Development of Learning Supervision Model Website Based on Improving Teacher Performance at Elementary School

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Abstract

This research aims to produce products and test the feasibility of products, such as producing a website-based supervision model development system in improving teacher performance in elementary schools, facilitating the management of conventional website-based management information systems, and determining the feasibility of website-based learning supervision system models in improving teacher performance in elementary schools. The method used in this research is Research and Development (R&D). The research steps include 1) data information, 2) model design, 3) model testing, 4) model revision, 5) development, 6) trial/testing, 7) model revision, 8) finalization and socialization. This research was conducted in a participatory manner. The research output targets at this stage are preparing a website-based learning supervision model design. This website-based principal learning supervision model design has been tested and revised to obtain an effective learning supervision model and develop a website-based learning supervision model. The results of this research are: (1) Learning supervision activities are carried out through the website http://supervisipbelajaran.educmps.com, (2) Principals feel greatly helped by the Website-Based Supervision Model because it is practical, effective, and efficient, (3) Making it easier for teachers to improve performance at school.

Kata kunci:

Pengembangan Model, Supervisi Pendidikan, Pembelajaran, Kinerja guru

Abstrak.


INTRODUCTION
Elementary schools are essentially a system, the components of which act as input instruments include principals and teachers, school buildings and educational equipment and learning equipment, curriculum, learning media, learning methods, funds, school buildings, and educational equipment. and others (Abdussyukur et al., 2023; Fasya et al., 2023). Teachers as a source of input, their main task is to educate and teach students. Teachers are the most influential component and are directly involved in the implementation of the learning process in schools (Alwi & Mumtahana, 2023; Erwandi et al., 2023). For this reason, teachers who can produce the best performance which is greatly influenced by the quality of competence and skills in managing the learning environment more effectively (Armstrong, 2022; Cardy & Leonard, 2014; Pratiwi & Warlizasusi, 2023; Rahayu et al., 2023). However, sometimes there are still teachers who have poor performance in giving lessons and managing classes at school.

To overcome this, an effort is needed from the principal to improve teacher performance in the learning process in the classroom. One of the efforts that can be done by the principal is to carry out supervision activities (Amelia et al., 2022; Atsstaury et al., 2024). Educational supervision is defined as a process of providing professional assistance services to teachers to improve their ability to carry out the tasks of managing the learning process effectively and efficiently (Bakalim et al., 2018; Fischer et al., 2021; Sanglah, 2021; Tazkiah et al., 2022). The main purpose of supervision is to improve teacher performance in schools. Based on previous research that has been done, the implementation of supervision aims to assist teachers in improving their competence, not solely to scare teachers (Faizah et al., 2023; Imaduddin, 2023; Susanti & Rusdinal, 2023). In the implementation of supervision, the principal must pay attention to the methods and media to be used so that the supervision process can run smoothly. Based on previous research that has been done by (Suchyadi et al., 2022) that the supervision method used by the principal greatly affects the results of supervision. Supervision activities can also be carried out online, such as previous research that has been done by (Asmarani et al., 2021; Fauzi & Kartiko, 2023; Karim et al., 2022) Supervision is carried out online using media such as Zoom and Google meet, but online supervision or e-supervision is still not optimal in its implementation due to several factors such as unstable networks.

Based on previous research that has been done, Supervision can be done manually/conventionally or online/e-supervision. Manual supervision, the principal uses face-to-face methods and uses paper media to record the results of supervision. The principal needs a lot of time and energy to prepare supervision sheets and arrange supervision schedules for teachers to be supervised. While online supervision or e-supervision, schools must have a good internet network so that the supervision process is not interrupted and optimal. Based on this, researchers have a solution by developing a website-based learning supervision model in improving teacher performance in elementary schools. Through this website-based
supervision model, it combines manual supervision and e-supervision. Supervision is still carried out face-to-face between the principal and teachers, while the supervision assessment can be done online through the website.

This research will also see how the response of principals and teachers if using a website-based learning supervision model. This research aims to produce a model system for developing a website-based learning supervision model to improve teacher performance in elementary schools and make it easier to manage conventional/manual supervision into a website-based management information system. This research also tested the feasibility of a website-based learning supervision model system in improving teacher performance in elementary schools.

**RESEARCH METHOD**

The research method that is used is the research and development (R&D) method. Research and development methods or in English Research and Development are research methods used to produce certain products and test the effectiveness of these products. This research refers to the Borg & Gall model through ten steps in implementing research and development strategies, namely: 1) preliminary research, 2) planning, 3) product development, 4) testing initial stage field trials, 5) initial stage product revisions, 6) final stage field trials, 7) final stage product revisions, 8) operational trials, 9) final product revisions and 10) implementation.

The research was conducted from April to September 2023 at SDS Terpadu Putra 1 Jakarta, located on Jl. Inspection of Kalimalang Channel No.98 Curug, Pondok Kelapa, East Jakarta. In collecting data in the field, the techniques used are interviews, observation and documentation. The informants involved in this research were the Principal, Deputy Principal, and representatives of SDS Terpadu Putra 1 Jakarta teachers. The data that has been obtained is then processed by data reduction and provides temporary conclusions.

**RESULTS AND DISCUSSION**

**Results**

Based on the results of interviews conducted by researchers at the school, the Principal stated that the implementation of learning supervision at the Putra 1 Integrated Elementary School was still carried out manually. This learning supervision is carried out by the principal at the beginning and middle of each semester using a supervision format that is still manual using paper. The supervision process is carried out directly by calling each teacher to the principal's office, and then giving directions before carrying out teaching and learning activities in the classroom. Next, the school principal will supervise learning directly by following teaching and learning activities in class while the teacher is teaching. Based on this, a solution is needed so that the learning supervision process can be carried out more effectively and efficiently.

Therefore, schools need a better supervision system related to monitoring and assessing teacher activities and performance. This is unique in this research, because it can bring innovation and new solutions to schools in terms of helping monitor and evaluate
teacher activities effectively and efficiently in the form of a website that can be accessed whenever and wherever they are.

Based on the results of observations and interviews with resource persons to analyze what is needed in the system, the researchers decided to develop a Website-Based Learning Supervision Model in Improving Teacher Performance in Elementary Schools to facilitate supervision activities and data management of learning activity reports by school principals and teachers.

"Development of a Website-Based Learning Supervision Model in Improving Teacher Performance in Elementary Schools" using CodeIgniter and PHP: Hypertext Preprocessor as programming languages used to design a website, as well as MySQL, which is database management software that runs on web hosting. These three things will be configured according to needs, thereby creating a supervision system model that suits the school's needs.

This supervision model is installed within the local host and web hosting network which includes the internal network on the researcher's laptop and the internet network. The researcher used a localhost server installed on the researcher's laptop for system model development needs and on a web hosting supervision server which would later become the main place for "Development of a Website-Based Learning Supervision Model to Improve Teacher Performance in Elementary Schools".

Product installation on localhost was carried out on Thursday, May 20, 2023, with domain http://supervisipbelajaran.educmps.com. The system can be accessed by opening a web browser via Mozilla Firefox, Google Chrome, Microsoft Edge, and other similar websites. First, click the web browser then type the website address or system name, namely http://supervisipbelajaran.educmps.com/in the search address bar then click enter/search.

![Figure 1 Main View of the Learning Supervision Website](image)

After that, the principal can log in using the account that was created previously. After successfully logging in, the website display consists of several features, namely: Master List, School Data List, User Account, Teacher Data List, Questionnaire List (for school principals as supervisors), Ranking Results, and Reports.
Figure 2 Homepage of the Learning Supervision Website

Each menu list has its function, namely as follows; (1) Master list, divided into two menus, namely Criteria and Questions which function to enter criteria that will be used as learning supervision instruments by the school principal, (2) School Data List, this function to explain school information, including the name and complete address of the school, (3) This User Account List consists of Administrators and School Principals. This list functions to provide information on who is in charge of being an administrator and the identity of the school principal, (4) Teacher Data List. This list functions to enter data on teachers at the school, starting from name, identity including NIP and NUPTK, class, position, and school, (5) Questionnaire List, This list can only be accessed by the school principal as supervisor or supervisor who will carry out learning supervision. In this menu the principal can choose the time and teacher who will carry out learning supervision, (6) Ranking Results List, useful for displaying information on the results of learning supervision that has been carried out by the principal on teachers, (7) Report List functions to download and print the results ranking of learning supervision carried out by school principals. The results of this printed report can be used as a reference for school principals in supervising future learning, to see changes in each teacher, whether there is progress or not. (6) List of Ranking Results, useful for displaying information on the results of learning supervision that has been carried out by the school principal for teachers, (7) List of Reports serves to download and print the results of the ranking of learning supervision that has been carried out by the school principal. The results of this printed report can be used as a reference for school principals in supervising future learning, to see changes in each teacher, whether there is progress or not.
The first stage was to socialize the Head of the Primary School for Boys 1 along with the Deputy Principal, teacher representatives, and staff. At this stage, the researcher introduced the learning supervision website which had been created through a virtual meeting via Zoom Meeting on July 13, 2023. The researcher explained how or a tutorial to use the learning supervision website to the school principal, starting from how to create an account, and what data is needed, and explained all menu list functions available on the learning supervision website.

After explaining thoroughly about the learning supervision website, the school then responded that they felt that this learning supervision website was very helpful. Because with this website, it will make it easier for school principals to carry out learning supervision for all existing teachers. Because the implementation of learning supervision at Putra 1 Integrated Elementary School is still carried out manually, where learning supervision is carried out face to face with teachers one by one, so it requires quite a lot of time and energy.

There are several suggestions for improvements and additional features that the school wants to make this learning supervision website more effective. The suggestions given are; (1) fixing bugs that still exist on the website so that there are no errors, (2) adding a Notes field feature in the questionnaire menu list section, this notes field is useful for school principals to provide personal notes for each teacher, (3 ) There is a historical record of the results of previous supervision as a benchmark for the school principal to see whether there have been changes and improvements in the teachers who have been supervised.

The next stage is to create a website improvement plan that was previously suggested by the school. The improvements that have been made to the learning supervision website are as follows; (1) fix bugs on the website; and (2) adding notes field feature in the questionnaire menu list section to include suggestions or input from the school principal for teachers who are being supervised. The additional features that have been added to the learning supervision website are as follows.

![Figure 3 Display of the Suggestions/Feedback section](image)

After making these improvements, the next stage is to carry out socialization back to schools regarding the website improvements that have been carried out. After socialization, it continues with the second phase of testing. At this stage, the principal conducted a trial of learning supervision with several teachers using the improved website. According to the principal of SDS Terpadu Putra 1, the implementation of learning supervision using the website is very practical, effective and efficient. Because it is easy to access and does not require a lot of energy and time. Furthermore, the responses from teachers regarding the use of this learning supervision website really help them in knowing the quality of their teaching.
performance in class. This is because they get the results from the supervision carried out by the school principal, so they can find out their strengths and weaknesses. With the results of this learning supervision,

After carrying out the second stage of testing, the final stage is finalization. At this stage, the school has agreed to use the learning supervision website that has been created. Next, this supervision website will be connected to the school's local host.

In the research process, of course, there are obstacles or limitations that researchers experience both internally and externally, the following include; (1) Coding knowledge that is still not advanced enough means that researchers often experience errors in system development, which causes researchers to have to revise/maintain the system repeatedly so that the desired results are appropriate, (2) The "Development of a Website-Based Learning Supervision Model System in Improving "Teacher Performance in Elementary Schools" cannot be accessed optimally on mobile devices due to differences in speed and loading capacity of cellphone displays.

Discussion

The implementation of supervision in schools is very important in improving teacher performance in providing learning in the classroom. Supervision is carried out by the school principal for teachers to provide guidance and assistance regarding the obstacles faced by teachers. Based on Minister of National Education Regulation Number 13 of 2007 concerning School Principal Standards and National Education Minister Regulation Number 12 of 2007 concerning School/Madrasah Supervisory Standards, it is explained that the duties of school principal supervision include the task of planning an academic supervision program for teachers using appropriate supervision approaches and techniques as well as following up on the results of academic supervision. towards teachers in order to increase teacher professionalism. Supervision activities have a very important role in developing teacher competence in schools. According to Aribowo, state that supervision has a very important contribution in improving teachers' professional competence in the quality of teaching carried out by teachers in schools (Arifin et al., 2023; Nilda et al., 2020; Priansa, 2014).

This supervision activity is carried out manually, namely the principal meets face to face with the teacher and records the results of the supervision on paper (Fischer et al., 2021; Munjin & Rosyadi, 2021). So, in carrying out supervision, the school principal needs a lot of time and energy to manage the results of this supervision. Apart from that, in implementing manual supervision, school principals and teachers sometimes experience several obstacles, such as not having the courage to be open or honest about their shortcomings with the principal (Huda & Rokhman, 2021; Nurkhasanah et al., 2023). Meanwhile, school principals sometimes feel uncomfortable giving suggestions for improvement directly to teachers. One of the schools that still applies conventional supervision is SDS Terpadu Putra 1 Jakarta.

This is also proven by the results of previous research conducted by Aditya and Ismanto with the title "Model for Improving the Quality of Education through Web-Based Academic Supervision" in 2020, it is explained that implementing manual supervision is considered less effective because teachers feel burdened by academic supervision and do not dare to disclose deficiencies to the principal. Meanwhile, from the perspective of the principal as supervisor,
in reality the principal feels nervous and lacks the courage to convey useful input and solutions to improve teacher deficiencies. Based on this problem, so a solution is needed so that supervision activities can be carried out effectively and efficiently.

The development of Information and Communication Technology is currently very rapid, all work can be done online via devices with internet network support such as computers and cellphones. One of them is in schools, for example, during exams, several schools have started using online exams via websites. This is in line with the opinion according to Roenberg, with the development of the use of ICT there have been several shifts in the learning process in schools, namely; a) from the classroom to anywhere and anytime, b) from paper to "Online" or channels, c) from physical facilities to network facilities. By using existing ICT advances, it can make it easier for us to complete our work more practically. One way is by using the help of a website (Marrone et al., 2022).

A website is an information medium that can be accessed via devices with internet network support. According to Nurmi, a website is defined as a collection of pages that can display various information in the form of text, sound, images, animation or a combination of several forms or all of them (Aslaksen & Lorås, 2019). Currently, websites are widely used as information media, such as news websites, shopping websites, company websites and other institutional websites. This website is useful for displaying useful information for people who access it online via devices. So information can be accessed anytime and anywhere.

Based on this, researchers conducted research in the form of developing a website-based learning supervision model to improve teacher performance in elementary schools. In this research, researchers created a learning supervision website that can be used online by school principals in supervising learning for teachers in schools. In creating this supervision website, researchers used theories from Borg & Gall model through ten steps in implementing research and development strategies, namely: 1) preliminary research, 2) planning, 3) product development, 4) testing initial stage field trials, 5) initial stage product revisions, 6) final stage field trials, 7) final stage product revisions, 8) operational trials, 9) final product revisions and 10) implementation.

This learning supervision website can be accessed by the Principal and School Admin online via computer or laptop. On this website, there are several menus available that can make it easier for school principals to carry out learning supervision for teachers at school (Karim et al., 2021; Sutarno, 2023). This learning supervision website can make it easier for school principals to fill in, process, and display the final results of the learning supervision that has been carried out. Supervision results can also be printed, so they can be used as archive documents for school principals and teachers. The response from the Principal of SDS Terpadu Putra 1 Jakarta was that this Website-based Learning Supervision Model really helps the principal in carrying out supervision at the school. With this learning supervision website, school principals do not need a lot of energy and can be more honest and open in providing suggestions to teachers to improve their teaching performance in the classroom.

The development of this Website-Based Learning Supervision Model is still said to be not perfect, in this research the limitations experienced by researchers are that they still have limited coding knowledge and this learning supervision website cannot be accessed mobile. So
the hope is that further research can create an application-based learning supervision model that can be accessed mobile and can be installed on smartphones.

CONCLUSION
The research "Development of a Website-Based Learning Supervision Model in Improving Teacher Performance in Elementary Schools" has been successfully carried out with the following points: (1) The results of the research "Development of a Website-Based Learning Supervision Model in Improving Teacher Performance in Elementary Schools" answer the problems of The previous problem formulation was successful in creating an effective and efficient website-based model of the school principal's supervision system for teachers, which of course can help schools in managing supervision activities. This system can be accessed by school principals, teachers and admins as a medium for monitoring and evaluating activities, storing information, socializing and communicating between school principals and teachers online, (2) Objectives in developing a website-based learning supervision model to improve teacher performance in elementary schools. This can be achieved by successfully designing a system model that is effective and efficient and easy to access to facilitate school principals in monitoring and evaluating online learning activities that can be carried out anywhere and at any time, (3) The results of this website system trial show satisfactory results and has met the needs of school principals and teachers. This is based on the results of early stage product trials, final stage trials and operational trials which state that the system is suitable for use, but there are still several notes that need to be improved, (4) The system model "Development of a Based Learning Supervision Model "Website for Improving Teacher Performance in Elementary Schools" can be applied in real terms to assist schools in managing teacher supervision reports by school principals.

In this research on the development of a website-based learning supervision model, there are shortcomings, namely that the researchers' abilities in coding science are still limited and it cannot be accessed optimally on mobile devices due to differences in speed and loading capacity of cellphone displays. Hopefully, in future research, we can present a Learning Supervision Model that can be accessed mobile, such as creating a learning supervision application that can be installed and accessed via mobile or tablet devices.

REFERENCES


