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# Development of Physical Education in Elementary Schools in Langgudu District Bima Regency 

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#### Abstract

This study has two primary goals: first, to evaluate the evolution of physical education in primary schools situated in Langgudu District, Bima Regency; and second, to assess the index that measures the growth of physical education across elementary institutions in Bima Regency. A quantitative methodology was employed in this research utilizing a survey design. The study population consisted of pupils enrolled in three different categories of primary schools: accredited A, accredited B, and accredited C. The sample size comprised of 216 participants, whereby each accreditation group was equally represented by 72 students. The method employed for sampling entails the application of stratified random sampling technique in cluster sampling. The analysis of data involves the implementation of the Sports Development Index (SDI) analysis. a) The research review has shown that physical education facilities have an index value of 0.206 , falling under the low-low classification, b) In contrast, physical education infrastructure received an index value of 0.716 , placing it in the medium-sufficient category, c) Sports human resources obtained an index value of 0.402 in the low category/ lacking, d) Student participation obtained an index value of 0.124 in the low/less category, e) Physical fitness obtained an index value of 0.736 in the medium/adequate category. The elementary schools in Langgudu District, Bima Regency achieved a physical education development index score of 0.546 , placing them in the intermediate category.


Keywords: development; infrastructure; physical education

## INTRODUCTION

Development is a programmed effort that must be carried out continuously in order to improve and maintain the standard of human life both physically and spiritually (Prasetyo, 2013). In this development process, education plays a very important and strategic role for the creation of quality human resources who are able to compete in the globalization era.

Education has a very important role in human life, education can affect human development in all aspects of personality and life (Hadi \& Fifukha, 2013). The efforts undertaken include development in all fields, including physical education. The contribution of students in participating in physical education learning is able to build individuals and students who are smart, healthy, skilled, tough, competitive, prosperous, and dignified. Which implies that the position of physical education is important because it has high competence in influencing the success of the development of other sectors, especially those related to improving the quality of human resources and social life (Farhan, 2011).

Physical education is basically an integral part of the overall education system (Anwar, 2015). Physical education is part of overall education that prioritizes physical activity and fostering a healthy life for harmonious, harmonious and balanced physical, mental, social and emotional
growth and development (Kristiyandaru, 2012). The goal of physical education is to provide opportunities for children to learn various activities that foster and develop children's potential both in physical, mental, social emotional and moral aspects (Achmad Paturusi, 2012). One of the ways to improve a person's physical fitness is to exercise properly and regularly so that the body will continue to adapt according to its capacity (Rika Sepriani et al. 2018).

Physical education has a role, such as a benchmark that provides opportunities for students to be directly involved in all learning experiences through activities ranging from playing, and exercising which are carried out systematically (Pahliwandari, 2016).This personal planting can be started early in school through various learning programs (Yufiarti, Edwita, and Suharti 2019).

Physical education is an aspect of education as a whole, but behind all that there are big problems that haunt physical education learning if the right solution is not found to improve the quality and quality of physical education (Setiyawan, 2017). There needs to be an innovation and new thinking about how important the concept of physical education in schools is to improve the quality of physical education.

What will happen to students who want to get effective and actual physical education lessons if the teacher is not a sports graduate? This shows that if physical
education is given according to the portion and sourced from professionals, it is possible that superior seeds will be created from physical education that are able to compete on international and national levels because great athletes start from physical education given by professional teachers.

Therefore, it is necessary to improve the quality of sports human resources for the sake of the quality of physical education as an integral part of the process of increasing the development of physical education at the elementary school level in Langgudu District, Bima Regency. With the quality of human resources who are certified and have education in the field of physical education and are expected to be able to participate in order to improve the quality of physical education development at the elementary school level in the Langgudu sub-district, Bima Regency.

Evaluation of the success of developing achievement sports, educational sports, and community sports through an assessment of the sports development index known as the Sport Development Index (SDI). The Sport Development Index (SDI) is not a new term in sports, which was coined by Toho Cholik Mutohir and Ali Maksum assisted by their colleagues in 2002. SDI is a method of measuring sports achievement, sports education and community sports which is an alternative for measuring development progress.
achievement sports, educational sports and community sports.

The success of sports, in this case sports education or physical education, can be measured based on five dimensions, namely (1) availability of facilities, (2) infrastructure, (3) sports human resources, (4) participation, (5) and the level of physical fitness. The development of sports education or physical education that is successful is being able to encourage the 5 basic dimensions to develop and progress.

Based on the facts in the field according to researchers' observations and discussions with several physical education teachers in elementary schools in Langgudu District, Bima Regency, one of the problems that is often faced by physical education teachers is regarding physical education learning facilities. The existence of physical education facilities in elementary schools throughout the Langgudu District is still lacking. Several elementary schools in the Langgudu District only have 1 to 3 physical education facilities. Elementary schools in Langgudu District, Bima Regency only have open spaces but do not have courts such as volleyball, takraw, badminton.

In implementing physical education teaching and learning activities in elementary schools in Langgudu District, Bima Regency, the number of physical education teachers for each elementary school has not been sufficient according to
needs, from grade 1 to grade 6 with a large number of students taught by 1 physical education teacher, most of whom are still honorary and voluntary status.

The research entitled Sport Development Index (SD) in Wonogiri District, in this study only looked at the level of participation, fitness, and the level of community sports development (Kustiawan, 2022). The research entitled Sports Open Spaces in Gunungpati District, Semarang City: An Analysis Study Through SDI. In this study, only looking at sports open spaces for the community (Dharmawan, 2018). The research entitled Sports Participation of the Community in Bima Regency is reviewed from the Sports Development Index. This research only looks at participation and factors that influence sports participation among the community (Amar, 2020).

The results of this search provide information that there has been no research discussing the development of physical education in elementary schools in Langgudu District, Bima Regency.

Selain itu, sports extracurricular trainers at elementary schools in Langgudu District, Bima Regency, namely physical education teachers at the school concerned who do not yet have a coach certificate and have never attended trainer training or sports training in general. Sports extracurricular trainers at elementary schools in Langgudu District, Bima

Regency, seen from the number, are still very few.

Therefore, extracurriculars are less attractive so that a culture of healthy living and exercising is difficult to develop. Whereas when children are diligent in exercising it will improve student learning outcomes. One of the factors that influence learning is internal factors. Internal factors are physical including health factors. The student learning process will be disrupted if the student's health is disrupted. One of the elements that influence health factors is exercise.

## METHOD

The main objectives to be achieved through this research are:

1. To find out the development of physical education in elementary schools in Langgudu District, Bima Regency in terms of: a) Physical education facilities, b) Physical education infrastructure, c) Sports human resources, d) Student participation, e) Physical fitness.
2. To find out the physical education development index in elementary schools in Langgudu District, Bima Regency.

The method used in this study is a survey method. The survey method is used to solve actual large-scale issues with a large population, so a large sample is needed. This article is a quantitative research. Population is all respondents who
have general characteristics that have been identified, currently used by researchers as a source of more specific information (Kurniawan, 2018).

Then the population in this study were students of SDN accredited A (SDN 2 Rupe, SDN Karumbu, SDN Inpres Karumbu) with a population of 341 . SDN students accredited B (SDN 1 Rupe, SDN Inpres Rore, SDN Inpres Sambane) with a population of 296 C accredited SDN students (Dumu Inpres SDN, Laju Inpres SDN, Sorobali Inpres SDN) with a total population of 239 .

The sampling technique in this study used a cluster sampling technique with stratified random sampling. The samples in this study were students of SDN accredited A (SDN 2 Rupe, SDN Karumbu, SDN Inpres Karumbu) with a total sample of 72 people. SDN students with B accreditation (1 Rupe Elementary School, Rore Inpres Elementary School, Sambane Inpres Elementary School) with a total of 72 students. SDN students accredited C (SDN Inpres Dumu, SDN Inpres Laju, SDN Inpres Sorobali) with a total sample of 72 people.

The research instruments used in this study were closed questionnaires, observations and tests. The test to capture physical fitness data uses the Indonesian Physical Freshness Test (TKJI). The data analysis technique used is descriptive statistical techniques with percentages.

## RESULTS AND DISCUSSION

## Physical Education Facilities

Physical education facilities in elementary schools with A accreditation have a total of 40 facilities, B accredited elementary schools have a total of 34 facilities, C accredited elementary schools have a total of 35 facilities, and a total of 109 facilities.

## Table 1.

Results of Analysis of Physical Education Facilities

| Infrastructure | Schools with <br> Accreditation |  | Whole |  |
| :--- | :--- | :--- | :--- | :--- |
|  | $\mathbf{A}$ | $\mathbf{B}$ |  |  |
| Volleyball | 6 | 5 | 4 | 15 |
| Football | 4 | 4 | 2 | 10 |
| Basketball | 1 | 0 | 1 | 2 |
| Takraw ball | 3 | 1 | 2 | 6 |
| Badminton <br> Racket | 6 | 8 | 6 | 20 |
| Cakram | 3 | 0 | 0 | 3 |
| shot put | 2 | 1 | 2 | 5 |
| Relay baton | 4 | 0 | 0 | 4 |
| Plastic Ball | 4 | 0 | 6 | 10 |
| Table Tennis Bet | 2 | 4 | 4 | 10 |
| Table Tennis <br> Ball | 2 | 6 | 5 | 13 |
| Mattress | 1 | 2 | 2 | 5 |
| Turbo | 2 | 3 | 1 | 6 |
| Total | $\mathbf{4 0}$ | $\mathbf{3 4}$ | $\mathbf{3 5}$ | $\mathbf{1 0 9}$ |

## Physical Education Infrastructure

The data obtained by researchers are in the form of type and area of infrastructure/fields. Infrastructure at the accredited A elementary school has a total of 9 fields, including 3 volleyball courts, 3 badminton courts, and 3 takraw fields.

Infrastructure at the B accredited elementary school has 8 fields, including 3 volleyball courts, 3 badminton courts, and

2 Takraw fields, and in elementary schools with C accreditation only have 3 fields, one each for volleyball, badminton and takraw fields. The three total area values are used to calculate the infrastructure index value by calculating the total area of the infrastructure divided by the number of students in each elementary school.

## Table 2

Results of Physical Education Infrastructure Analysis

|  | $\begin{array}{l}\text { Schools with } \\ \text { Accreditation }\end{array}$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Field | A | B | C | Whole |
|  | $\begin{array}{l}\text { Size } \\ \text { (man } \\ \text { (m) }\end{array}$ | $\begin{array}{l}\text { Size } \\ \text { (many }\end{array}$ | $\begin{array}{l}\text { Size } \\ \text { (man }\end{array}$ |  |
| A B C |  |  |  |  |$)$

## Sports Human Resources

Physical education teachers and sports extracurricular trainers as data sources. In elementary schools with A accreditation, 1 teacher has a certificate, 9 teachers have a Strata diploma (1) from the Physical Education study program, and 3 have attended sports training. The sports extracurricular coaches come from the school itself, and there are 0 coaches who
have trainer certificates from the provincial government.

Accredited B schools have 1 teacher who is certified, 1 teacher with a Strata Certificate (1) from the Sports Teacher School program (SGO) and 3 from the Physical Education study program, and 1 person who has attended sports training. The sports extracurricular trainers come from the school itself, and there are 0 trainers who have been certified by the Provincial Government.

The elementary school accredited C has 1 teacher who is certified, 2 teachers who have a Strata diploma (1) from the Physical Education study program, and 1 person who has attended sports training. SD accredited C does not have a sports extracurricular coach. Total sports human resources 15 people.

Table 3
Results of the Analysis of Sports

| Human <br> Resources | Schools with <br> Accreditation |  | Whole |  |
| :--- | :---: | :---: | :---: | :--- |
|  | A B C |  |  |  |
|  | A | B | C |  |
| Civil servant <br> teacher | 2 | 1 | 1 | 4 |
| Non-PNS <br> Teachers | 3 | 2 | 1 | 6 |
| Extracurricular <br> Coach | 4 | 1 | 0 | 5 |
| Total | $\mathbf{9}$ | $\mathbf{4}$ | $\mathbf{2}$ | $\mathbf{1 5}$ |

## Human Resources

Student Participation
Data on student participation variables were collected using observation instruments. Researchers took data assisted by physical education teachers. The total
number of students who are active in sports extracurricular activities is 109 students.

## Table 4.

Participation Analysis Results
Schools with

| Participatio | Accreditation |  |  | Whole |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{n}$ | A B C |  |  |  |
|  | A |  |  |  |
|  | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{C}$ |  |
| Active |  |  |  | 109 |
| Student | 85 | 24 | 0 |  |
| Inactive | 25 | 27 | 23 | 767 |
| Student | 6 | 2 | 9 |  |
| Total | $\mathbf{3 4}$ | $\mathbf{2 9}$ | $\mathbf{2 3}$ |  |
|  | $\mathbf{1}$ | $\mathbf{6}$ | $\mathbf{9}$ |  |

## Physical fitness

Data on physical fitness variables were collected using the TKJI instrument, namely the 40 m running test, 600 m running test, pull-ups, sit-ups, vertical jumps on 72 male and female students for each accreditation.

## Physical Education Development Index in Elementary Schools Accredited A, B, and $C$ in Langgudu District, Bima Regency

Based on the physical education development index in elementary schools accredited A in Langgudu District, Bima Regency, the infrastructure index is 0.196 which is low, the infrastructure index is 0.818 which is high, the sports HR index is 0.515 which is medium, the participation index is 0.249 which is low, and the physical fitness index is 0.753 which is medium. After being analyzed as a whole using the SDI (Sport Development Index) analysis, the development of physical education in elementary schools with A
accreditation is in the middle category with an index value of 0.632 . For more details, the physical education development index in elementary schools with A accreditation can be seen in the graphic below:


Figure 1 Graph of IPPJ SD Accredited A
Based on the physical education development index at B-accredited elementary schools in Langgudu District, Bima Regency, the infrastructure index is 0.192 which is low, the infrastructure index is 0.864 which is high, the HR sports index is 0.356 which is low, the participation index is 0.081 which is low, and the physical fitness index is 0.748 which is medium.

After being analyzed as a whole using the SDI (Sport Development Index) analysis, the development of physical education in elementary schools accredited B is in the middle category with an index value of 0.560 . For more details, the physical education development index in
elementary schools with accreditation B can be seen in the graph below:


Figure 2. Graph of IPPJ SD Accredited B

Based on the physical education development index in elementary schools accredited C in Langgudu District, Bima Regency, the infrastructure index is 0.245 which is low, the infrastructure index is 0.389 which is low, the HR index is 0.294 which is low, the participation index is 0.000 which is low, and the fitness index is 0.706 which is medium. After being analyzed as a whole using the SDI (Sport Development Index) analysis, the development of physical education in elementary schools accredited C is in the low category with an index value of 0.408 . For more details, the physical education development index in elementary schools with accreditation B can be seen in the graph below:


Figure 3. Graph of IPPJ SD Accredited C
Physical Education Development Index in Elementary Schools in Langgudu District, Bima Regency

After being analyzed as a whole using SDI (Sport Development Index) analysis, the development of physical education in elementary schools in Langgudu District, Bima Regency is in the middle category with an index value of 0.546 .


Figure 4. Graph of IPPJ SD in Kec. Langgudu Kab. Bima

## Discussion

## Accredited Elementary School A

Judging from the index value of physical education facilities compared to the norms of the sports development index, it is in the low category. By looking at the data on physical education facilities in elementary schools with A accreditation in Langgudu District, Bima Regency, it is necessary to increase the number of physical education facilities. Physical education facilities are the foundation of physical education learning. With adequate physical education facilities, physical education teaching and learning activities can be carried out properly and run as expected.

Judging from the physical education infrastructure index value compared to the sports development index norms, it is in the high category. As stated by Sukiyandari (2018) that physical education infrastructure aims to motivate students in learning, facilitate movement, become a measure of success, and attract students' attention.

Judging from the value of the sports human resource index compared to the norms of the sports development index, it is in the middle category. Adequate and sufficient teacher ratios are an important indicator of the development of physical education in elementary schools with A accreditation in Langgudu District, Bima Regency. Mutohir \& Maksum (2007) said
that the availability of adequate numbers of physical education teachers in each school would encourage physical education activities in schools to be more interesting and varied. These conditions in turn will stimulate the interest and sports talent of the students.

Judging from the value of the physical fitness index with the sports development index norm, it is in the middle category. As stated by Widiastuti (2017) the importance of physical fitness for schoolage children, among others, can improve the ability of the organs, social-emotional, sportsmanship, and a spirit of competition.

## Accredited Elementary School B

Judging from the index value of physical education facilities compared to the norms of the sports development index, it is in the low category. Judging from the physical education infrastructure index value compared to the sports development index norms, it is in the high category.

Judging from the value of the sports human resource index compared to the sports development index norm, it is in the low category. Judging from the value of the student participation index compared to the norms of the sports development index, it is in the low category. Judging from the index value of physical education facilities compared to the norms of the sports development index, it is in the middle category.

After being analyzed as a whole using the SDI (Sport Development Index) analysis, the physical education development index in elementary schools accredited B in Langgudu District, Bima Regency is in the middle category with an index value of 0.560 .

## Accredited Elementary School C

Judging from the index value of physical education facilities compared to the norms of the sports development index, it is in the low category. Judging from the physical education infrastructure index value compared to the sports development index norm, it is in the low ketori. Judging from the value of the sports human resource index compared to the norms of the sports development index, it is in the low category.

Judging from the value of the participation index with the norms of the sports development index, it is in the very low category. Judging from the value of the physical fitness index compared to the norms of the sports development index, it is in the middle category.

After being analyzed as a whole using the SDI (Sport Development Index) analysis, the physical education development index in elementary schools accredited C in Langgudu District, Bima Regency is in the low category with an index value of 0.408 .

## Conclusion

Broadly speaking, this research is in accordance with the expected goals, namely to find out the development of physical education in elementary schools in the District of Langgudu, Bima Regency. Based on the results and discussion that has been described above, the conclusions of this study are as follows:

## Physical Education Development Index:

1. Development of physical education in elementary schools in Langgudu District, Bima Regency in terms of: a) Physical education facilities obtained an index value of 0.206 in the low/low category, b) Physical education infrastructure obtained an index value of 0.716 in the medium/sufficient category, c) Resources sports people obtained an index value of 0.402 in the low/less category, d) Participation obtained an index value of 0.124 in the low/low category, e) Physical fitness obtained an index value of 0.736 in the medium/adequate category.
2. The physical education development index in elementary schools in Langgudu District, Bima Regency obtained an index value of 0.546 which is included in the medium category.

## Cognitive and Affective Levels:

1. Cognitive students at elementary schools in Langgudu District, Bima Regency get an average score (mean) for males 0.56 and females 0.57 . Both
men and women are in the medium category.
2. Affective students in elementary schools in Langgudu District, Bima Regency, get an average (mean) score for males 2.65 and females 2.54 . Both men and women are in the moderate category.

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