Design of A Web-Based Teacher Performance Evaluation System at Vocational School

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ABSTRACT

This research is about the web-based evaluation of teacher performance at SMK Negeri Tabukan Utara. The method used in this research is the research and development (R&D) method. The research and development method is the steps in implementing research and development strategies that are carried out to produce certain products and to test the effectiveness of these products. The software development model used is a rational unified process (RUP). The RUP development model was chosen because this model can be adaptive and adapted to the needs of the information system development process. The RUP model is divided into four stages, namely: inception, elaboration, construction, and transition stages.

Keywords: Performance evaluation system, teacher performance, web

INTRODUCTION

In everyday life, humans never live alone but always live in groups or organizations. Every organization or agency, both government and private, in implementing its programs is always directed towards achieving goals that have been targeted together so that organizational goals can be achieved well, human resources play a very important role and need to receive more in-depth attention and

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study, one of the factors The criteria for achieving the smooth running of an agency's goals are identifying and evaluating the performance of its employees, therefore employee performance is a very important thing to pay attention to so that the agency's goals can be achieved effectively. Along with its development, all agencies are required to be able to compete to provide maximum service. Likewise, employees as public servants and government servants are required to be able to provide the best service to the agency. This is one of the functions that must be carried out by the agency which has the task of carrying out the entire process of implementing education so that it can help someone have the expertise or skills needed to live in society and be able to develop their potential and the potential of society. Teacher performance influences how much they contribute to the school. Each job has specific job criteria, or identifying work dimensions as the most important elements of a job, therefore it is necessary to know the various weaknesses and strengths of a teacher as a basis for correcting weaknesses and strengthening strengths to increase productivity and development so that the performance of a teacher in each agency must be optimized to achieve the goals of that agency. For this reason, it is necessary to design a periodic teacher-based performance evaluation system that is oriented toward the past or future. Based on the description that has been put forward, this is the author's reason for conducting research with the title: WEB-Based Design of a Teacher Performance Evaluation System at North Tabukan State Vocational School.

LITERATURE REVIEW

Media Learning

The first step in creating a system is designing the system. Design is the process of developing new specifications based on recommendations from system analysis results (Pratasik et al, 2022). The definition of design (Ladjamudin, 2005) in his book entitled Analysis and Design of Information Systems is as follows: The design stage has the aim of designing a new system that can solve the problems faced by the company obtained from selecting the best alternative system. Design is the depiction, planning, and sketching or arrangement of several separate elements into one complete and functioning unit. System design can be designed in the form of a system flowchart, which is a graphic tool that can be used to show the process sequences of the system (Watuseke et al, 2022). System design determines how a system will complete what must be completed. This stage involves configuring the software and hardware components of a system so that after installation the system will truly satisfy the design that has been determined at the end of the system analysis stage. (Saukah and Cahyono, 2015).

Information Systems

Information systems (IS) are a combination of information technology and the activities of people who use that technology to support operations and management. In a very broad sense, the term information system is often used to refer to interactions between people, algorithmic processes, data, and technology. In this sense, the term is used to refer not only to an organization's use of information

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and communications technology (ICT) but also to how people interact with this technology in support of business processes.

Some make a clear distinction between information systems, computer and ICT systems, and business processes. Information systems differ from information technology in that information systems are usually seen as having an ICT component. This is mainly related to the purpose of using information technology. The information system is also different from the business process. Information systems help to control the performance of business processes. Information systems as a special type of work system. A work system is a system in which humans and/or machines carry out work using resources to produce certain products and/or services for customers (Mark, 2011). An information system is a working system whose activities are aimed at processing (capturing, transmitting, storing, retrieving, manipulating, and displaying) information. Thus, information systems are interrelated with data systems on the one hand and activity systems on the other. Information systems are a form of communication system in which data is represented and processed as a form of social memory. Information systems can also be considered as semi-formal languages that support humans in decision-making and action.

Web

The web is a computer network-based information medium that can be accessed anywhere at a relatively low cost. The web is a form of implementation of the web programming language (web programming). The history of the development of web programming languages begins with the emergence of HTML (Hypertext Markup Language), which was then developed with the emergence of CSS (Cascading Style Sheet) which aims to beautify the appearance of websites (Romansyah et al, 2019). The definition of the Web according to several experts includes:

1. The web is the most visible part of the world's largest network, namely the Internet (Hidayatullah, 2007).
2. The web is a place on the internet that has a name and address (Talib, 2013).
3. The web is a collection of graphically rich information sources that are interconnected with each other on the Internet (Boone, et.al, 2004).
4. A dynamic website is a website that is structurally intended to be updated as often as possible. Usually, apart from the main one which can be accessed by users in general, an admin page is also provided for editing content.
5. Interactive websites are websites that are currently booming. One example of an interactive website is blogs and forums. On this website, users can interact and argue about what they think.

Performance Evaluation

The purpose of carrying out performance evaluations is to assess the performance of an employee in carrying out his duties and responsibilities, and whether he has carried out his duties correctly and on time. This assessment covers all aspects that are not seen from the physical side but the most important things include loyalty, work performance, competence, responsibility, obedience, honesty,

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cooperation, initiative, initiative, and leadership, as well as special things according to the field and level of work which he holds. Organizational evaluation theoretically has a certain method or system for measuring how a bureaucracy works in achieving its goals. One aspect that is part of measuring bureaucratic work is organizational work evaluation. Evaluation in management theory is a tool used to find out how far the organization's goals are being implemented.

Bureaucratic work evaluation is an activity and research on the results of work. In public service bureaucracy, what is evaluated is the performance of public services carried out by an organization (Wibowo et al, 2012). Therefore, evaluating the performance of public service organizations is part of the evaluation of a public policy which wants to look at the process to see how far a public policy can produce results. Achievement of results with determined policy goals and targets. Mangkunegara (2005) said that the basic principles of performance evaluation are as follows:

a.   The focus is on building strength to resolve any problems that arise in the implementation of performance evaluation.

b.   Always based on a finding of opinion, for example from a discussion, for example, the results of discussions with direct providers, a good constructive discussion to find the best way to create high quality.

c.   A natural management process does not feel that it gives the impression of being forced, but is intended consciously in corporate planning, carried out periodically, directed, and programmed, not an activity that is only carried out once a year or an activity that is carried out only if the manager remembers.

Dipang (2013) further said that the purpose of performance evaluation is to improve or improve organizational performance through increasing the performance of the organization's Human Resources.

Framework

The large number of employees who must be assessed and the limited time available are the main problems faced by assessors in carrying out performance assessments and archiving annual employee performance assessment data. This happens because no system can make it easier for assessors to enter and manage assessment data. One of the efforts made to solve this problem is to use a simple program created using Microsoft Excel. However, this is considered still not practical and efficient, especially in terms of archiving annual data, because the number of Microsoft Excel files stored annually will be very large. Apart from that, assessors also have to move data from one file to another to process it into final value information. The development of data processing technology and the problems above are the basis for researchers to carry out research development. The development carried out by researchers is to utilize web-based evaluation system technology so that the process of evaluating performance programs and archiving teacher performance assessment data at SMK Negeri Tabukan Utara can be carried out more validly, practically, and reliably. This web-based teacher performance evaluation system product at vocational schools is expected to meet software quality standards. One of the widely used software quality standards is ISO 25010. This ISO 25010 quality standard is the latest software quality standard which is expected to be relevant to technological developments.

METHODS

This research uses the Research and Development (R&D) method. The Research and Development method is the steps in implementing research and development strategies carried out to produce certain products and to test the effectiveness of these products. The product resulting from research using the R&D method is a web-based teacher performance evaluation system at SMK Negeri Tabukan Utara. The software development model used is the Rational Unified Process (RUP). The RUP development model was chosen because this model can be adaptive and adapted to needs in the information system development process. The RUP model is divided into four development stages as in Figure 1.
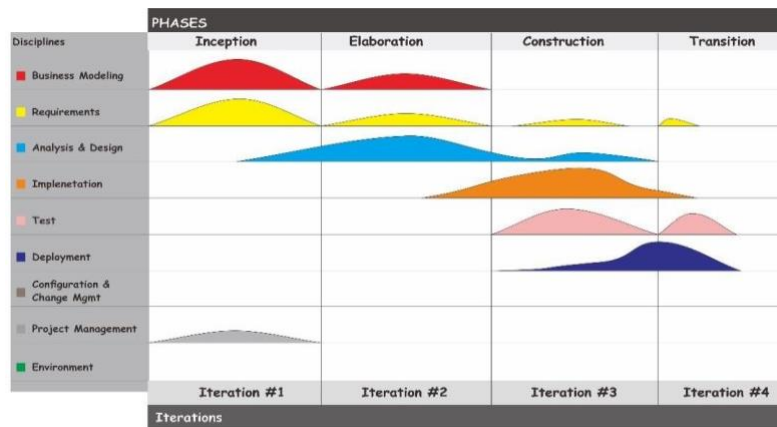

Figure 1. RUP Model

Data Collection

a. Interview

Interviews are used as a data collection method if researchers want to conduct a preliminary study to find problems that must be researched (Sugiyono, 2013). This research requires this data collection method to dig deeper into the problems that exist in the Web-based teacher performance evaluation system.

b. Observation

Observation is a complex process, process composed of various biological and psychological processes (Hasanah, 2017). Two of the most important are the processes of observation and memory. This research uses observation methods to help explore the needs of a teacher performance evaluation system.

c. Questionnaire

A questionnaire or questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents to answer (Tumembow, 2021). This research uses a questionnaire method to test the functional suitability and usability characteristics of the teacher performance evaluation system.

RESULTS AND DISCUSSION

The criteria measured and carried out in this research can be seen in the table. These criteria are the criteria adopted from the RUP model. See Table 1.

Table 1. Criteria Measured.

No	Statement
A. Usefullness	
1	This system helps me be more effective
2	This system helps me be more productive
3	This system is useful
4	This system has had a huge impact on the tasks I do in my life
5	This system makes it easier for me to achieve the things I want
6	This system saves time when I use it
7	This system meets my needs
8	This system works as I expected
B. Ease of Use	
9	This system is easy to use
10	This system is practical to use
11	This system is easy to understand
12	This system requires as few steps as possible to accomplish what I want to do with it
13	This system can be adjusted to suit your needs
14	There is no difficulty using this system
15	I can use this system without written instructions
16	I haven't noticed any inconsistencies in my time using this system
17	Both infrequent and regular users will like using this system
18	I can come back from mistakes quickly and easily
19	I can successfully use this system every time I use it
C. Ease of Learning	
20	I learned to use this system quickly
21	I can easily remember how to use this system

22	This system is easy to learn how to use
23	I am skilled at using this system quickly
D. Satisfaction	
24	I am satisfied with this system
25	I would recommend this system to a friend
26	This system is fun to use
27	This system works the way I want it to

Teacher performance assessment is carried out through several components, including direct observation, independent assessment, and assessment from the school or institution. After going through the assessment process, the results will be used to determine teacher professional development, such as training or certification. However, the teacher performance assessment system in Indonesia still has several challenges, such as a lack of standardization and limited human resources to carry out consistent and quality assessments. Therefore, efforts continue to be made to improve the teacher performance assessment system so that it can achieve its goals more effectively and efficiently. Apart from that, it is also important to pay attention to the quality of the assessment instruments used in the teacher performance assessment system. A good instrument must be relevant to the teacher's duties and responsibilities and be able to measure performance accurately. Apart from that, the instrument must also have high credibility and validity so that it can be relied on in making decisions regarding the development of teacher professionalism. In developing assessment instruments, it is necessary to carry out regular testing and evaluation so that they can continue to be improved and perfected according to the needs and developments in the world of education. This will also help minimize the risk of bias in evaluating teacher performance so that fair and accurate decisions can be made. In the context of developing a teacher performance assessment system, collaboration between educational institutions, the government, and educational support organizations is also very important to achieve the expected goals.

CONCLUSION

Teacher performance assessment is carried out through several components, including direct observation, independent assessment, and assessment from the school or institution. After going through the assessment process, the results will be used to determine teacher professional development, such as training or certification. However, the teacher performance assessment system in Indonesia still has several challenges, such as a lack of standardization and limited human resources to carry out consistent and quality assessments. Therefore, efforts continue to be made to improve the teacher performance assessment system so that it can achieve its goals more effectively and efficiently. Apart from that, it is also important to pay attention to the quality of the assessment instruments used in the teacher performance assessment system. A good instrument must be relevant to the teacher's duties and responsibilities and be able to measure performance accurately. Apart from that, the instrument

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