

Mapping The Potential of Sports Faculties in Indonesia

Wisnu Nugroho¹, Rizki Mulyawan¹, Nawan Primasoni¹, Muhammad Irvan Eva Salafi¹, Risti Nurfadhila¹, Sholeh Hafidz², Rekyan Woro Mulaksito Mulyadi³

¹ Faculty of Sport Science, Universitas Negeri Yogyakarta, Jl. Colombo No. 1, Karangmalang, Depok, Sleman, Daerah Istimewa Yogyakarta, Indonesia.

² Faculty of Economics and Business, Universitas Negeri Yogyakarta, Jl. Colombo No. 1, Karangmalang, Depok, Sleman, Daerah Istimewa Yogyakarta, Indonesia.

³ Faculty of Vocational Studies, Universitas Negeri Yogyakarta, Jl. Colombo No. 1, Karangmalang, Depok, Sleman, Daerah Istimewa Yogyakarta, Indonesia.

*Corresponding Author. Email: wisnu.nugroho@uny.ac.id

Abstract

So far there has been no study that has carried out mapping of study programs, facilities and infrastructure including laboratories and health services offered to the community. Judging from the literature review at all Sports Faculties in Indonesia, the aim of this research is to map the potential of sports faculties throughout Indonesia through study programs, laboratories and service facilities so that the potential of sports faculties is known. This research method involves collecting data from libraries and exploring research objects using various sources of library information, such as books, encyclopaedias, scientific journals, newspapers, magazines, and digital documents. The sample for this literature study consisted of 15 campuses that have sports faculties. Universitas Negeri Yogyakarta has the greatest number of sports study programmes among all campuses. UNM offers a sports faculty provided with appropriate and diverse related laboratories. There are five campuses, namely UPI, UNJA, UNIMA, UNDIKSHA, and UNCEN, which provide limited information about their laboratories. Currently, only UNESA, UM, and UNY have virtually identical quantitative measures. Surabaya and Yogyakarta State Universities own the majority of service facilities, while other sports campuses require new facilities to produce financial resources for universities and provide services to the public and academic community. Collaboration among sports institutions in Indonesia is necessary to cultivate proficient sports graduates across different locations. In addition to fostering healthy rivalry among sports faculties to promote their development, each campus should also seek suitable benchmarks based on their unique qualities, ensuring that each sports faculty have distinct advantages. There is a hope to establish sports universities in Indonesia as part of long-term planning.

Keywords: Mapping, Potential, Sports Facilities across Indonesia

INTRODUCTOIN

Sports faculties can exist due to the presence of various departments. The department comprises several study programs with common knowledge and is responsible for developing and managing study programs. Departments of the sports faculty that are currently developing include sports coaching education, physical education, health and recreation, physical education school teachers, and sports science. The development of sports faculties and study programs is constantly changing along with the demands of the job market, technological developments, and dynamics in the sports court. Some recent trends and developments may impact sports studies faculties and their programs. The development of the sports faculty towards an interdisciplinary approach is applied by integrating sciences such as sports medicine, psychology, nutrition, and sports technology. Then, it focuses on developing and applying

advanced technologies in performance analysis, athlete health monitoring, and sports training. The special study programs are held in electronic sports (e-sports), sports management, paralympic sports, and extreme sports, and they are in line with market trends and demand. Increased use of information technology to support distance learning and hybrid learning models that combine online and face-to-face learning experiences (Sciarappa et al., 2016; Yudaparmita et al., 2023; Yulianti et al., 2022). Increased attention to health and fitness is achieved by integrating the concepts of nutrition, injury recovery, and fitness training into the curriculum (Araç Ilgar & Cihan, 2018).

Multidisciplinary implementation is not the main thing. There are still other aspects that need to be developed by universities and sports faculties related to student interest in choosing the destination sports campus, one of which is the facilities and infrastructure owned by that campus (Agarwal & Arora, 2020). Facilities and infrastructure are significant in supporting the educational level. Some examples of campus infrastructure related to sports are the sports building, basketball court, tennis court, soccer/futsal court, volleyball court, swimming pool, softball and baseball court, athletic court, and other facilities. Sports facilities on campus are used according to the time and needs of higher education, which aims to achieve a comprehensive learning process for the learning achievement of sports education students. A lecturer and student have the right to use the sports facilities on campus so that the sports teaching and learning process can run smoothly. If the number of students is smaller than the other, the sports court facilities required will be smaller and vice versa. Ideal sports facilities are determined according to the standard number of students on campus who comply with the SOPs for use (Mulyani, 2020). Facilities equipped with advanced technology help improve the performance of athletes. It becomes difficult for athletes if the infrastructure and facilities where they train are not good or not supportive. It not only demotivates or lowers their morale but also decreases their performance. The lack of adequate facilities can also cause injuries because poor court conditions can cause injuries to participants. Several supporting sports-related facilities and infrastructure include play areas, equipment, changing rooms, first aid facilities, lockers, and other facilities (Agarwal & Arora, 2020).

Sports faculties in Indonesia have various characteristics that reflect the related country's social, cultural, and infrastructure conditions. Although several faculties have experienced positive progress by establishing modern facilities, such as sports courts and fitness centers, challenges must be overcome, especially regarding limited funds and infrastructure. Limited funding and infrastructure can impact the quality of teaching and development of sporting talent at the college level, as equipment and facilities may not be fully state-of-the-art (Mulyani, 2020). On the other hand, some areas can be maximized, namely the open spaces owned by the campus. Open space is a public place where people carry out routine and functional activities that bind a community, both in the normal routine of daily life and in periodic celebrations. The correlation between public spaces and societal sports activities is reciprocal and mutually reinforcing. It means adequate public space can motivate people to engage in sports activities. On the other hand, the community's strong enthusiasm and initiative for sports activities will give rise to creativity in using open space (Achmad Bajuri et al., 2018).

Previous research mentioned how students perceive their facilities (Lumingkewas & __, 2022), which was carried out at one of the campuses in the Minahasa area. The study's results openly stated that most students were not satisfied with the sports facilities owned by the campus but were not too disappointed, and the majority agreed that there was a need to renovate the sports facilities on the campus. The consideration of the results of this study can be used as an example that regulators and those responsible parties for facilities and infrastructure must be aware of the renewal of facilities and infrastructure. So, the satisfaction with the services provided by the campus can be further increased. Another study conducted in Yogyakarta, which has facilities deemed capable of investigating the performance of the facilities it has, stated that the implementation of management functions is hampered by limited personnel, as well as restrictions on service hours. These difficulties include difficulties in distributing employee work schedules, completing work that cannot be done online, delays in conveying information, education regarding health protocols, and difficulties related to funding (Nasrulloh et al., 2022). The solution offered includes arranging staff for jobs that suit their expertise, creating work schedules, maintaining good service to users, and managing facilities following health protocols and government regulations. Recommendations regarding this matter are the effective and efficient use of sports facilities and infrastructure, program evaluation, preparation of programs and strategies that can attract clients, then promotion and publication, as well as the creation of an Android-based integrated

service system so that it is expected that it can improve community welfare and increase income. These recommendations were made based on problems that occurred around campus facilities. It can be concluded that even though it has international and national standards facilities, shortcomings still arise from an operational perspective. However, more specific investigations about the service processes at other sports campuses are still unknown.

So far, no study has attempted to map study programs, facilities, and infrastructure, including laboratories and health and sports services offered to the community, judging from a literature review in all Higher Education and Sports. There are only studies that explain the implementation of hybrid classes (Yulianti et al., 2022), utilization of open space and sports infrastructure (Bajuri et al., 2018), facility management evaluation (Nasrulloh et al., 2022), and perceptions of facility services (Lumingkewas & _, 2022). Therefore, no study has mapped every sports faculty's potential in Indonesia.

This research was conducted to analyze the mapping method of the potential of sports faculties in Indonesia. This research was included in qualitative research and the library research category. The research used theoretical studies to collect information and data with the help of various kinds of information in mapping the potential of sports faculties throughout Indonesia so that the potential of sports faculties was known.

METHODS

This type of research was library research, a series of research relating to library data collection methods or research whose research objects were explored through various library information (books, encyclopedias, scientific journals, newspapers, magazines, and documents). Literary research examines or critically reviews the knowledge, ideas, or findings contained in the body of academic-oriented literature and formulates theoretical and methodological contributions of specific topics. Library research focuses on finding various theories, laws, postulates, principles, or ideas used to analyze and solve formulated research questions. The nature of this research was descriptive analysis, namely the regular analysis of the data obtained, and then understanding and explanation are provided so that the reader can well understand it.

The sample of sports faculties involved in this literature study was 15 campuses, including UNY, UNJ, UPI, UNS, UNNES, UM, UNESA, UNJA, UNP, UNIMED, UNM, UNIMA, UNG, UNDIKSH and UNCEN. The main inclusion criteria are campuses with a sports faculty and are included in the Higher Teacher Education Institutions (LPTK) group. The data used in this research was secondary data. Data was obtained not from direct observation but from previous research results, and it was also monitored from the digital website of each university or faculty. The secondary data sources referred to books and primary or original scientific reports in articles or journals (printed and/or non-printed) regarding Mapping the Potential of Sports Faculties throughout Indonesia.

RESULT AND DISCUSSION

The digital literature review aims to investigate informatively based on the faculty or university website. The observation data was then analyzed per each faculty and university. The role of websites is crucial for the sustainability of study programs, faculties, and universities so that data references are based on the ease of information obtained. In Table 1, we show the distribution of study programs at each university within the scope of higher education institutions.

Table 1. Study programs owned by each university that has a sports faculty

NO	STUDY PROGRAM	UNJ (1)	UPI (2)	UNS (3)	UN NES (4)	UNY (5)	UM (6)	UNESA (7)	UNJA (8)	UNP (9)	UNIMED (10)	UNM (11)	UNIMA (12)	UNG (13)	UNDIKSHA (14)	UNCEN (15)
1	Bachelor's Degree in Sports Coaching Education															
2	Bachelor's Degree in Physical Education, Health and Recreation															
3	Bachelor's Degree in Elementary School Health and Recreation Education															
4	Bachelor of Sports Science															
5	Masters in Sports Coaching Education															
6	Masters in Physical Education, Health and Recreation															
7	Masters in Physical Education, Health and Recreation in Primary Schools															
8	Masters in Sports Science															
9	S-3 Sports Coaching Education															
10	Doctoral Degree in Physical Education, Health and Recreation															
11	Doctoral Degree in Physical Education, Health and Recreation in Primary Schools															
12	Ph.D. in Sports Science															
13	Bachelor's Degree in Sports Coaching															
14	S-1 Recreational Sports															
15	Bachelor's Degree in Sports Physical Training															
16	Bachelor of Public Health Sciences															
17	Bachelor of Physiotherapy															
18	Bachelor of Health Administration															
19	Bachelor's Degree in Nutrition															
20	Bachelor's Degree in Nursing															

Information :

	There is
	There are not any

In Table 2, we show the distribution of laboratories owned by sports faculties within the scope of higher education institutions. We show at the table that Malang State University has a sports faculty with appropriate and varied supporting laboratories. Five campuses have minimal information regarding their laboratories, namely UPI, UNJA, UNIMA, UNDIKSHA, and UNCEN. So far, only UNESA, UM, and UNY have similar quantitative values.

Table 2. Laboratories owned by universities that have sports faculties

NO	LABORATORY	UNJ (1)	UPI (2)	UNS (3)	UNNES (4)	UNY (5)	UM (6)	UNESA (7)	UNJA (8)	UNP (9)	UNIMED (10)	UNM (11)	UNIMA (12)	UNG (13)	UNDIKSHA (14)	UNCEN (15)
1	Physiology Lab															
2	Anatomy Lab															
3	Physical Therapy Lab															
4	Adaptive Labs															
5	Biomechanics Lab															
6	Aquatic Lab															
7	Sports Science Lab															
8	Test & Measurement Lab															
9	Biomedical Lab															
10	Experimental Animal Lab															
11	Functional Training Lab															
12	Nutrition Lab															
13	Sports Rehabilitation Lab															
14	Sports Massage Lab															
15	K3-KESPRO Lab															
16	Micro Teaching Lab															
17	Equestrian Lab															
18	Sports Psychology Lab															
19	Fio Lab															
20	Pencaksilat Lab															

Information:

	There is
	There is not any
	Unknown

Table 3 shows a distribution of service facilities owned by sports faculties within the scope of higher education institutions. We show at the table that Malang State University has a sports faculty with appropriate and varied supporting laboratories. Five campuses have minimal information regarding their laboratories, namely UNJ, UPI, UNNES, UNY, UM, and UNESA, which still dominate the number of sports and health facilities they have. Several campuses, such as UNS, UNIMED, UNM, and UNDIKSHA, also follow it.

Table 3. Service facilities owned by universities that have sports faculties

NO	FACILITY	UNJ (1)	UPI (2)	UNS (3)	UNNES (4)	UNY (5)	UM (6)	UNESA (7)	UNJA (8)	UNP (9)	UNIMED (10)	UNM (11)	UNIMA (12)	UNG (13)	UNDIKSHA (14)	UNCEN (15)
1	Therapy Room															
2	Fitness Room (Gym)															
3	Sports Physiology Room															
4	GOR															

NO	FACILITY	UNJ (1)	UPI (2)	UNS (3)	UN NES (4)	UNY (5)	UM (6)	UNE SA (7)	UNJA (8)	UNP (9)	UNI MED (10)	UNM (11)	UNI MA (12)	UNG (13)	UNDIK SHA (14)	UN CEN (15)
5	Softball court															
6	Hockey court															
7	Football court															
8	Tennis court															
9	Basketball court															
10	Volleyball court															
11	Takraw court															
12	Beach Volleyball Court															
13	Futsal court															
14	Petanque court															
15	Archery Range															
16	Football Stadium & Athletic Track															
17	Swimming pool															
18	Gymnastics Hall															
19	Martial Hall															
20	Table Tennis Hall															
21	Student dormitory															
22	Community Sports Park															
23	Gazebo															
24	Badminton Court Building															
25	Martial Arts court															
26	Hall															
27	Indoor court															
28	Psychology Room															
29	Changing room															
30	Multipurpose room															
31	Weight Training Room															
32	Rock Climbing Area															
33	Basketball Hall															
34	Golf and Driving Range															
35	Equestrian court															
36	Sauna Room															
37	Bidikmisi Dormitory															

Information:

	There is
	There is not any

In creating a new study program, several considerations must first be resolved. Prospective students still consider institutional academic productivity an influential factor in selecting scholarships (Mayfield et al., 2021). Many programs focus on recruiting new doctoral graduates abroad, especially

sports faculties, to recruit established faculty members, which has been investigated for a long time (Mahony et al., 2006). On the other hand, whether a study program is good or not does not depend on the number of lecturers in it. Interestingly, the number of colleagues or lecturers does not significantly influence the quality or quantity of research productivity at leading institutions (Mayfield et al., 2021). Currently, the development of sports faculties in Indonesia is starting to develop. Several pioneer campuses in Indonesia have started emerging with new study programs in the courts of sports and health, specifically higher education institutions, with unique values. However, the first problem was the emergence of various sports and health study programs, which were about filling the need for job vacancies for graduates. With such a significant disparity between supply and demand, there are legitimate concerns regarding the quantity and quality of applicants for faculty positions in sports management (Mahony et al., 2006). It has become a significant focus in developed countries because it is the initial cause of unemployment and jobs that do not match the profile of campus graduates. Critical contact theory states that prospective lecturers cannot compare institutions based on objective and subjective factors for various reasons, including lack of time and experience (Mahony et al., 2006). Therefore, applicants make decisions based on interactions with the recruiter and through the information the individual provides about the job (Young et al., 1989). This old recruitment phenomenon still exists and is difficult to change through an objective perspective based on quality.

Laboratories are one of the supporting factors for the work productivity of academics and students. This intensive engagement supports students completing theses and dissertations and new students in non-formal learning programs, all focused on experimental assignments, project-based learning, and mentoring and coaching approaches (Restivo et al., 2019), at the same time while maintaining high-quality standards for students. It will be closely related to real educational outcomes based on using laboratories. The study in Yogyakarta aims to reveal the effectiveness of utilization and determine the direction of development of performance laboratories and physical conditions at the Faculty of Sports and Health Sciences, consisting of the level of use and completeness of laboratory infrastructure, laboratory management skills, managerial abilities, individual abilities, and student attitudes towards the direction of laboratory development. The qualitative data collection method used is the data triangulation method, which consists of 1) Focus Group Discussion (FGD) for students (6 people/group) and 2) Non-participant observation in the laboratory. Students find the existence of performance laboratories and physical conditions very useful in lectures, training, and research (Dwihandaka & Sumarjo, 2020). The evaluation results stated that increasing the use of laboratory facilities and performance and physical conditions emphasized their use, management, and maintenance. Laboratory performance needs to be improved, and laboratory physical conditions need to be improved. The development of performance laboratory performance and physical conditions is directed at the maintenance and construction of more extensive and integrated buildings. Few similar research results are related to using laboratory facilities in Indonesia. The laboratory also engages in informal learning initiatives and supports routine research and development activities of research groups (Restivo et al., 2019).

Other supporting facilities for learning are sports facilities and infrastructure such as stadiums, sports arenas, halls, sports courts, indoor sports halls, and other facilities. All facilities and infrastructure are determinants for students when choosing their target campus, regardless of proximity to their domicile. One study shows that there are negative aspects of the relationship between the curriculum and the infrastructure owned by the faculty, such as the scarcity of applied classes, inadequate sports facilities, lack of sectoral collaboration, and inefficient sports management applications, which causes students to feel inadequate to complete learning (Araç Ilgar & Cihan, 2018). These findings are expected to help all components of the sports faculty improve the preparation and organization of the sports curriculum. The development of study programs should go hand in hand with the need for laboratories and sports facilities. The presence of a university specifically for sports needs to be realized to encourage the progress of sports in Indonesia. Faculties that have complete sports study programs and are supported by adequate and standard facilities can be developed into sports universities so that they can focus on developing sports science and supporting various sports professions. Stakeholders need to realize that apart from generating income, which is an achievement, stakeholders also need to think about providing laboratories and facilities so that students feel satisfaction with high levels of facilities and infrastructure services, not only in quantity but also in improving the quality of learning. On the other hand, with

complete laboratories and infrastructure, lecturers will have more freedom to develop their respective areas of expertise, which is expected to produce international-quality publication output.

Study programs, laboratories, and sports facilities are a single unit that gives rise to stakeholder perceptions about service satisfaction (Araç Ilgar & Cihan, 2018; Mahony et al., 2006; Mayfield et al., 2021; Restivo et al., 2019). Study programs must provide freedom or flexibility for the community to work in teaching, research, and service, specifically the *tri-dharma* of higher education in Indonesia. Consistency in facility maintenance is the main potential for producing optimal service (Dwihandaka & Sumarjo, 2020). Continuous control to improve service quality is a long-term target in realizing an increase in the quantity and quality of higher education with a focus on sports expertise.

CONCLUSSION

Sports faculties in Indonesia must cooperate to create competent sports graduates in various regions, apart from the emergence of healthy competition between sports faculties to develop sports faculties. Each campus must also look for appropriate benchmarking for its characteristics so that each sports faculty has advantages. In long-term planning, it is expected that it will be able to create sports universities in Indonesia. UNY excels in developing various study programs related to sports, while UM can produce many qualified laboratories in quantity. Further research can lead to exploring the potential for sports development from various sectors, laboratories, and other infrastructures through benchmarking investigations of 100QS university rankings by subject in Asia, Europe, and America.

REFERENCES

- Achmad Bajuri, F., Furqon Hidayatullah, M., & Kristiyanto, A. (2018). Pemanfaatan Fasilitas Ruang Terbuka/Publik Sebagai Prasarana Olahraga. In *Prosiding Seminar Nasional IPTEK Olahraga* (Issue 1).
- Agarwal, M., & Arora, S. (2020). Sports facility management and higher education institutes. ~ 242 ~ *International Journal of Physiology*, 5(1).
- Araç Ilgar, E., & Cihan, B. B. (2018). A Phenomenological Analysis on Evaluation of Sports Management Department Curriculum by Sports Sciences Faculty Members. *Journal of Curriculum and Teaching*, 7(2), 139. <https://doi.org/10.5430/jct.v7n2p139>
- Bajuri, F. A., Hidayatullah, M. F., Kristiyanto, A., Keolahragaan, I., & Maret, U. S. (2018). Pemanfaatan Fasilitas Ruang Terbuka / Publik Sebagai Prasarana Olahraga. *Jurnal Nasional IPTEK Olahraga*.
- Dwihandaka, R., & Sumarjo, S. (2020). Keefektifan Pemanfaatan dan Arah Pengembangan Laboratorium Prestasi dan Kondisi Fisik FIK UNY. *Journal of Physical Activity and Sports (JPAS)*, 1(1), 124–132. <https://doi.org/10.53869/jpas.v1i1.27>
- Lumingkewas, C. F., & _ I. (2022). PERCEPTION OF STUDENTS ON UNIVERSITY SPORTS FACILITIES - MADE IN FACING EDUCATIONAL SERVICE COMPETITION (A study at the Universitas Klabat Airmadidi, North Minahasa). *Abstract Proceedings International Scholars Conference*, 7(1). <https://doi.org/10.35974/isc.v7i1.1218>
- Mahony, D. F., Mondello, M., Hums, M. A., & Judd, M. (2006). Recruiting and retaining sport management faculty: Factors affecting job choice. *Journal of Sport Management*, 20(3). <https://doi.org/10.1123/jsm.20.3.414>
- Mayfield, C. K., Bolia, I. K., Ihn, H., Haratian, A., Hasan, L. K., Hatch, G. F., Petrigliano, F. A., & Weber, A. E. (2021). Evaluation of Sports Medicine Fellowships in the United States Based on Academic Productivity. *Journal of the American Academy of Orthopaedic Surgeons Global Research and Reviews*, 5(10). <https://doi.org/10.5435/JAAOSGlobal-D-21-00165>
- Muliyani, S. E. (2020). Analisis Kepuasan Mahasiswa Pendidikan Olahraga Ditinjau Dari Fasilitas Olahraga. *JISIP (Jurnal Ilmu Sosial Dan Pendidikan)*, 4(4). <https://doi.org/10.36312/jisip.v4i4.1548>
- Nasrulloh, A., Sumaryanto, S., Sumarjo, S., & Nugroho, S. (2022). Evaluation Study: Functions of Management of Sports Facilities During the COVID-19 Pandemic. *Proceedings of the Conference on Interdisciplinary Approach in Sports in conjunction with the 4th Yogyakarta International*

- Seminar on Health, Physical Education, and Sport Science (COIS-YISHPESS 2021)*, 43. <https://doi.org/10.2991/ahsr.k.220106.001>
- Restivo, M. T., de Fátima Chouzal, M., Abreu, P., & Zvacek, S. (2019). The Role of an Experimental Laboratory in Engineering Education. *Advances in Intelligent Systems and Computing*, 917, 644–652. https://doi.org/10.1007/978-3-030-11935-5_61
- Sciarappa, W. J., Quinn, V., & Ward, D. L. (2016). Comparing conventional, hybrid, and distance learning courses in horticulture. *HortTechnology*, 26(5), 677–682. <https://doi.org/10.21273/HORTTECH03377-16>
- Young, I. P., Rinehart, J. S., & Place, A. W. (1989). Theories for teacher selection: Objective, subjective, and critical contact. *Teaching and Teacher Education*, 5(4). [https://doi.org/10.1016/0742-051X\(89\)90030-9](https://doi.org/10.1016/0742-051X(89)90030-9)
- Yudaparmita, G. N. A., Kanca, I. N., Sudiana, I. K., & Dharmadi, M. A. (2023). Hybrid Learning on Pencak Silat Sport in Higher Education: Students' Perception and Issues. *Journal of Higher Education Theory and Practice*, 23(1), 9–22. <https://doi.org/10.33423/jhetp.v23i1.5781>
- Yulianti, M., Apriani, L., & Makorohim, M. F. (2022). Evaluation of Learning in Hybrid Learning in Sports Physiology Course. *JUARA: Jurnal Olahraga*, 7(3), 763–773. <https://doi.org/10.33222/juara.v7i3.2432>