the overall facility availability reached **65.7%**, which falls into the **adequate** category. In other words, the school already has enough supporting resources to carry out PJOK lessons, although some parts still need attention.

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This result matches the point raised in the introduction: facilities and infrastructure are not simply "extra support," but part of what makes PJOK learning possible (Adipat et al., 2021; Alotaibi, 2024). When equipment and learning spaces are available, teachers can deliver material more clearly, and students get more chances to repeat skills during practice. Adequate facilities also tend to keep students more engaged because they spend less time waiting and more time moving. This is in line with general arguments in physical education studies that link learning resources to student participation and skill development(ALI MARDIUS et al., 2024; Chang et al., 2020; Hidayat & Sujarwo, 2022).

From a practical view, the facilities at SMP Negeri 7 Wera Satap are already able to support the main PJOK content areas—athletics, games, and rhythmic activities. The available equipment helps lessons become more hands-on, not only theoretical. Beyond regular classes, the school's facilities also seem to contribute to sports development through clubs and extracurricular activities (Futhira et al., 2024; Rahayu & Dong, 2023; Sukmanawati & Suherman, 2025). The school has been able to produce student-athletes who join clubs and take part in competitions, and several achievements have been reported.

Even so, the study also found clear limitations, especially in infrastructure. The most noticeable issue is the lack of a sports field that meets standard conditions. The existing field is used as a multi-purpose area for sports, flag ceremonies, and extracurricular activities, which limits its availability for PJOK lessons. Interviews with the PJOK teachers (Mr. M. Taufan, S.Pd. and Ms. Imasaibunnisa, S.Pd.) also highlighted that the field condition changes with the season—for example, cracked and dusty in the dry season, and muddy or slippery during the rainy season.

Despite these constraints, PJOK teachers have tried to keep lessons running by adjusting their teaching strategies (Anghelo Josué et al., 2023; Cojocaru et al., 2022; Roman et al., 2021). One solution is using empty land beside the school for practice and assessment, especially for activities that require more space. Teachers also use modified equipment as a starting point to introduce movement skills before students practice using the actual equipment available at school. Based on the teachers' experience, this approach helps reduce the impact of limited facilities and keeps students actively involved during lessons (Behan, 2020; Brewer, 2017; Madu et al., 2025).

These findings emphasize the need for proper facility planning. Planning is not only about having equipment, but also about making sure the type, quantity, and quality match learning needs. In this context, teacher creativity in developing modified equipment is not

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just a workaround, but a practical response to limited infrastructure that helps learning goals remain achievable.

In terms of application, the results can be used as input for school management and PJOK teachers(Destriana et al., 2023b). The school could gradually improve infrastructure, especially by repairing and upgrading the sports field surface so it is safer and usable throughout the year. It would also be helpful to add equipment in areas that are still weak so the school can meet curriculum demands more evenly. While waiting for these improvements, the strategies currently used by teachers—alternative practice areas and modified tools—can continue as workable solutions.

For future research, similar facility assessments could be conducted in more schools across different regions to allow comparisons between settings. Further studies may also connect facility adequacy with learning outcomes, such as skill improvement, student activity levels during class, or sports achievements over time.

Conclusions

This study aimed to assess whether the Physical Education, Sport, and Health (PJOK) facilities and infrastructure at SMP Negeri 7 Wera Satap meet the required standards. Using a qualitative descriptive survey through observation, documentation, and interviews, the study evaluated the availability and condition of facilities across athletics, games, and rhythmic activities.

The results show that the overall availability of PJOK facilities and infrastructure reached 65.7%, which falls into the adequate category. Athletics facilities were generally adequate (77%), games facilities were also adequate (64.5%), and rhythmic-activity facilities were fairly adequate (55.6%). Even so, several important components were still lacking, especially high jump facilities, basketball equipment, and martial arts equipment, as well as the limited condition of the school's sports field.

In summary, SMP Negeri 7 Wera Satap has PJOK facilities and infrastructure that are sufficient to support learning, but improvements are still needed to make lessons run more evenly across all PJOK materials and to better match expected standards.

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Conflict of interest

The authors declare that there are no conflicts of interest regarding the publication of this study.

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