

# Need Analysis of Development of Principal Performance Assessment Model based on MySQL Software

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**Abstract** - The career path of principal is largely determined by the level of performance achievement in leading the school, therefore it is necessary to have relevant performance assessment media in accordance with the demands of 4.0. This study was conducted to develop a principal performance assessment model based on MySQL software using the ADDIE approach. The focus of this article is analyzing needs with domains; (1) the scoring system, (2) the utilization of guidebook, (3) the constraints to the implementation of assessments, and (4) the development of MySQL software for principal performance assessment. The research was conducted with quantitative methods. The respondents were the supervisors of public junior high school in Padang, West Sumatera, Indonesia. The data were collected by questionnaires and analyzed through descriptive statistics. The results showed that the principal performance assessment had problems, therefore the development of MySQL software was necessary to assess the principal performance.

**Keywords:** Needs Analysis, Principal Performance Assessment.

## I. INTRODUCTION

Many aspects that need attention related to the assessment of the principals performance, but from a number of literature studies it was found that the assessment of the principal performance generally tends to examine the aspects of the instruments of the principal performance assessment (Gaziel, 2008; Ministry of Education and Culture, 2012; Triwiyanto, 2015; Bafadal, 2016 ; Kurniady, Sururi, & Suryadi, 2017). This is because the assessment of the principals performance seems to be a low priority for both the principals itself and the supervisors (Lashway, 2003; McAdams & Barilla , 2003; Goldring et al., 2009; Kimball, Milanowski, & McKinney, 2009; Louis, Leithwood, Wahlstrom, & Anderson, 2010; Davis, Kearney, Sanders, Thomas, & Leon, 2011; Clifford & Ross, 2012).

The assessment of the principal performance is an integral part of the process of measuring the implementation level of the principal duties that shows the processes and results of work achieved as a basis for decision making. Bafadal (2016) states that the performance assessment of principals can provide information on maps of the strengths and weaknesses of each principal as a basis for coaching, transfer, promotion, and demotion. Therefore, a relevant principal performance assessment system is needed in accordance with the demands of the 4.0 digital era.

One system that can be used is the MySQL program. Besides being able to store a lot data and data searching is easier, this program can calculate the total value, average, etc., and can be limited to anyone who may and may not access certain data (Widigdo, 2003; Solichin, 2013). This programming uses a database (Taylor, 2010) and is structured in a structured manner (Paszko & Turner, 2001). Data operations in the database generally follow the same pattern, namely through a series of steps, namely opening a connection with the server database, selecting and opening the desired database, sending commands to retrieve, change, delete, access the results of data retrieval, and end the connection. Therefore, this study aims to identify the needs analysis of the development of a model for assessing principals performance based on MySQL software.

## II. METHOD

This study was conducted to develop a principals performance assessment model based on MySQL software using the ADDIE approach. In this article, the focus is on analyzing needs with domains: (1) scoring system, (2) utilization of guidebook, (3) constraints to the implementation of assessments, and (4) development of MySQL

software for principals performance assessment. The respondents were limited to all supervisors of public junior high school in Padang City, West Sumatra, Indonesia. According to coordinator of supervisors, there were 11 supervisors who evaluates the principals of public junior high school in Padang City.

The research was conducted with quantitative methods. The data was collected by questionnaires using rating scale to limit the possible answers but are more conducive to generating numeric data for measuring the respondents' feedback to the research questions. The responses were analyzed through descriptive statistics.

### III. RESULTS AND DISCUSSION

Needs analysis begins with reviewing the implementation of principals performance assessment carried out so far at the office of Department of Education of Padang City, through the distribution of research instruments to the supervisors. This needs analysis is carried out to collect data about the problems of principals performance assessment. The informations that were obtained through the distribution of this research instruments were the problem of the scoring system, the use of guidebook, constraints to the implementation of the assessment, and the development of MySQL software to assess the principals performance.

The scoring system consists of three aspects, namely the aspects of assessment preparation, implementation of assessment, and calculation and reporting of assessment results. The results of the study showed that the scores of the scoring system in the aspect of the assessment preparation was 55.14%, the aspect of implementation of assessment was 54.69%, and the aspect of calculation and reporting of assessment results was 57.27%. Overall the scoring system was 55.70% (less relevant). From these three aspects, it is known that a relevant assessment system is needed in the principals performance assessment.

In terms of guidebook, the respondents had a guidebook that can be utilized as a guide to assess the performance of principals. The results showed that from eleven items of questions about the use of guidebook was obtained a score of 53.48% (less maximum). It means that the guidebook owned by the respondents has not provided maximum benefits to them. Related to this, a guidebook is needed to help supervisors carry out assessment tasks. With the guidebook, supervisors can carry out and report on the performance assessment of the principals effectively. All the respondents stated that it is very necessary to develop a guidebook for assessing the performance of principals based on MySQL software.

Problem related to constraints in the performance assessment of the principals is the implementation of assessments that are still done manually. The respondents felt that it was a very complicated problem for them. The research finding showed that the score of the constraints to the implementation of assessments was 81.82% (high category). The respondents stated that they experienced some problems in the performance assessment of the principals. The assessment process takes a long time. In addition, the process of describing the results of the principals performance that has been achieved by each principal also requires a long time. These makes the supervisors feel difficult in preparing the report on the performance of the principals.

The development of MySQL software to assess the principals performance was the last information obtained from distribution of questionnaires to the respondents. The result showed that the score obtained was 87.38% (high category). It means that the respondents have high expectations for the existence of a software for assessing the performance of the principals. In general, supervisors have information technology devices that can be utilized. Most of the supervisors have their own computer devices. Related to this, a technology-based system is needed to help supervisors carry out the assessment process. By implementing this system, the ease of carrying out and reporting on assessments can be utilized by related parties.

Overall, from the questionnaires distributed to the respondents obtained a score of 69,60% (enough category). This score showed that the assessment of the principals performance had not been implemented well. This was because the assessment was still done manually so that it experienced various obstacles in its implementation. To address these issues it is necessary to develop a principals performance assessment model based on MySQL software.

The results of the study showed that from the four aspects studied related to needs analysis (scoring system, utilization of guidebook, constraints on the implementation of assessment, and the development of MySQL software to assess the principals performance), it can be known that there were several problems that had to be overcome. In terms of the assessment system, it had not been a serious concern by the supervisors. The three

stages of the assessment system carried out had not been able to describe the performance of the principals as a whole. This is contrary to the opinion of Bafadal (2016) which states that the performance assessment of principals should be able to provide information on maps of the strengths and weaknesses of each principal as a basis for coaching, transfer, promotion and demotion. Therefore, the assessment system of principals performance needs to be improved so that the objectives of the assessment can be achieved optimally.

In terms of using the guidebook, most of the supervisors had not guided the book in carrying out the assessment. According to the supervisors, the appraisal instruments contained in the guidebook were not equipped with an explanation of the procedures for a more complete assessment, especially an explanation of the physical evidence of the principals performance. Whereas, Ministry of Education and Culture (2012) states that the guidebook for assessing the principals performance is a reference in collecting data. The information gathered is very important as a basis for continuous professional development and career development of the principals. To improve the objectivity of the assessment results, a guidebook of principals performance assessment is needed.

The problems to the implementation of the assessment were something that cannot be avoided, this is because the process of carrying out the assessment was still done manually. Constraints experienced were generally related to the difficulty of bringing the devices to the location of the school where the assessment was conducted. In addition, the supervisor also had difficulty in assessing, scoring, analyzing the results, and reporting them, including describing the results, especially for supervisors whose knowledge and expertise groups vary. The time for preparing the report was also very long. Besides that, the supervisors was not only assessing, but also fostering the performance of the principals based on the results of the performance assessment that had been carried out. These cause reporting of the assessment results to be more complicated. These various problems obstructed the achievement of the principals performance assessment objectives.

In terms of software development, it must be done to address the problems faced when carrying out the assessment process. According to Moses (2001) and Cassidy (2005), education management information systems are the integration of people, technology, process and information to support educational decision making. One of the computer systems that can be used for the principals performance assessment is the MySQL program. This program can store a lot of data, the data searching is easier, can calculate the total value, average, and can be limited to anyone who may and may not access certain data (Widigdo, 2003; Solichin, 2013).

Thus, it can be concluded that the assessment of the principals performance still faces various problems. Therefore, based on the results of the needs analysis about the principal performance assessment, a more effective and efficient software, in this case MySQL software, is needed.

#### IV. CONCLUSION

Needs analysis is a necessity in order to provide information to develop a performance assessment model for principals based on MySQL software. The intended needs analysis is the process of collecting, processing, analyzing and interpreting data on the reality of the implementation of the principals performance assessment that has been carried out previously, namely the assessment system, the use of guidebook, constraints to the implementation of the assessment, and the development of MySQL software to assess the principals performance. The results of the needs analysis are very useful in order to provide information on the map of the strengths and weaknesses of the implementation of the principals performance assessment, as a basis for designing the performance assessment model of the principal based on MySQL software.

#### V. ACKNOWLEDGMENT

I would like to acknowledge the management of Postgraduate Program of Padang State University and the Department of Education of Padang City to provide opportunities for me to do this research. I also thank to the participants in this study for giving me useful information that will determine the success of this lessosn.

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