



Availability of Sports Open Spaces in Tawangharjo District, Grobogan Regency: A Sport Development Index Perspective

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Abstract

The number of open spaces and the population aged seven years and above are known to determine the ratio of open spaces to the Sports Development Index. This study used a survey method with a quantitative descriptive approach, using sports open spaces as research variables. The sampling technique was based on the Sports Development Index (SDI), namely the Multistage Random Sampling. The population of this study was residents of Tawangharjo Village, Tarub Village, and Godan Village. The availability of open sports spaces in the Tawangharjo sub-district, represented by 3 villages, namely Tawangharjo, Tarub, and Godan, is in a low category. The solution is to improve sports development in the open space aspect, namely by involving the government to improve the welfare of the people, such as by providing the most superior sports facilities in the region, including football, volleyball, martial arts, and jogging tracks. The role of the community can help develop sports development, such as cooperation in cleaning abandoned sports open spaces.

Keywords: Facilities; open space; sports development index

1. Introduction

Sports development is a process that gives many people access to physical activity. The government must make policies regarding the development and improvement of the quality and quantity of sports infrastructure and carry out program planning for sports development (Setiawan & Faza, 2019). Everyone can use sports facilities to develop physically, mentally, spiritually, and socially. Rahayu et al. (2022) mentioned that increasing physical activity requires self-regulation abilities. Facilities are the infrastructures needed to carry out and expedite an activity. The more facilities or more complete sports facilities an institution has, the more likely it is that athletes or individuals wish to develop their talents. Thus, a sports activity is influenced by the availability of athletes. Furthermore, it is also influenced by the availability of sports facilities (Ningsih et al., 2019).

Therefore, for sports development to be in line with national development goals and improve people's welfare, it must be improved and developed in a directed, structured, and sustainable manner, rewarding sports and improving the national sports management system in the context of developing educational sports, recreational sports, and sports performance. To create a social environment conducive to sports culture, open spaces for sports must be available. Based on research results by Dwijayani (2019), aerobic activities require quality infrastructure from the local government or other

organizations. The government helps develop sports education, achievement, and recreation. One of the government's responsibilities in advancing sports for a culture of healthy living and making society healthier is the provision of public open spaces, sports infrastructure, and other supports. While physical education sports can help students develop the desired character, including courage, a strong sense of faith, the desire to work hard, the ability to maintain self-control, cooperation, fairness, and knowledge, physical education practices and lessons in schools teach students to engage in physical activity in a variety of ways that are useful for achieving sport achievement goals, including speed and flexibility. Physical education is essential to children's overall development, which is crucial for achieving sporting success (Iyakrus, 2019).

With these pillars, it feels unfair if sporting success is only determined by the number of medals won. A fundamental ideology known as the "spirit of Olympism," whose main teaching is respect for human values (celebration of humanity), is far more important than measuring success through medals. Mutohir and Maksum (2007) mentioned that with such basic principles, one must give up primitive-destructive behavior, such as using doping to win medals, using any means necessary to win, fighting for fame, and sacrificing certain athletes for their performances. To ensure that sport can gradually benefit national development, the Ministry of Youth and Sports as well as Ministry of Education must work as effectively as possible to develop sports, especially educational sports (Ramadhan et al., 2020). In sports, the success of the management of a sports organization is an activity that generates a lot of thoughts and ideas in a community and carries them out in an orderly and systematic manner to achieve goals for maximum sports achievement (Prasetyo et al., 2018).

The concept of the Sport Development Index embodies the idea of measuring development progress. Mutohir and Maksum (2007) and their colleagues explored various indicators of sports development. The HR analysis shows four important indicators: open space, participation, human resources, and fitness. The open space aspect is one of the authors' interests in conducting the present research. According to Mutohir and Maksum (2007), an open space is a building and/or land provided by many people (the community) for sports activities. Facilities and areas can be public or other sports fields, either closed (inside) or open (outside) or fields that have been provided for sports activity areas.

Sports is a biological or physical activity that affects a person's personality and behavior. Sports-related physical activity includes using the whole body while adhering to conditions, skills, and abilities. Sport is defined as physical exercise that is repeated, planned, and structured to improve physical fitness (Wardiyanto & Kurniawan, 2022). According to Sunarno (2016), sports and walking recreation are interrelated with health and fitness and get two benefits simultaneously, namely greater visitor enjoyment and fitness for exercisers. Physical exercise must be carried out gradually and in the form of sports to achieve an ideal physical condition (Satrio & Winarno, 2019).

The researchers are interested in studying open sports spaces in Grobogan Regency, Central Java. The capital city of Grobogan Regency is Purwodadi, and there are 280 villages (*kelurahan*) spread over 19 (nineteen) sub-districts. With a total area of 2023.84 km², Grobogan Regency is the second-largest district in Jawa Tengah after Cilacap Regency (Khariri & Nur, 2022). Sports facilities and infrastructure are everything, including buildings, fields, and equipment needed to carry out sports activities (Akbar, 2021). Sports achievements are developed using sports infrastructure (Marsudi et al., 2024). Sports achievements will develop more easily if adequate facilities and infrastructure are available (Suratmin et al., 2022).

Based on the results of observations and the background of the problem, the formulation of the problem in this study is: What is the total number of open spaces and the number of residents aged seven years and above to calculate the ratio of sports open spaces in Tawangharjo District, Kabupaten Grobogan, in terms of the Sport Development Index? This study aims to determine the total number

of open spaces and the number of residents aged seven years and above by calculating the ratio of sports open spaces in Tawangharjo District, Kabupaten Grobogan.

The government's role in fostering and developing sports is written in the Government Regulation of the Republic of Indonesia No. 16 of 2007 concerning the implementation of sports, namely that the government and regional governments oversee sports activities funding, training initiations, and mentoring programs. Furthermore, they are also responsible for providing sports facilities and infrastructures as well as providing awards, including coaching and athlete training to athlete organizations and the athletes themselves. Meanwhile, the community plays a role in supporting the coaching and development of sports through a variety of active sports activities, both with the help of the central government and local governments or their own free will (Undang Undang Republik Indonesia, 2013).

Therefore, in order for sports development to be in line with national development goals and improve people's welfare, it must be improved and developed in a directed, structured, and sustainable manner, rewarding sports and improving the national sports management system in the context of developing educational sports, recreational sports, and sports performance. Aiming to create a social environment that is conducive to sports culture, open spaces for sports must be available. Based on research results (Dwijayani, 2019) Aerobic activities require quality infrastructure from the local government or other organizations. The government helps in the development of sports education, achievement, and recreation. One of the government's responsibilities in advancing sports for a culture of healthy living and making society healthier is the provision of public open spaces, sports infrastructure, and other supports. While physical education sports can help students develop the desired character, including courage, a strong sense of faith, the desire to work hard, the ability to maintain self-control, cooperation, fairness, and knowledge, Physical education practices and lessons in schools teach students to engage in physical activity in a variety of ways that are useful for achieving sport achievement goals, including speed and flexibility. Physical education plays a role and has a responsibility in the overall development of the child by encouraging physical exercise, which is very important for achieving sporting success (Iyakrus, 2019).

With these pillars, it feels unfair if sporting success is only determined by the number of medals won. A fundamental ideology known as the "spirit of olympism", whose main teaching is respect for human values (celebration of humanity), is far more important than simply measuring success in the form of medals. According to Mutohir & Maksum (2007) said that with such basic principles, one must give up primitive-destructive behavior, such as using doping to win medals, using any means necessary to win, fighting for fame, and sacrificing certain athletes for their performances. To ensure that sport can gradually benefit national development, the government's Youth and Sports Office and the Education Office must work as effectively as possible to develop sports, especially educational sports (Ramadhan et al., 2020). In sports, the success of the management of a sports organization is an activity that generates a lot of thoughts and ideas in a community and carries them out in an orderly and systematic manner to achieve goals for maximum sports achievement (Prasetyo et al., 2018).

The idea of measuring development progress is embodied in the concept of the Sport Development Index. This research was conducted by Mutohir & Maksum (2007), and their colleagues to explore various indicators of sports development. Based on the HR analysis, there are four important indicators: open space, participation, human resources, and fitness. The open space aspect is one of the authors' interests in conducting research. According to (Mutohir & Maksum, 2007), open space is a building and/or land provided by many people (the community) for sports activities. Facilities and areas can be in the form of public or other sports fields, either closed (inside) or open (outside), or in the form of fields that have been provided for sports activity areas.

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Based on the results of observations and the background of the problem, the formulation of the problem in this study is: what is the total number of open spaces and the number of residents aged 7 years and over to calculate the ratio of sports open spaces in Tawangharjo District, Kabupaten Grobogan, in terms of the Sport Development Index? This study aims to determine the total number of open spaces and the number of residents aged 7 years and over by calculating the ratio of open sports spaces in Tawangharjo District, Kabupaten Grobogan.

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2. Method

The research method used by the author is a survey method with a quantitative descriptive approach. In accordance with the focus of this research, it examines the sports open space index in the Tawangharjo District, Grobogan Regency, Central Java. The research variable used is sports open space. The population used in this study were residents of Tawangharjo District, which included three villages, namely Tawangharjo Village, Tarub Village, and Godan Village. While the samples used were residents aged 7 and over in Tawangharjo Village, Tarub Village, and Godan Village, The sampling technique was taken from 10 villages to 3 villages in Tawangharjo District, namely Tawangharjo Village, Tarub Village, and Godan Village. The sampling technique was based on the Sport Development Index (Mutohir & Maksum, 2007).

This method uses a multistage random sampling method. This method is a combination of cluster sampling and stratified random sampling. The multistage random sampling method is to randomly select three villages in the Tawangharjo District, namely Tawangharjo, Tarub, and Godan. The sources of data used are primary and secondary data. Primary data sources are data sources that directly provide data for data collection; secondary sources are sources that do not directly provide data for data collection, for example, through other people or through documents (Sugiyono, 2016). The primary data in this study is open space, while the secondary data in this study are the area and

population. The research instruments used were observation, documentation, and interviews. The data analysis technique used by the author is a quantitative descriptive approach with the Sport Development Index, namely by looking for the previous actual value and then continuing to look for the open space index value for sports.

The Open Space Index by Dharmawan et al. (2018) standardizes the availability of sports open spaces. It calculates the proportion of sports open spaces per person by comparing available space to a minimum and maximum benchmark. The Actual Value is the ratio of open space area to the population over seven years old. The formula subtracts the Minimum Value from the Actual Value to see how much it exceeds the minimum, then divides by the range (Maximum Value - Minimum Value). This results in an index between 0 and 1, where a value closer to 1 indicates higher availability of sports open spaces.

3. Result

Table 1 presents the data collection results from the total area of sports open spaces and the population aged seven years and above in the villages of Tawangharjo, Tarub, and Godan.

Table 1. Total area of open space and number of population aged 7 years and over

Tawangharjo Distric	Population Age 7 Years and Over	Sports Open Space Area (square meters)
Tawangharjo	5177	7571.31
Tarub	6610	239.54
Godan	5647	427.23

The actual value can be calculated after determining the open sports index value in Tawangharjo Village, Tarub Village, and Godan Village. Mutohir & Maksum (2007) mentioned that this can be done with a maximum value of 35 and a minimum value of 0. After meeting the actual value results, the open sports index values were calculated.

Table 2. Actual value, open space index, and categories in Tawangharjo District

Village	Actual Value	Sports Open Space Index
Tawangharjo	1.462489859	0.4178542454
Tarub	0.0362390318	0.0103540091
Godan	0.0756561006	0.0216160287

The results of the availability of open space in the villages of Tawangharjo, Tarub, and Godan show that the total area of open space for sports was 18042.48 m². Based on the grouping of Sport Development Index norms, the open space index in Tawangharjo Village was 0.417, which was in the low category; the open space index in Tarub Village was 0.010, which was in the low category; and the open space index in Godan Village was 0.021, also in the low category. So, the results of all open space indicators were not good enough. Therefore, it is necessary to develop and build sports fields that can accommodate community activities for sports.

The availability of sports facilities is the most important part of forming a conducive atmosphere for a society with a sports culture. Public facilities are not a prerequisite for action to form collective community behavior to develop a sports culture. Sports facilities are necessary to develop and maintain a sports culture with certain ideals. Public facilities are not a prerequisite for action to form community collective behavior to develop a sports culture. Sports facilities include fields, sports buildings or halls, collective swimming pools, jogging tracks, and other sports facilities. Sports facilities are facilities

provided specifically to be accessible to the general public to carry out social interaction activities and sports activities. Sports facilities for the environment or settlements are also called sports facilities for the community, usually in the form of parks for playing and open fields (Nugroho, 2019).

Tawangharjo District has an area of 93.06 km². Administratively, Tawangharjo District consists of 10 villages, namely Pulongrambe, Mayahan, Jono, Selo, Tawangharjo Tarub, Pojok, Plosorejo, Godan, Kemadohatur, 60 villages, 73 community units (*Rukun Warga/RW*), and 346 (*Rukun Tetangga/RT*). Based on land use data in the Tawangharjo District area, according to BPS Grobogan Regency, there are non-agricultural lands, namely houses and yards.

Table 3. Land area according to land users in Tawangharjo District

User	Area (ha)	Percentage
Non-Agricultural Land	1609.89	13.67
House and Garden	1062.00	13.57
Other Land	7.89	0.10

Local residents can also utilize unused land to become a public open space that serves to accommodate social functions, sports functions, and recreational functions (Sary & Ihsan, 2020).

4. Discussion

The availability of public open spaces can encourage residents to exercise. Public open space is the main purpose of the environment for children, providing opportunities for meaningful experiences and independence (Chaudhury et al., 2019). On the other hand, broad community interest in sports activities will inspire innovative use of open space (Dharmawan et al., 2018). Karanganyar Square has been effectively used for various activities, including informal gatherings, playing, sports (jogging), celebrations and local gatherings, festivals, and art performances (Suminar et al., 2021). Green open spaces are becoming a valuable source of physical activity and have the potential to reduce chronic disease and improve people's health (Wang et al., 2019).

The findings of research by Valianto and Sirait (2018) was that 77.3% of people use sports facilities at Medan State University. Because the facilities are complete, many people choose to use them. These facilities are critical to the overall success of the activity and the sport's future growth opportunities. Therefore, increasing public awareness, designing activities, and practicing during and after sports activities Means and methods to encourage sportsmen's participation seem to be important for obtaining success and also for developing the results of sportsmen's participation (Susanto et al., 2022). Achieving maximum performance in sportsmen takes a very long time and is accompanied by an exercise program that is in the process of training (Firdaus & Zawawi, 2020).

According to the researchers' observations, soccer is the most superior sport in the Tawangharjo Village, Godan Village, and Tarub Village. One soccer field is used as an open space by local communities. The second soccer field with abandoned conditions. Soccer sports infrastructure and facilities need to be maintained and improved so that they can be utilized in the long term (Suta et al., 2021). The only sport developing in the community is volleyball in the Godan and Tarub Village areas. Sports infrastructure and facilities, such as nets, poles, and volleyball nets, must be used and managed to enhance training, competition, and practice (Pradana et al., 2021).

Martial arts are one of the most popular sports in the three villages: Tawangharjo, Godan, and Tarub. The main factor in developing martial arts sports is the training location because the practice will not be carried out without a location. The second factor is the training facilities and infrastructure that

help the process of practicing pencak silat (Ulhasni & Barlian, 2020). Nasri (2019) states that adequate facilities are important in creating optimal skills, achievements, or performance.

According to Firdaus et al. (2020), the services, such as sports facilities, were not good enough to cause dissatisfaction among consumers or football spectators at the Gelora Sriwijaya Jakabaring Sport City Stadium. The four dimensions that show the quality of sports tourism are access quality, accommodation quality, venue quality, and contest quality. Following these dimensions guidelines will impact consumer satisfaction (Adi, 2020). Guntoro et al. (2022) mention that sports venues such as sports fields, sports halls, and venues need to be cared for and maintained so that their quality satisfies the people who use them.

The development or success of sports in an area cannot be separated from the roles of the state and local governments, the community, and the private sector. Sports infrastructure and facilities must be planned, funded, used, maintained, and managed by the local government and the community (Riza & Suraya, 2022). The program is running well, and the facilities are decent. The level of government implementation of sports programs and facilities in the Wongsorejo District is high. This is the result of community spirit and government involvement in community development (Hariadi et al., 2021).

Everyone needs sports, and to participate in sports activities, sports facilities and infrastructure that meet quality and quantity standards and are easily accessible to the wider community are needed. The involvement of the government and village officials in the welfare of the people, such as building sports open spaces that are sufficient to accommodate sports based on the interests of residents or the community to conduct regular physical activity, will prevent people from becoming obese (Irawan et al., 2021). Well-conceived physical activity will have an impact on people with more character (Gholy et al., 2022).

Abandoned sports open spaces and vacant land can be used as sports venues. To realize these solutions, awareness and concern for the community are needed. Mutual cooperation, such as cleaning abandoned open spaces so that they can be used according to their function, namely as sports venues, is also necessary.

5. Conclusions and Recommendation

According to the Sport Development Index norm, the availability of sports open spaces in the Tawangharjo District is low. Sports development that needs to be improved includes facilities and infrastructure to support sports, sports events, and the role of the government and society in maintaining and caring for sports facilities.

Researchers can propose that the local government provide sports services or facilities to the community in accordance with the sports that most exist in the region so that they can increase the level of physical fitness, which is later expected to impact people's welfare. The community's role is to develop sports by cleaning abandoned sports fields. The community can use the existing space to exercise with modified rules.

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