# Projected Needs of State Junior High School Teachers in Linggo Sari Baganti District in 2025-2029

# Yulia Sasmita<sup>1\*</sup>, Irsyad<sup>2</sup>

<sup>12</sup> Department of Educational Administration, Padang State University, Padang, Indonesia

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#### ABSTRACT

Education plays an important role in creating quality human resources. To create quality human resources, they must have good learning outcomes and good learning outcomes are influenced by one of them by the classroom climate. Therefore, the problem that will be studied in this study is "How effective is the classroom climate seen in terms of 1) student cohesiveness, 2) student activity, 3) timeliness of assignment collection, 4) difficulty in students understanding learning, 5) democracy in the classroom, 6) student discipline, 7) completeness of learning resources, 8) comfort of the learning process in State Vocational High Schools in Padang City?". The type of research used is quantitative descriptive with a population of all students of State Vocational Schools in Padang City totaling 14,159 people, with a sample of 108 people. The size of the sample was determined using the Slovin formula and taken using the proportional stratified random sampling technique. The research instrument used was a questionnaire with a Likert Scale model about class climate which amounted to 45 items. Before the questionnaire is used, its validity and reliability have been tested. From the results of the data processing, it was obtained that the effectiveness of the classroom climate in public vocational high schools in Padang City in the aspects of 1) cohesiveness with an average score of 4.40 is in the effective category. 2) involvement with an average score of 4.25 is in the effective category, 3) difficulty with an average score of 3.77 is in the effective category, 4) speed with an average score of 4.06 is in the effective category, 5) Democracy with an average score of 4.25 is in the effective category, 6) Clarity of rules with an average score of 4.34 is in the effective category, 7) Completeness of resources with an average score of 4.22 is in the effective category, 8) Comfort of the physical environment with an average score of 4.12 is in the effective category. Based on these results, the author suggests that the Effectiveness of Classroom Climate in State Vocational High Schools in Padang City be maintained and needs to be improved again so as to increase the effectiveness of the classroom climate by students which is very effective.

#### Corresponding Author:

Yulia Sasmita Email: <u>sasmitayulia443@gmail.com</u>

#### 1. INTRODUCTION

The Indonesian government is trying its best to provide a quality education system for its citizens. This is one of the obligations of the Indonesian government contained in the Preamble to the 1945 Constitution. According to data shared by Wordtop20.org in 2023, in the last two years, Indonesian education still ranks 67th out of 203 countries. Wordtop.org is one of the sites that always shares the

ranking order of education in the world. Indonesia's ranking is still far behind compared to neighboring countries such as Singapore, Brunei, and Vietnam. This must certainly be a common concern on how to improve the quality of Indonesian education on the world stage. In realizing quality education, it needs to be managed properly. It should be noted that in an education it consists of various components. As conveyed by, that education cannot stand alone but is built on various components where the components are interrelated and affect each other so that they need to be regulated and managed so that the components can run well. The components in the education system are educational objectives, educators, students, educational media, educational tools and facilities, educational methods, educational content and educational environment Rosemarie (2009) (Sutianah, 2021).

One of the components that is very influential and makes a great contribution to the world of education is educators or teachers. According to Law Number 14 of 2005, teachers are professional educators with the task of educating, teaching, guiding, directing, training, assessing, and evaluating students in early childhood education through formal education, primary education, and secondary education. However, one of the problems of education in Indonesia from the past to the present is the teacher himself. According to him, there are at least two problems related to teachers, the first is the problem of teacher placement. It often happens that teachers teach not based on their skills or educational background. The second problem of teachers is the low quality of teachers. Teachers who teach not according to their educational background will certainly not be as competent as teachers who teach according to their expertise. In line with the opinion of Fatwa and Arifin (2017) who said that many teachers in Indonesia teach but are not in harmony with the educational background so that the learning atmosphere is not effective. This also happened in the State Junior High School in Linggo Sari Baganti District, namely the distribution of teachers that did not match their ideal needs. In some certain subjects in each school there is an excess of teachers and there is also a shortage of teachers for certain subjects such as informatics and paracrafts and cultural arts so that teachers who are excess in other subjects are placed to teach subjects that are not in accordance with their educational background, besides that there is also a shortage of teachers who have civil servant status for several subjects. This means that there is no good management of teacher needs for SMPN in Linggo Sari Baganti District (Suncaka, 2023)

Therefore, to overcome the above problems, it is very important to project the needs of State Junior High School teachers in Linggo Sari Baganti District. This projection is intended to find out the needs of teachers for the next five years as a type of medium-term planning so that the quality of State Junior High School education in Linggo Sari Baganti District is increasing and of high quality as conveyed by Chandra, et al. (2014) that teacher needs planning is very important to prevent excess or shortage of teachers in certain fields of study. Ritonga (2020) also argues that educational planning is also an important part of the overall educational process and Abdurahman (2017) also said that educational planning is a strategy by conducting a systematic and rational analysis of the educational development process. In addition, with the projection of teacher needs, this can be considered for the government in taking policies such as teacher recruitment and teacher equity.

## 2. METHOD, DATA, ANALYSIS

This research is a type of descriptive research with a qualitative approach. The subject of this study is a teacher of the State Junior High School in Linggo Sari Baganti District for all subjects in accordance with the applicable curriculum, namely the Independent Curriculum. The data collection technique in this study uses a documentation study with secondary data analysis. According to (Sukmadinata, 2011) that documentation study is a data collection method that is carried out by collecting and analyzing documents, both electronic and written. Secondary data is a source obtained because it already exists in a certain agency or institution and researchers only need to collect it according to the data needed (Kusrini, 2014). The research instrument used is a checklist list. The data analysis technique in this study is the extrapolation projection technique. To calculate the teacher's needs, it is necessary to project the student first. Student projections are carried out using the student flow method which obtains an overview of three indicators, namely students staying in class, moving up and dropping out of school. After the number of students in the projection year is known, the next thing to determine is the number of study groups. In determining the number of student study groups, it has been regulated in Permendikbud Article 24 No. 17 of 2017 that for the junior high school level in one study group, there are a minimum of 20 students and a maximum of 32 students. After that, the calculation of teacher needs is carried out. The formula for calculating the needs of teachers in each subject field of study: (Usman, 2016).

$$KGBbs = \frac{JPMbs \times R}{24}$$

Information

KGBbs : Needs of Teachers in the Field of Study

- JPMbs : the number of hours of study in the field of study per week
- R : number of participants who follow the field of study 24
  - : Mandatory Teaching Hours for Teachers

# 3. RESULT AND DISCUSSION

# Result

In calculating the needs of teachers, it is certainly based on student projections. For this, the student flow method is used. The results of the study show that the average number of elementary school graduates decreases by 3.3% each year. This average can be used to project the number of elementary school graduates for the next five years. Furthermore, the number of students continuing to the junior high school (SMPN) level has increased by 1.5% annually. It is assumed that there will be no more students repeating grades in the projection years. Additionally, the number of dropouts has decreased: 0.5% for grade 7, 0.5% for grade 8, and 0.4% for grade 9. As a result, the projected number of students for the year 2025 is 1,833; for 2026, 1,790; for 2027, 1,777; for 2028, 1,766; and for 2029, 1,753 students.

To calculate the number of student groups (rombel), the study takes into account the field conditions of each school, particularly the average number of students per group based on data from the last three years. After determining the number of students at each school, the total is divided by the average number of students per rombel, yielding results for SMPN 1 of 25 groups in 2025 and 22 groups in 2026–2029. For the next five years, seven schools maintain a fixed number of groups: SMPN 2 with 10 groups, SMPN 3 with 9 groups, SMPN 4 with 6 groups, SMPN 5 with 6 groups, SMPN 6 with 3 groups, SMPN 7 with 6 groups, and SMPN 8 with 6 groups.

Once the number of groups is calculated, the study proceeds to calculate the need for subject teachers over the next five years. Based on the type of planning, the projection of teacher needs falls under medium-term planning and is considered meso-level planning due to the scope covering the subdistrict. Projections are based on several assumptions, including no policy changes, policy changes, and a combination of both (Siahaan, 2023; Hermawan, 2017).

The study shows a decline in the number of junior high school students in Linggo Sari Baganti District each year. However, this decline does not significantly affect the overall student numbers, as the student-to-group ratio remains normal, ranging from 20 to 32 students. Only SMPN 1 experiences a reduction in student numbers in the first projection year, as it has the highest number of students compared to other schools.

In calculating the need for subject teachers in Linggo Sari Baganti District for the next five years, the study finds teacher shortages in several schools due to retirements and the absence of teachers with civil servant (ASN) status in certain subjects, while there is an oversupply in other subjects. This imbalance may inform future teacher distribution and recruitment strategies.

At SMPN 1 Linggo Sari Baganti, PAI and Pancasila Education teachers are sufficient, while there is a shortage of 2 ASN Indonesian teachers, 2 ASN Mathematics teachers, 1 ASN Science teacher, 1 ASN Social Studies teacher, 2 ASN English teachers, 1 ASN PJOK teacher, 1 ASN Informatics teacher, and 2 ASN Arts and Crafts teachers. At SMPN 2, there is an excess of 2 ASN PAI teachers and 1 ASN Informatics teacher, while Pancasila Education and Mathematics teachers are sufficient. The school faces a shortage of 1 ASN Indonesian teacher, 2 ASN Science teachers, 1 ASN Social Studies teacher, 1 ASN English teacher, 1 ASN PJOK teacher, and 1 ASN Arts and Crafts teacher.

At SMPN 3, there is an excess of 1 ASN PAI teacher, while teachers for Pancasila Education, Social Studies, English, Informatics, and PJOK are sufficient. The school is short of 2 ASN Indonesian teachers, 2 ASN Mathematics teachers, 2 ASN Science teachers, and 1 ASN Arts and Crafts teacher. At SMPN 4, PAI, Pancasila Education, PJOK, and Arts and Crafts teachers are sufficient, but there is an excess of 1 ASN Science teacher. The school is short of 1 ASN Indonesian teacher, 1 ASN Mathematics teacher, 1 ASN Social Studies teacher, 1 ASN English teacher, and 1 ASN Informatics teacher. At SMPN 5, there is an excess of 1 ASN Mathematics teacher, while other subjects are adequately staffed.

At SMPN 6, there is a shortage of 1 ASN teacher each for PAI, Pancasila Education, Indonesian, Social Studies, PJOK, Informatics, and Arts and Crafts. The staffing for Mathematics, Science, and English is sufficient. At SMPN 7, PAI, Pancasila Education, Mathematics, Science, Social Studies, English, and PJOK teachers are sufficient, but the school lacks 1 ASN teacher each for Indonesian, Informatics, and Arts and Crafts. At SMPN 8, teachers for PAI, Pancasila Education, Indonesian, Mathematics, Science, Social Studies, PJOK, and Informatics are sufficient, while there is an excess of 1 ASN English teacher. There is a shortage of 1 ASN Arts and Crafts teacher.

Overall, for the period 2025–2029, State Junior High Schools in Linggo Sari Baganti District will need 1 ASN PAI teacher, 1 ASN Pancasila Education teacher, 8 ASN Indonesian teachers, 5 ASN Mathematics teachers, 5 ASN Science teachers, 4 ASN Social Studies teachers, 3 ASN English teachers, 3 ASN PJOK teachers, 4 ASN Informatics teachers, and 7 ASN Arts and Crafts teachers.

### Discussion

From the results of the calculations, it can be seen that some schools experience a shortage of ASN teachers in certain subjects, while others have an excess of teachers. One of the factors contributing to the shortage of ASN teachers is the number of teachers retiring in the next five years. This is in line with Danumiharja's (2014) opinion, which states that one of the factors in calculating teacher needs is the number of retiring teachers. For ASN teachers, the retirement age is set at 60.

Notably, the most prominent surplus of ASN teachers is among PAI teachers at SMPN 2 and SMPN 3, while SMPN 6 experiences a shortage of PAI teachers. In SMPN 4, there is an excess of science teachers, while SMPN 2 faces a shortage of science teachers. Similarly, SMPN 2 has an excess of informatics teachers, whereas other schools lack teachers for this subject. SMPN 4 experiences a shortage of mathematics teachers, while SMPN 5 has an excess, and SMPN 8 has an excess of English teachers, while SMPN 2 has a shortage.

According to Yani (2010), the uneven distribution of teachers must be addressed promptly, as it can negatively impact the quality of educational services. Therefore, the government and the Education Office need to take action. Based on Government Regulation Number 19 of 2017 concerning Teachers and Permendikbud Number 19 of 2019 concerning the Deployment and Transfer of Teachers, the South Coast Regency Education Office can redistribute teachers to address this issue. Internal transfers can be conducted to move teachers from schools with an excess of staff to those experiencing shortages. Krisnanto et al. (2023) suggest that teacher distribution results can be used for teacher mapping, recruitment, or as a basis for teacher transfer policies to ensure that teachers are evenly redistributed throughout the region.

Additionally, a solution to the shortage of ASN teachers is the recruitment of P3K (government contract) teachers. The South Coast Regency Education Office and the Regional Civil Service Agency can collaborate in recruiting P3K teachers. Government Regulation Number 49 of 2018 concerning P3K Management explains that P3K teachers can be appointed to meet the needs of teaching staff, especially in schools lacking educators. This regulation also provides opportunities for experienced honorary teachers to be appointed as P3K teachers. Matin (2013) also emphasizes that the goal of educational planning is to achieve effective and efficient outcomes by utilizing existing resources, including teaching staff.

Given that some junior high schools in Linggo Sari Baganti face a shortage of ASN teachers in certain subjects, while others have an excess of honorary teachers for the same subjects, appointing honorary teachers as P3K teachers can be considered as a solution to address the ASN teacher shortage.

### 4. CONCLUSION

Based on the research results and discussion, it can be concluded that the number of students in State Junior High Schools in Linggo Sari Baganti District has gradually decreased. However, this decline has not led to a significant reduction in the number of study groups. From the projection of teacher needs, it is evident that, between 2025 and 2029, the State Junior High Schools in Linggo Sari Baganti District will require the following ASN teachers: 1 PAI teacher, 1 Pancasila Education teacher, 8 Indonesian teachers, 5 Mathematics teachers, 5 Science teachers, 4 Social Studies (IPS) teachers, 3 English teachers, 3 PJOK teachers, 4 Informatics teachers, and 7 Arts and Crafts teachers.

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