Designing Key Performance Indicators (KPI) for Teachers to Improve the Performance of SMK Muhammadiyah 20 Panai Hulu, North Sumatra

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Abstract. Organizational performance is an indicator of the level of achievement that can be achieved, reflecting the success of an organization and the results achieved by the organization members. Performance is the result of collaborative activities between members or organizational components in order to realize organizational goals. This study aims to design teacher performance indicators to improve school performance. The respondents of this study were SMK Muhammadiyah 20 Panai Hulu teachers, as an assessment factor using the National Education Assessment Standard (SNP), which contains the minimum criteria for the education component. The results of this study can be used as a benchmark for achieving teacher performance. Performance achievement benchmarks based on KPIs will significantly change every semester or year due to the performance standards adjustment by the school.

Keywords: Education · Key Performance Indicator · Performance Measurement · the Multifactor Evaluation Process

1 Introduction

SMK Muhammadiyah 20 Panai Hulu is one of the private vocational high schools in Labuhan Batu Regency, Panai Hulu District, North Sumatera. Currently, there are 20 teachers consisting of 10 permanent teachers and 10 honorary teachers from various study fields. Teacher performance assessment is critical because it will answer the teacher's basic question about how good the teaching quality is. Performance appraisal feedback will provide several things, including assurance that teachers are contributing and doing the right things, awareness of the impact of teaching performance on desired outcomes (e.g., student satisfaction), performance measures (including quality, quantity, speed, etc.), and recognition of the importance and value of teacher performance [1].

After conducting research at SMK Muhammadiyah 20 Panai Hulu, it can be seen that the performance appraisal system used at that school is still not sufficient to solve problems regarding teacher performance appraisal because there is still no development of a comprehensive teacher performance appraisal system [2]. Therefore, researchers

are interested in studying this to find out more about assessing teacher performance and designing a system that can help SMK Muhammadiyah 20 Panai Hulu assess teacher performance. With the Multifactor Evaluation Process (MFEP) method and taking one of the criteria from the eight National Education Standards, namely the Standard for Educators and Education Personnel, and choosing a sub-criteria that is following the research, namely Teacher Competence according to SNP [3], it is hoped that it can become a means for SMK Muhammadiyah 20 Panai Hulu Regency to measure teacher performance The MFEP method is a decision-making method that can be used as a performance appraisal. Performance appraisal is done by considering some essential factors. These considerations are in giving weights from the multifactor involved and considered necessary.

2   Research Methods

The type of research used in this research was quantitative research. Quantitative research is a scientific way to explore a phenomenon through several questions in the form of a questionnaire. The initial step in this research is to conduct a literature study, formulate a problem formulation and then make several questions in the form of a questionnaire and how the evaluation results can be a suggestion for improvement to SMK Muhammadiyah 20 Panai Hulu. This research was conducted at Muhammadiyah 20 Panai Hulu Vocational School, Panai Hulu District, Labuhanbatu Regency, North Sumatra Province, Indonesia. The population in this study were all 20 teachers of SMK Muhammadiyah Panai Hulu to obtain reliable and accurate data for this study. In this study, the techniques used in data collection were as follows: Interviews were carried out before and after the study to strengthen the research. Observations were carried out before and after the study to strengthen the research. A questionnaire was given to respondents as an internal information study. The study was conducted from March to May 2022.

In order to answer the research objectives, several methods of data analysis were used as follows: Literature studies were conducted by analyzing initial findings in the field by comparing literature or journals related to research problems. The literature study was used as a starting point for studying subsequent research problems. A questionnaire was given to respondents to obtain data that can be used as a reference for research.

3   Results and Discussion

3.1   System Analysis and Design

Based on research that has been conducted at SMK Muhammadiyah 20 Panai Hulu, the current teacher performance appraisal procedure only relies on leaders' assumptions without using an accurate assessment. 14 indicators have been set to assess teacher performance [1, 4, 5]: (1) Know the characteristics of students, (2) Master learning theory and educational learning principles, (3) Curriculum development, (4) Educational learning activities, (5) Understand and developing potential, (6) Communicate with students, (7) Assessment and Evaluation, (8) Act in accordance with Indonesian national religious, legal, social, and cultural norms (9) Show a mature personality, (10) Work

Table 1. Key Performance Indicators (KPI)

No.	Teacher Name	Standard	Results	Achievement
1.	Lestari	100%	90.42%	90.42%
2.	Sarmin	100%	90.38%	90.38%
3.	Suliyana	100%	90.04%	90.04%

ethic, high responsibility, pride in being a teacher, (11) Be inclusive, act objectively, and not discriminatory, (12) Communicate with fellow teachers, education staff, parents of students, and the community, (13) Master the structure material concept and scientific mindset that support the subjects being taught, and (14) Develop professionalism through reflective action.

3.2 Calculation of Key Performance Indicators (KPI)

Table 1 shows the achievements of each teacher. The teachers chosen as examples include Lestari, Sarmin, and Suliyana.

4 Conclusion

After designing and making a teacher performance measurement system application using the Multifactor Evaluation Process method, as well as testing and analyzing test results, it can be concluded that the system created can produce decision support for teacher selection priority recipients of incentives and rewards that are more appropriate because of the performance measurement process carried out using the MFEP method so that the policies taken by the Principal are appropriate and appropriate and with the teacher performance measurement system [6], it is concluded that from the questionnaire data based on the calculation of the User Acceptance Test (UAT) it was found that 73% of respondents agreed with the Teacher Performance Measurement System Using Key Performance Indicators (KPI) in accordance with the 2005 SNP Using the Multifactor Evaluation Process (MFEP) Method [7].

References

1. Harris, D. N., & Sass, T. R. (2014). Skills, productivity and the evaluation of teacher performance. *Economics of Education Review, 40*, 183–204.
2. Elliott, K. (2015). Teacher performance appraisal: More about performance or development? *Australian Journal of Teacher Education, 40*(9), 102–116.
3. Raharjo, S. B. (2014). Kontribusi delapan standar nasional pendidikan terhadap pencapaian prestasi belajar. *Jurnal Pendidikan dan Kebudayaan, 20*(4), 470–482.
4. Lo-Iacono-Ferreira, V. G., Capuz-Rizo, S. F., & Torregrosa-López, J. I. (2018). Key Performance Indicators to optimize the environmental performance of Higher Education Institutions with environmental management system–A case study of Universitat Politècnica de València. *Journal of Cleaner Production, 178*, 846–865.

5. Luneva, E. V. (2015). Key performance indicators (KPI) system in education. *Asian Social Science, 11*(8), 194.
6. Warnilah, A. I., Purnia, D. S., Adiwisastra, M. F., Sutisna, H., & Ardianto, R. (2020). The Implementation of the MFEP (Multi Factor Evaluation Process) method in determining the learning model. *Journal of Physics: Conference Series, 1641*(1), 12036.
7. Baharudin, S., Ismail, M., Ahmad, S., & Dahalan, N.M. (2011). Evaluating the usability and acceptance of multimedia web-based education among children. In 2011 international symposium on humanities science and engineering research (pp 46–49)