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ANALYSIS OF COLLEGE STUDENTS' NEEDS FOR SPORTS FACILITIES

**James Brian Lee ¹, Mikhael Xylon Santosayuwono ²,
Kendra Ananditya Shandyakiran ³, Muhammad Fadhil Dhiya Ulhaq ⁴**

^{1 2 3 4} Institut Teknologi Bandung, West Java, Indonesia

* Coessponding Author: kendraanandity@gmail.com

Information	Abstract
History: Submitted; January 2026 Revised; February 2026 Accepted; March 2026 Keywords: College; Student; Sport; Facility.	Adequate sports facilities play a crucial role in supporting students' physical and mental health. A busy academic life needs to be balanced with supporting facilities that can maintain student fitness and health, one of which is through sports activities. At the Bandung Institute of Technology (ITB), the availability of sports facilities is uneven between the Ganesha and Jatinangor Campuses. Ganesha Campus, as the campus with the most comprehensive facilities currently, has adequate sports facilities such as Saraga, which includes a gym and swimming pool. In contrast, ITB Jatinangor Campus does not yet have similar facilities of equal quality, resulting in inequality perceived by students. This study aims to identify the perceptions and needs of ITB Jatinangor Campus students regarding sports facilities. Using a quantitative descriptive approach through questionnaire distribution, it was found that most students rarely use the available sports facilities due to limitations in quantity, quality, and accessibility. Outdoor facilities such as sidewalks and running tracks are utilized more often than indoor facilities that require permits. Fifty-two percent of respondents considered the current facilities inadequate and hoped for the construction of new facilities such as swimming pools and gyms. These results recommend the need for the development of more inclusive and sustainable sports infrastructure to support student health and well-being.

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**James Brian Lee – Mikhael Xylon Santosayuwono –
Kendra Ananditya Shandyakiran – Muhammad Fadhil Dhiya Ulhaq**

INTRODUCTION

Sport is a series of structured physical activities undertaken with the goal of improving an individual's physical fitness and mental health (Caspersen, Powell, & Christenson, 1985). Since ancient times, humans have practiced basic movements—walking and running—to meet daily needs, evolving into various forms of competition and entertainment (Smith, 2010). Modern forms of sport such as soccer, tennis, and weightlifting require specialized equipment and facilities that not only support athlete performance but also ensure safety and comfort during exercise (Bailey, 2006). However, sport serves more than just a means of physical fitness; it also plays a vital role in character development and social skills. Regular participation in sports activities can improve teamwork, discipline, and stress management (Eime et al., 2013). Furthermore, collective sports activities such as soccer or basketball provide opportunities for students to build social networks and strengthen a sense of community, which in turn supports mental health and reduces feelings of isolation (Spaaij, 2012).

The development of sports from a mere lifestyle activity to a global industry has influenced how educational institutions design fitness support facilities. According to UNESCO (2015), adequate sports facilities include training rooms, fitness equipment, and safe playing areas, which collectively support active participation and social well-being. In the context of higher education, the availability of these facilities not only reinforces a healthy lifestyle but also increases student academic productivity (Brown & Green, 2019). According to Bauman et al. (2018), campuses that provide easy access to sports facilities—including 24-hour gyms, multi-purpose fields, and running tracks—record higher student participation rates compared to campuses with inadequate infrastructure. This gap in facilities affects not only the frequency of exercise but also students' perceptions of the importance of an active lifestyle in supporting academic achievement.

In the context of ITB Jatinangor, the condition of sports infrastructure is still underdeveloped. Although there are soccer fields and running tracks, the design and maintenance of these facilities often do not meet user comfort standards. Furthermore, the lack of an integrated fitness center on the Jatinangor campus, like the Ganesha campus, which is equipped with the "Saraga" fitness center, which includes a gym, field, running track, and swimming pool, forces Jatinangor students to travel long distances to access the gym or pool. This disparity can reduce students' motivation to exercise regularly, even though consistency is proven to be effective in improving long-term physical and mental endurance (Warburton, Nicol, & Bredin, 2006). Against this backdrop, this study will comprehensively examine the extent to which sports facilities at ITB Jatinangor meet the real needs and expectations of students. Through quantitative analysis of frequency of use and satisfaction levels, as well as qualitative insights into suggestions for improvement, this study aims to formulate recommendations that can serve as a reference for the campus in developing a more inclusive and sustainable sports infrastructure.

METHODS

This research is a quantitative descriptive study. Descriptive research aims to describe existing conditions without the researcher controlling the influencing variables and parameters. Descriptive research can also be considered an attempt to determine, describe, or identify what is, while analytical research seeks to establish why things are as they are or how they came to be (Ethrige, 2004). The purpose of this study is to describe the needs of ideal student sports facilities at the ITB Jatinangor campus and the actual condition of sports facilities at the ITB Jatinangor campus to identify gaps in conditions and provide applicable solutions and suggestions.

The data collection method used in this study was a survey. Surveys aim to systematically collect quantitative data from a population. The instrument used for this survey method was an online questionnaire in the form of a Google Form, due to its ease of distribution, low cost, and rapid data collection.

The population in this study were active students at the Bandung Institute of Technology (ITB) who undertake lectures and activities on the Jatinangor campus. The research instrument used was a questionnaire in the form of a Google Form distributed through social media. The questionnaire distributed contained 4 questions that aimed to describe the conditions and perspectives of ITB Jatinangor Campus students regarding the quality of available sports facilities in general.

Table 1. Questionnaire

No.	Description
1	How often do you use the sports facilities at ITB's Jatinangor campus?
2	Are there any facilities you use frequently?
3	Are the sports facilities at ITB's Jatinangor campus adequate?
4	Are there any sports facilities or facilities ITB would like to see introduced or provided on the Jatinangor campus?

The first question, which reads “How often do you use the sports facilities at ITB Jatinangor campus?”, is in the form of a linear scale of 1 to 5, with 1 being “Very Rarely” and 5 being “Very Often”. This question aims to assess the identity of respondents in the context of being users of ITB Jatinangor Campus sports facilities. The second question, which reads “Are there any particular facilities that are frequently used?”, is in the form of a short answer where respondents can freely fill in which sports facilities (if any) they use during their activities at ITB Jatinangor Campus. This question aims to assess which facilities are used effectively and which are still underused. The third question, which reads “Are the sports facilities at ITB Jatinangor campus Adequate?”, is in the form of a “True or False” question. This question is in the form of a “True or False” with the aim of getting a definite answer from respondents. This question aims to assess the effectiveness of the sports facilities provided at ITB Jatinangor Campus for its students. The fourth question, "Are there any sports facilities or infrastructure that ITB would like to see established or provided on the Jatinangor campus?", was a short-answer questionnaire that respondents could fill out freely. This question aimed to assess respondents' aspirations regarding the facilities they would like to see provided on the ITB Jatinangor campus.

RESULTS & DISCUSSIONS

Results

During the respondent response collection period, answers were collected from 44 respondents from various departments which can be seen as follows;

Table 2. Respondent

Departments	Number
Food Engineering	22
Bioenergy and Chemurgical Engineering	3
Information Technology System	1
Geodesy and Geomatics Engineering	1
Agricultural Engineering	2
Chemistry	1
Electrical Engineering	1
Information Technology Engineering	1
Astronomy	1
Industrial Engineering	2
Chemical Engineering	1
Environmental Engineering	1
Engineering Physics	1
Pharmaceutical Science and Technology	3
Mathematics	1
Petroleum Engineering	1
Electrical Power Engineering	1
Total	44

Most questionnaire respondents were Food Engineering students, with only 1-3 students from other majors.

Intensity of Campus Sports Facility Utilization

An analysis of the level of sports facility utilization on the ITB Jatinangor campus indicates that student utilization is still low to moderate. Based on data collected using a rating scale of 1 (very rarely) to 5 (very often), student activity is dominated by those who rarely and quite often use the available facilities. This is evidenced by the unequal percentages, with the "rarely use" rating (scale 2) absolutely dominating at 48%, followed by the "quite often" rating (scale 3) at 25%. Furthermore, students who actively utilize these facilities are a minority, with only 7% achieving the "very often use" rating (scale 5). This data indicates the need for an in-depth evaluation of the external drivers contributing to low student sports participation on campus.

Unequal Distribution of Sports Facility Utilization

Further analysis of facility preferences revealed striking inequalities in the distribution of sports facility utilization among students. Public and accessible outdoor facilities, such as the sidewalks around the lake and the running track, were the two most frequently used areas, with 10 and 9 choices, respectively. This contrasted sharply with indoor sports facilities, where the Futsal Sports Hall (GOR) was the least frequently accessed by students. This polarization highlights the unequal distribution of facilities, with casual recreation areas being preferred over competitive sports facilities that require reservations or special equipment.

Public Perception of Facility Adequacy

Assessments regarding the adequacy and quality of sports facilities at ITB Jatinangor generated highly competitive opinion dynamics that tended to shift toward the negative. The evaluation of the adequacy of these facilities revealed very little difference of opinion among student respondents, but dissatisfaction remained the majority. Fifty-two percent of students stated that the current sports facilities provided by the campus were inadequate. This narrow

difference of two votes is a significant warning for university management, as it reflects expectations for meeting facility standards that are not aligned with the reality of the current sports infrastructure available on the ground.

Expectations for Future Facility Development and Needs

As a recommendation and follow-up to this dissatisfaction, the direction of student facility development expectations for the future has focused on the provision of modern fitness facilities. The need for a swimming pool ranked highest on the list, with 19 options, followed by a fitness center (gym) with 13 options. Conversely, demand for traditional sports fields was a minority and less significant cluster. This is evident in the low number of proposals for volleyball and badminton courts, each with only two options, and tennis courts, which ranked the lowest with one option. This demand data reflects a shift in student health lifestyle trends, which are now more focused on aquatic sports and personal weight training.

Discussions

The analysis of data obtained from the survey showed that most respondents (48%) who are ITB students rarely use the sports facilities at the ITB Jatinangor campus, and the second largest fraction (25%) only use the existing sports facilities fairly often. Only a small proportion (7%) frequently use the sports facilities at the ITB Jatinangor campus. This finding indicates that the utilization rate of existing facilities remains low, likely influenced by the limited quantity and quality of available infrastructure (Bauman et al., 2018).

Analysis of the responses to the second question showed that the most frequently used facilities were the sidewalk around the lake (29.4%) and the running track (26.4%), both of which are open facilities and do not require intensive management. This indicates that students tend to utilize facilities that are easily accessible and do not require special equipment or permits.

Other facilities, such as the futsal or table tennis sports halls, require permits, requiring planning before using them. This is supported by questionnaire responses, which indicate that facilities such as the futsal sports hall are among the least used. The lack of use of facilities such as the Sports Hall (GOR) also reinforces the finding that the lack of indoor or integrated facilities such as gyms and swimming pools is a factor in low student participation in campus sports (UNESCO, 2015; Brown & Green, 2019).

Analysis of responses to the third question showed that 52% of respondents stated that the sports facilities at ITB Jatinangor were inadequate, indicating significant dissatisfaction among students. According to Warburton, Nicol, & Bredin (2006), regular participation in sports not only improves physical health but also mental resilience and academic achievement. Therefore, this gap impacts student motivation to exercise regularly.

Analysis of responses to the fourth question illustrates students' expectations for future facility development. The most desired facilities were a swimming pool (19 respondents) and a gym (13 respondents), indicating a high demand for a modern and integrated fitness center. Furthermore, there was a desire for volleyball, badminton, and tennis courts, albeit in smaller numbers. This expectation aligns with UNESCO's (2015) recommendation that comprehensive sports infrastructure, including training rooms, fitness facilities, and play areas, is necessary to foster inclusive participation in educational settings.

Based on the data obtained, it was found that most respondents, who are ITB students, felt that the sports facilities at the ITB Jatinangor campus were inadequate. This is due to the disparity between the sports facilities at the ITB Ganesha campus and those at the ITB Jatinangor campus, for example, the swimming pool and volleyball court facilities. These limitations not only result in low frequency of use but also risk reducing students' overall quality of life.

Therefore, universities need to consider developing integrated sports facilities, such as gyms and swimming pools, as well as improving existing facilities to make them more user-friendly, safe, and supportive of various types of physical activity. Furthermore, investing in sports infrastructure will not only promote a healthy lifestyle but also strengthen students' social well-being, campus engagement, and academic achievement (Eime et al., 2013; Spaaij, 2012).

CONCLUSION

Based on the results of the survey data analysis, it can be concluded that the utilization rate of sports facilities at ITB Jatinangor Campus is still low, primarily due to the limited number, quality, and accessibility of available facilities. Students tend to use outdoor facilities that are easily accessible without permits, such as sidewalks and running tracks, more often than indoor facilities that require more complex usage procedures. This is reinforced by the finding that more than half of respondents stated that existing sports facilities are inadequate and expressed the hope for the construction of more modern and inclusive facilities such as swimming pools and gyms. As a recommended step, the campus is advised to develop sports infrastructure that is more integrated, equitable, and tailored to students' actual needs. Procuring additional sports facilities, simplifying access, and regular maintenance of existing facilities can increase students' active participation in physical activity. Such investments will not only encourage a healthy lifestyle but also contribute to improving students' psychosocial well-being and overall academic achievement. Therefore, the results of this study can serve as a strategic basis for policymaking in developing an inclusive and sustainable campus sports infrastructure.

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