ARTICLE:

SPORT DEVELOPMENT INDEX ANALYSIS OF SILAT HILIR SUBDISTRICT, KAPUAS HULU DISTRICT

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Abstract: The purpose of the study. To empirically describe the Analysis of the Sport Development Index in Silat Hilir Subdistrict, Kapuas Hulu Regency. Materials and methods. The method used by the researcher is a quantitative descriptive method. The research type employed is a survey. Data collection techniques utilized in this research include direct observation, interviews, and measurement techniques. The population in this study consists of the entire population in Silat Hilir Subdistrict, Kapuas Hulu Regency, including 2 villages, namely Desa Baru and Desa Perigi, with individuals aged above 7 years, totaling 3453 people in Silat Hilir Subdistrict. Data analysis employs a quantitative approach using the Sport Development Index (SDI) analysis from the dimensions of participation and physical fitness. The sample size in this research is 30 individuals, selected from Baru Village and Perigi Village, with the criteria of 10 children (5 boys and 5 girls), 10 teenagers (5 boys and 5 girls), and 10 adults (5 men and 5 women). The age categories are 7-14 years for children, 15-24 years for teenagers, and 25-50 years for adults. The sampling technique used is stratified random sampling. Results. The research results indicate that the level of community
participation in sports activities in Silat Hilir Subdistrict, Kapuas Hulu District, particularly in Perigi Village and Baru Village, as assessed by the Sport Development Index, is 0.0512188, categorizing it as "Moderate." The level of physical fitness of the community in Perigi Village and Baru Village, Silat Hilir Subdistrict, Kapuas Hulu District, as evaluated by the Sports Development Index, is 0.907, falling into the "High" category. Conclusions. It can be concluded that sports activities have an impact on the physical fitness level of the community in Silat Hilir Subdistrict, as measured by the Sport Development Index.

Keywords: Sport Development Index

INTRODUCTION

By definition, sports training is a part of physical activity, or it can be said that sports training is a planned, structured, repetitive physical activity aimed at maintaining physical fitness (Suhairi & Arifin, 2022). On the other hand, physical training with specific loads will change the body's function and gradually increase the level of physical fitness. As individuals engage in training regularly, changes occur within the body, which can be divided into two types: rapid changes, often referred to as responses, and slow changes, or regular training, often referred to as adaptations. The scope of sports includes educational sports, recreational sports, and competitive sports, which must be considered in the context of sports development. This statement contradicts the prevailing notion in society that sports development is only associated with competitive sports.

This can be achieved not only through the performance of sports policy makers in promoting sports but also with the assistance of the public's awareness of participating in sports. Participation in physical activities is also known to reduce depression, stress, anxiety, and improve self-confidence. Physical activity also enhances health and prevents diseases such as heart disease, type 2 diabetes, osteoporosis, various forms of cancer, obesity, and injuries (Yudik, 2013:221). With the participation of the community in sports activities, it will improve the overall health of the participants, and in the next stage, sports will become a necessity for the community. When the community perceives sports as a necessity, they do not need to wait or be forced to engage in sports. Once this stage is reached, where the community considers sports a necessity, they will engage more actively and enjoy participating in sports activities, increasing sports participation rates in their region. With the increasing participation of the community in sports activities, there will be an improvement in the health and fitness levels of the population from year to year.

The active involvement of all segments of society with full responsibility for the progress of the nation and state is the key to achieving national development that encompasses all aspects of community, nation, and state life. The need for public awareness to engage in sports certainly contributes to the development of sports. This signifies that the position of sports is crucial because it affects the success of other sectors, especially those related to human life improvement and the quality of human resources. Moreover, sports development should be carried out through various efforts in mobilizing and exploring existing potentials, both in the coaching system, institutions, and the legal foundation that serves as the basis for national sports development. According to Natalia, et al. (2016:42), the goal of sports development is to enhance and cultivate the potential for sports achievement.
associated with sports infrastructure to strengthen the foundation of sports infrastructure by improving the development pattern of sports achievements to create a pool of talented sports human resources from all regions of Indonesia in accordance with local culture, physical characteristics, and environmental conditions that support the formation of outstanding sports potential in those regions.

National sports development in Indonesia is much needed. If we want to achieve high performance, the concept of sports development must be applied as early as possible, taking into account the existing sports development systems and pathways. Therefore, the orientation of sports development must be fundamental, systematic, efficient, and integrated from an early age and must lead to a common goal (Jamalong, 2014:157). There is a fact that Indonesian society neglects its physical fitness. The total population in 2021 is 273,879,750, with 22.37% categorized as not fit and 53.63% categorized as very unfit. This means that a total of 208,148,610 Indonesian citizens have low physical fitness. These figures are obtained from the National Sport Development Index Report in 2021. Laziness in exercising is the primary reason for the low fitness level of the Indonesian population. According to surveys, only 32.83% of Indonesians are categorized as active in sports. (Priyantono, 2022: 269).

Toho Cholik M and Ali Maksum (2007:9) mention that there are four dimensions that can be used as indicators in the development of sports in a region. The concept, called Sport Development Index, refers to a combined index that reflects the success of sports development based on four basic dimensions: 1) the availability of open sports spaces, 2) human resources, 3) community participation in sports, 4) physical fitness of the community. Of the four dimensions mentioned by Toho Cholik M and Ali Maksum, they are interrelated, and it can be said that if sports development in a region has these four dimensions, the region is making progress in sports development.

The availability of open sports spaces in Indonesia, especially in West Kalimantan, is still considered insufficient given the population in West Kalimantan. However, open spaces are also one of the city's elements, and their presence in a city can have a significant impact on the lives of the surrounding community. Rijal (2017:65) states that open spaces like places of worship, health, education, and other social facilities become a necessity for open spaces that cannot be ignored. Therefore, the availability of open sports spaces has a significant impact on the quality of human resources in that area. Yusutria (2017:39) states that human resources are the most strategic asset for a nation and state because the progress of a nation is not only measured by its natural resources but also by its human resources. Human resources can be linked to the level of community participation in sports. Permana (2015:10) states that community participation is the involvement of the community in every planning and development of the implementation of the program, not only in the program implementation process but also in participating in enjoying the results of the program implementation.

From the four dimensions of the Sport Development Index concept mentioned above, the researcher focuses on two dimensions: community participation in sports and the physical fitness of the community. These two dimensions are closely related because community participation in sports can determine the level of physical fitness of the community. It can also be interpreted that community participation is the voluntary involvement of the community in a program's activities, starting from the planning process, activity implementation, to the activity or program development process. Meanwhile, the development of human resources as
implementers in the field must be improved and empowered to support the coaching and
development of sports at the regional and even national levels.

Silat Hilir Subdistrict is one of the subdistricts in Kapuas Hulu Regency, geographically located to the south, bordering Silat Hulu Subdistrict and Sintang Regency. Silat Hilir Subdistrict covers an area of 1167.10 km² and consists of 13 villages. In the Provincial Sports Week (Porprov) championship in 2022 in Pontianak, the contingents from Silat Hilir won 3 gold medals and 2 bronze medals, contributing to Kapuas Hulu Regency ranking 7th in Porprov 2022. Therefore, the achievement of medals or championships should not be the sole measure of sports development.

Based on observations conducted in Silat Hilir Subdistrict, Kapuas Hulu Regency, there has been no research related to the Sport Development Index, nor has it been included as a sample in Sport Development Index research. Therefore, the researcher feels compelled to attempt to explore and examine the extent to which the level of sports development, as assessed by the Sport Development Index, in Silat Hilir Subdistrict, Kapuas Hulu Regency, specifically in the villages.

**METHOD**

The research method is a way used to solve research problems. The research method for the Analysis of Sport Development Index in Silat Hilir Subdistrict, Kapuas Hulu Regency, uses a qualitative descriptive research method that aligns with the research's substance and focus on the Sport Development Index aspects of participation and physical fitness in Silat Hilir Subdistrict.

This research takes the form of a survey with respondents whose data is collected and analyzed statistically to draw conclusions. The population in this research consists of the entire population in Silat Hilir Subdistrict, Kapuas Hulu Regency, totaling 3,453 people, with a focus on two villages, namely Baru Village and Perigi Village, whose residents are above 7 years old. The sample size in this research is 30 individuals, selected from Baru Village and Perigi Village, with the criteria of 10 children (5 boys and 5 girls), 10 teenagers (5 boys and 5 girls), and 10 adults (5 men and 5 women). The age categories are 7-14 years for children, 15-24 years for teenagers, and 25-50 years for adults. The sampling technique used is stratified random sampling.

Data collection techniques, as explained by Sugiyono (2012:137), are the most strategic steps in research because the main goal of research is to obtain data. From this explanation, the researcher needs to determine the techniques to be used in the research. The techniques employed in this research include using both primary and secondary data. Primary data in this research pertain to community participation, while secondary data concern the level of physical fitness in the community. Data is collected using observation, questionnaires, and a physical fitness test utilizing the Multistage Fitness Test (MFT).

The researcher conducted a survey using a questionnaire method on 30 individuals in Silat Hilir Subdistrict, focusing on two villages, namely Baru Village and Perigi Village. The survey included 10 children (5 boys and 5 girls), 10 teenagers (5 boys and 5 girls), and 10 adults (5 men and 5 women). Children were categorized in the age range of 7-14 years, teenagers between 15-24 years, and adults between 25-50 years. The data on the level of sports participation were collected using questionnaires.
Based on the pie chart diagram in Figure 4.1, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, show that 10%, or 3 individuals, did not engage in sports in the last week, while 90%, or 27 individuals, participated in sports in the last week.

Based on the pie chart diagram in Figure 4.2, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, indicate that 59%, or 16 individuals, have been engaged in sports for more than 3 years. Additionally, 19%, or 5 individuals, have been involved in sports for 1-2 years, 15%, or 4 individuals, have been engaged in sports for 0-1 year, and 7%, or 2 individuals, have been participating in sports for 2-3 years.
Based on the pie chart diagram in Figure 3.3, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, show that 56%, or 15 individuals, engage in sports more than 3 times a week. Meanwhile, 18%, or 5 individuals, stated that they do not have a fixed schedule for sports each week, 15%, or 4 individuals, engage in sports regularly 3 times a week, and 11%, or 3 individuals, participate in sports once a week.

Based on the pie chart diagram in Figure 4.3, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, indicate that 33%, or 9 individuals, spend 1-1.5 hours on sports activities. Meanwhile, 30%, or 8 individuals, state that they spend 0-30 minutes on sports, and another 30%, or 8 individuals, allocate 30-60 minutes for each sports session. Additionally, 7%, or 2 individuals, spend 1.5-2 hours during each sports session.

Based on the pie chart diagram in Figure 5.3, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, show that 63%, or 17 individuals, frequently engage in volleyball, 22%, or 6 individuals, practice badminton 1-2 times, and 15%, or 4 individuals, participate in soccer.
Based on the pie chart diagram in Figure 4.6, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, indicate that 56%, or 15 individuals, engage in sports with the main goal of maintaining their health, 33%, or 6 individuals, participate in sports to enhance their athletic performance, 7%, or 4 individuals, engage in sports to expand their social circle and socialize with others, and 4%, or 1 individual, practice sports to lose weight.

Based on the pie chart diagram in Figure 4.7, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, show that 48%, or 13 individuals, engage in sports through school programs, 30%, or 8 individuals, practice sports individually or independently without belonging to any club or organization, 15%, or 4 individuals, participate in sports through club memberships, and 7%, or 2 individuals, engage in sports through workplace programs.

Based on the pie chart diagram in Figure 4.8, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, indicate that 96%, or 26 individuals, have never been lazy about exercising, and 4%, or 1 individual, have been lazy about exercising once.
have experienced laziness in sports, while 4%, or 1 individual, stated that they have never experienced laziness in sports.

![Why not do sports](image1)

**Figure 9. Pie Chart Diagram**  
Reasons for Not Engaging in Sports (Source: Processed Data 2023)

Based on the pie chart diagram in Figure 4.9, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, show that 68%, or 19 individuals, cited lack of time as the reason for not engaging in sports, 18%, or 5 individuals, mentioned tiredness as the reason, 18%, or 3 individuals, stated that their work was sufficient exercise, and 3%, or 1 individual, indicated that they couldn't leave their tasks as the reason for not participating in sports.

![Sport Facilities in the area](image2)

**Figure 10. Pie Chart Diagram**  
Sports Facilities (Source: Processed Data 2023)

Based on the pie chart diagram in Figure 4.10, the results of the questionnaire from the sample in Silat Hilir Subdistrict, Kapuas Hulu Regency, show that 82%, or 23 individuals, stated that the sports facilities in their area are insufficient, while 18%, or 5 individuals, mentioned that the sports facilities in their area are adequate.

The above diagram represents the percentage results of the questionnaire answered by 30 individuals aged 7 years and above, including residents from 2 villages in Silat Hilir Subdistrict, Kapuas Hulu Regency. From the overall data, the researcher obtained information regarding the number of community sports participation and the population in the area. Subsequently, the results of the questionnaire on community sports participation and the population will be processed to obtain actual values.

Table 1. Actual Values for Silat Hilir Subdistrict
The actual value obtained from sports open spaces is: Population > Year, which is

\[
Actual \ Value = \frac{Area \ RTO \ \geq \ 7 \ years \ old}{17680.74} = \frac{3452}{5.12188}
\]

After determining the actual values for each sub-district, the level of sports participation will be determined using the following formula:

\[
Participation \ Index = \frac{Actual \ Value - Minimum \ Value}{Maximum \ Value - Minimum \ Value}
\]

Using the formula above, the value of the participation index in Silat Hilir Subdistrict is as follows:

\[
Silat \ Hilir = \frac{5.12188 - 0}{100 - 0} = 0.0512188
\]

With the result of the participation index value for Silat Hilir Subdistrict through the two villages in the area, the fitness level in Silat Hilir Subdistrict in 2023 is 0.0512188. Therefore, Silat Hilir Subdistrict falls into the "Moderate" category.

1. **Fitness Index of the Community**

   The fitness index is measured using the MFT (Multistage Fitness Test) procedure. This test is considered highly suitable and relevant for assessing the level of physical fitness in various age groups, from children and adolescents to adults. Therefore, to measure the level of physical fitness in the community of Silat Hilir Subdistrict, the MFT (Multistage Fitness Test) is used. As discussed earlier, the results of sports participation and the population in Silat Hilir Subdistrict have been determined, and now we will measure the actual value of the fitness test results and the population in the City of Magelang, with the following results:

<table>
<thead>
<tr>
<th>Subdistrict</th>
<th>Actual Fitness Values</th>
<th>Maximum Value</th>
<th>Minimum Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Child</td>
<td>Teenager</td>
<td>Mature</td>
</tr>
<tr>
<td>Silat Hilir</td>
<td>47,01</td>
<td>33,27</td>
<td>41,45</td>
</tr>
</tbody>
</table>

Once the actual value, maximum value and minimum value are known, the formula used to obtain the physical fitness value of the community in Silat Hilir District is as follows:

\[
Physical \ fitness \ index = \frac{Actual \ Value - Minimum \ Value}{Maximum \ Value - Minimum \ Value}
\]

By using the formula above, the fitness index value of the community in Magelang City can be determined as follows:

a. Physical Fitness Index for Children:
Children = 
\[\frac{47.01 - 28.1}{40.5 - 20.1} = \frac{26.91}{20.4} = 1.31\]

b. Physical Fitness Index for Adolescents:
   Teenager = 
   \[\frac{33.17 - 20.1}{40.5 - 20.1} = \frac{13.17}{20.4} = 0.64\]

c. Physical Fitness Index for Adults:
   Mature = 
   \[\frac{41.45 - 20.1}{40.5 - 20.1} = \frac{21.35}{20.4} = 1.04\]

So, 0.25 (IK. Childr) + 0.5 (IK. Teenager) +0.25 (IK. Mature) = 0.907

With the result of the physical fitness index value for Silat Hilir Subdistrict through the two villages, namely Baru Village and Perigi Village, in that area, the fitness level in Silat Hilir Subdistrict for the year 2023 is 0.907. Therefore, Silat Hilir Subdistrict falls into the "High" category.

DISCUSSION

The results of the participation study in Silat Hilir Subdistrict, located in 2 villages, namely Perigi Village and Baru Village, show that the participation index falls into the "Moderate" category when viewed from the perspective of the Sport Development Index. The participation index value is obtained from the calculation formula for the participation index, and the low participation of the community is determined based on the participation questionnaire distributed to 30 respondents aged over 7 years in the two villages. To advance sports development in a region, several important factors need to be considered, including aspects to measure sports development, such as the availability of open spaces, the level of enthusiasm or community participation, the number of human resources in sports, and physical fitness. The local government in Silat Hilir Subdistrict tends to assess sports development based on factors like medal achievements and participation in major sports events at the district and subdistrict levels. However, understanding sports development as a significant phenomenon should be instilled in young people from an early age.

According to the statements of some respondents, progress in sports in Silat Hilir Subdistrict has been quite positive over time. This progress can be observed in several areas, including the development of sports facilities, the successful hosting of major sports events in the subdistrict, and the enthusiasm of the community. These factors are used by the government in Silat Hilir Subdistrict as indicators of sports development. As a result of this research, it is found that the Sport Development Index (SDI) for Silat Hilir Subdistrict falls into
the "Moderate" category. Several factors influence the level of sports development in Silat Hilir Subdistrict, including the availability of green open spaces, human resources, community participation, and physical fitness. Green open spaces are valuable assets that every region should possess. However, the improper use of green open spaces can lead to their conversion into parking lots, areas for vendors, or other non-sports-related activities. Therefore, it is essential to prioritize their proper utilization for physical activities such as jogging and other sports.

Another crucial factor in determining sports development is physical fitness, which is closely related to physical activity. The lack of adequate facilities for physical activities in Silat Hilir Subdistrict has contributed to the low level of physical fitness among its residents. Human resources in sports play a significant role, but they are limited in Silat Hilir Subdistrict. Despite the demands placed on sports human resources, the government's attention has been insufficient. Therefore, there is a need for greater support and investment in the development of sports human resources. After obtaining the results of the physical fitness index for Silat Hilir Subdistrict, located in 2 villages, namely Baru Village and Perigi Village, the index value is 0.907, falling into the "High" category. Physical fitness is essential for daily activities to avoid excessive fatigue and maintain overall health. Physical fitness refers to the body's ability to adapt to specific physical tasks and environmental conditions efficiently and without excessive fatigue, recovering fully before the same tasks are performed the next day. The short-term effects of physical fitness programs combined with maintenance programs through physical activities have been found to positively impact health and individual fitness. Individuals with good physical fitness tend to have relative strength compared to those who are not physically fit.

The physical fitness index is an important indicator in assessing the Sport Development Index, as physical fitness is a prerequisite for individuals to perform their daily activities productively. After conducting the MFT (Multistage Fitness Test) on the community in the 2 villages, it is evident that the physical fitness of children, adolescents, and adults is good. Physical fitness is the foundation for individuals to carry out their daily tasks effectively, stay healthy, maintain enthusiasm for learning, and achieve optimal performance.

CONCLUSION

Based on the data analysis and research findings, it can be concluded that the Sport Development Index analysis for Silat Hilir Subdistrict in Kapuas Hulu District falls into the "Good" category. Specifically, the following conclusions can be drawn: (1) The level of community participation in sports activities in Silat Hilir Subdistrict, Kapuas Hulu District, especially in Perigi Village and Baru Village, as assessed by the Sport Development Index, is 0.0512188, categorizing it as "Moderate." (2) The physical fitness level of the communities in Perigi Village and Baru Village in Silat Hilir Subdistrict, Kapuas Hulu District, as assessed by the Sport Development Index, is 0.907, placing it in the "High" category.

Conflict of interest

This research only utilized samples from Perigi Village and Baru Village out of the seven villages in Silat Hilir Subdistrict, due to distance and time efficiency considerations.
Additionally, it focused on two dimensions out of the four dimensions present in the Sport Development Index (SDI).

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