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Development of a Website-Based Teacher Management Information System to Improve Transparency and Operational Efficiency in Schools

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ABSTRACT

***Purpose**: The teacher monitoring system is an important component in efforts to improve the quality of education. However, in its implementation, there are several problems that often occur. One of them is the lack of efficiency in recording and monitoring teacher activities, which is still done manually. This causes the data produced to be inaccurate, difficult to access, and time-consuming. In addition, the lack of technology integration in the monitoring process also hinders real-time teacher performance analysis, so that strategic decision-making is less than optimal. This study aims to identify the main problems in the existing teacher monitoring system and propose technology-based solutions to improve the performance of the system. The results of the study are expected to be the basis for developing a more effective and efficient teacher monitoring system.*

***Subjects and Methods:** The background to this problem is rooted in the need to increase transparency, accountability, and effectiveness of teacher management. An information technology-based monitoring system can be a solution to overcome this obstacle. With an automated and integrated system, it is expected to provide convenience in recording attendance, evaluating performance, and reporting accurate data. Qualitative methods are research approaches that aim to understand social phenomena or human behavior in depth, based on the perspectives and experiences of the subjects involved. This approach focuses on the exploration of meaning, process, and context, emphasizing aspects of subjectivity, interpretation, and nuance.*

***Results:** Data collection methods through interviews, observations, documentation and literature studies. System development methods through data collection, activity diagrams, use cases, databases, coding and testing.*

***Conclusions:** Conclusions The website-based teacher management information system designed and developed in this study is able to provide solutions to various problems found in manual systems. This system has succeeded in overcoming data inaccuracy by providing more structured and accurate automatic attendance recording. Attendance data that was previously prone to errors can now be recorded in real-time with a 100% accuracy rate. Then the problem of slow access to information has also been successfully overcome with the report feature available in real-time, allowing principals and other.*

INTRODUCTION

In the current global and dynamic business world, leadership becomes one of the major determinants of organizational success, more so in creativity sectors (Wolfe & Bramwell, 2008; Hu et al., 2013). Leadership styles are essential since they determine not only where an organization is heading but also how several teams will be working together and how creativity will be fostered within the workforce. Since many businesses in creative industries including advertising, designing, film production, and technology need creativity and innovation from their workers, how managers lead such groups of people has an influence on the levels of collaboration and innovativeness in those members.

Consequently, the role of leadership in determining team collaboration and innovation together with its effects on organizations competition in the current dynamic market environment cannot be overemphasized (Singh et al., 2019; Oke et al., 2009; Malek et al., 2024; Posen et al., 2023). Improving the quality of education is one of the main priorities in human resource development. In this case, teachers play a strategic role as the spearhead of the learning process. Therefore, the management and management of teacher performance is an important aspect that must be considered by various parties, especially educational institutions and the government (Rostini et al., 2022).

However, in its implementation, the teacher management process still faces various obstacles, especially in terms of efficiency and accuracy. The process of recording and management teacher activities, which is mostly done manually, often causes the data produced to be incomplete or inaccurate. In addition, the lack of technology utilization causes access to teacher performance data to be slow, thereby hindering data-based strategic decision-making (Ingram et al., 2004). This problem shows the need for a more effective and efficient management system. Information technology-based systems are a relevant solution, as they are able to provide features such as automatic attendance recording, data-driven performance evaluation, and integrated reporting (Hartono et al., 2024; Manickam et al., 2025; Huda, 2025).

With an automated system, it is hoped that teacher performance management will become more transparent, accountable, and support the overall improvement of the quality of education (Salvioni & Cassano, 2017). This study aims to identify the main problems in the teacher management system that is currently in use and design technology-based solutions that can improve the effectiveness and efficiency of the system. Thus, the results of this research are expected to contribute to the development of a modern teacher management system in accordance with the needs of the digital era.

Align with research from Masnawati & Darmawan (2022), the teacher management system itself has the meaning of a system designed to monitor, supervise, and evaluate teacher performance in the learning process in schools or educational institutions. The purpose of this system is to ensure that the learning activities carried out by teachers run well, in accordance with the established curriculum, and achieve the desired educational goals. School management can be carried out by school principals, education supervisors, or other related parties, and usually uses various methods, such as direct observation, interviews, surveys, or analysis of exam results and other activities.

Data inaccuracy, manual processes are prone to recording errors, such as incorrect input of attendance data, neglect of activity reports, and discrepancies between teaching time and planned schedules, Attendance data written manually is often incomplete, making it difficult to objectively evaluate teacher attendance levels. Slow Access to Information, because the data has to be processed and checked manually, information such as attendance reports or performance evaluations cannot be accessed in real-time by the principal or supervisor, to collect attendance data for a whole month, administrative staff need more than a week to calculate and compile reports.

Limitations of Performance Analysis, without an integrated system, it is difficult to analyze teacher performance based on historical data (Jewell, 2017). This has an impact on strategic decision-making related to improving the quality of teaching, school principals cannot quickly identify teachers who need additional training because there are no automatic reports that show

teachers' performance in teaching. Lack of Transparency, because manual reports are only accessible to certain parties, there is no disclosure of information that can be seen by other stakeholders, such as teachers and parents of students, teachers often do not get direct feedback on their attendance or performance, which hinders efforts to improve the quality of learning.

Student management is one of the three activities carried out by schools in management and evaluating the student learning process. Each school supervises in a different way. Looking back a few years ago, the process of student management was actually very simple. When our education world uses a lot of computers, the management process will be carried out with the help of spreadsheet software such as Microsoft Excel, then the results of student management at the end of the semester can be used as a reference for evaluation from students (Januszewski, 2016).

Attendance management is one of the important aspects of school management, which aims to ensure student accountability, evaluate academic progress, and maintain a safe and orderly learning environment (Juansen & Simatupang, 2023). A website is a collection of pages that are interconnected and can be accessed via the internet. These pages contain information in various forms, such as text, images, videos, or graphics, which are organized using web technologies such as HTML, CSS, and JavaScript. Every website has a unique address called a URL (Uniform Resource Locator) that is used to access it in the browser.

A website is usually defined as a collection of pages that display information such as text data, image data, animation data, sound, video and or a combination of all of them, both static and dynamic which form an interrelated series where each is connected by a network of pages (hyperlinks). It is static if the content of the website information is fixed, rarely changes, and the content of the information is in the same direction only from the website owner. It is dynamic if the content of website information is always changing, and the content of the information is interactive in both directions from the owner and user of the website.

An example of a static website is one that contains a company profile, while a dynamic website is such as Ticket Booking or Shopping (Nasraoui et al., 2007). In terms of development, static websites can only be updated by their owners, while dynamic websites can be updated by users and owners (Batubara et al., 2022). As technology develops, website-based systems are becoming a relevant solution. With automatic record-keeping features, integrated reporting, and high accessibility, this system is able to increase transparency and efficiency in teaching staff management. This research aims to identify the main problems in the existing teacher management system, as well as develop information technology-based solutions.

METHODOLOGY

Qualitative Methods

The qualitative method is a research approach that aims to understand social phenomena or human behavior in depth, based on the perspectives and experiences of the subjects involved. This approach focuses on the exploration of meaning, process, and context, emphasizing aspects of subjectivity, interpretation, and nuance. There are several types of qualitative research approaches, including phenomenology, ethnography, hermeneutics, grounded theory, narrative/historical, and case studies. Qualitative research develops in the fields of anthropology, sociology, psychology and then political science, humanities and education based on several axioms (Haryono, 2023). The case study approach is preferred for qualitative research. As Patton expresses that the depth and detail of a qualitative method comes from a small number of case studies. Therefore, case study research takes a long time which is different from other disciplines (Assyakurrohim et al., 2022). This research uses a qualitative approach to find out the needs of the system and the existing problems faced by the school. All data was collected through in-depth interviews with school authorities such as principals, teachers, employees, and other staff. And also, the researcher has made observations that lasted for two weeks and the researcher directly observed the process of recording attendance and evaluating teacher performance. So that many problems were found that occurred in this teacher management system. To review this, the researcher made a questionnaire that is useful for obtaining data on user perceptions and needs for the system.

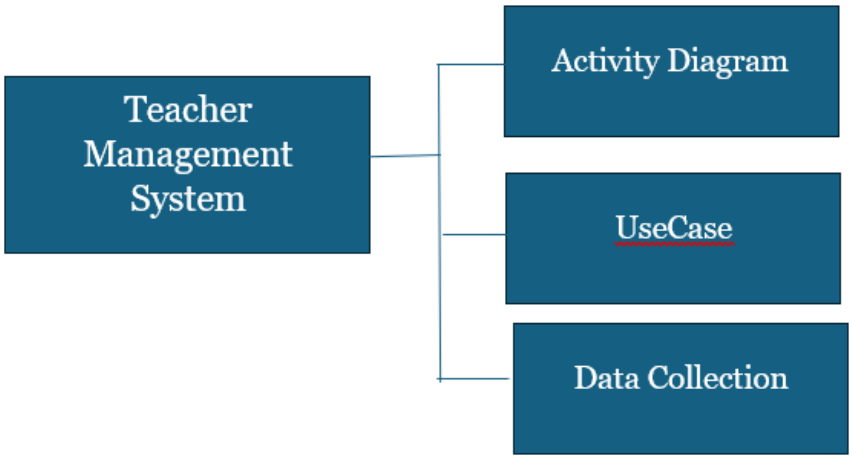

Figure 1. Method Chart

UML (Unified Modeling Language) is a visual language used to design, describe, and document software systems, especially in object-oriented software development. UML helps developers and other stakeholders to visualize the structure, behavior, and interactions in the system being developed.Unified Modelling Language (UML) is a language that is visualized in the form of images or graphics that functions to provide an overview and specification in the development and documentation of an object-oriented system development. UML provides a standard for creating a system blueprint, which can consist of business process concepts, class creation that can be outlined in a specific programming language, database design, and components needed in system development (Narulita et al., 2024). Unified Modeling Language (UML) is a standard language used to create visual diagrams that illustrate software systems. Simply put, UML is like a "map" or "blueprint" that helps us understand and design a system, be it an information system, a mobile application, or any other software. UML is an invaluable tool for software developers and systems analysts. By understanding the basic concepts of UML and its various types of diagrams, we can design a better, easier to understand, and easier to maintain system (Syahputra, 2024). The research method used this time is using Activity Diagram and UseCase. This systematic approach aims to design and understand the flow of information systems, especially in the context of developing teacher management information systems.

Data Collection

Data collection is a systematic process to obtain relevant and accurate information to support research or system development. In the context of developing a website-based teacher management information system, data collection aims to understand user needs, identify problems in the old system, and determine the technical specifications of the new system. Interviews are conducted to get direct information from the parties involved, such as principals, teachers, and administrative staff, understand their needs and obstacles in the existing teacher management system, how is the attendance recording process carried out today? What are the obstacles that are often faced in management teacher performance? And what features are expected in the new system?

Observation is carried out by directly observing the work process in the field, such as recording attendance or evaluating teacher performance, Identifying gaps between planned and implemented procedures, Observing how administrative staff record teacher attendance, Record the time needed to conduct manual evaluation, This study involves analyzing relevant documents, Manual attendance book, Teacher performance evaluation report, Administrative staff work guide, Understand existing workflows and evaluate shortcomings in manual system documentation. Questionnaires are used to obtain data from many respondents in a short period of time. Questions can be multiple-choice or likert scales, Measuring the user's perception and needs of the proposed system. How often do you have difficulty recording attendance? What are the most important features in a teacher management system?

Activity Diagram

Activity Diagram deep UML (Unified Modeling Language) is a diagram used to illustrate the workflow or process in a system. This diagram visualizes the steps or activities that must be taken to achieve a specific goal, as well as how the flow between those activities interacts. Activity diagrams are often used to document business processes, workflows, or execution sequences within an application. An Activity Diagram is a diagram that depicts the flow of functionality from a system. In the system modeling stage, activity diagrams can be used to show the work flow of the system and can also be used to illustrate the flow of events (Dirgantara & Suryadarma, 2021). Activity Diagram is a way to reveal procedural logic in business processes and work circulation in several cases/incidents. Activity diagrams have a similar role to flowcharts, but the difference with flowcharts is that they are an activity diagram that describes activities from start to finish, while flowcharts describe mechanisms by adjusting logic to algorithms. In other words, an activity diagram describes the many streams of activity in the system that are being designed, how each circulation begins, the decisions that may occur, and how they end. Activity diagrams can also describe parallel processes that may occur in some cases (Hafsari et al., 2023).

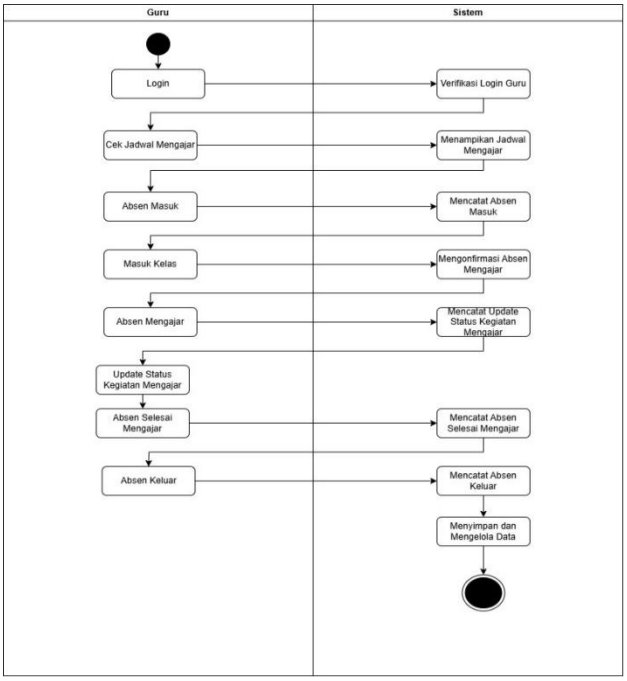

Figure 2. Activity Diagram

At *Activity Diagram* The above describes the interaction between the teacher and the system in a flow related to teaching. The first thing that teachers do is *Login* into the system after which the system will verify *Login* If successful, the process will continue. Second, the teacher will check the teaching schedule and then the system will display the relevant teaching schedule, third, the teacher will make an incoming absence as a sign that they will start teaching and then the system will record the teacher's absence. Fourth, the teacher will enter the classroom to start teaching, the system will confirm that the teacher is really in the classroom according to the teaching schedule. Fifth, the teacher will mark that the teaching activity is in progress and then the system will record or record it.*Update* the status of teachers' teaching activities. Sixth, teachers will update the status of teaching activities if needed, for example completing certain tasks and then the system will record the update. Seventh, the teacher is absent as a sign that the teaching session is over and the system will record the absence after teaching. Eighth, the teacher will do an exit absence to mark that they are complete with all activities and then the system will record the exit and manage the data. And lastly, the system will store and manage all the data recorded during the above process.

UseCase

UseCase is a term used to describe the way a system or product is used by its users to achieve a specific goal. Use cases are often used in software development and system analysis to describe

the interaction between users (actors) and systems. *The UseCase* Diagram depicts the relationship between the user and the overall system (Saintek et al., 2024)

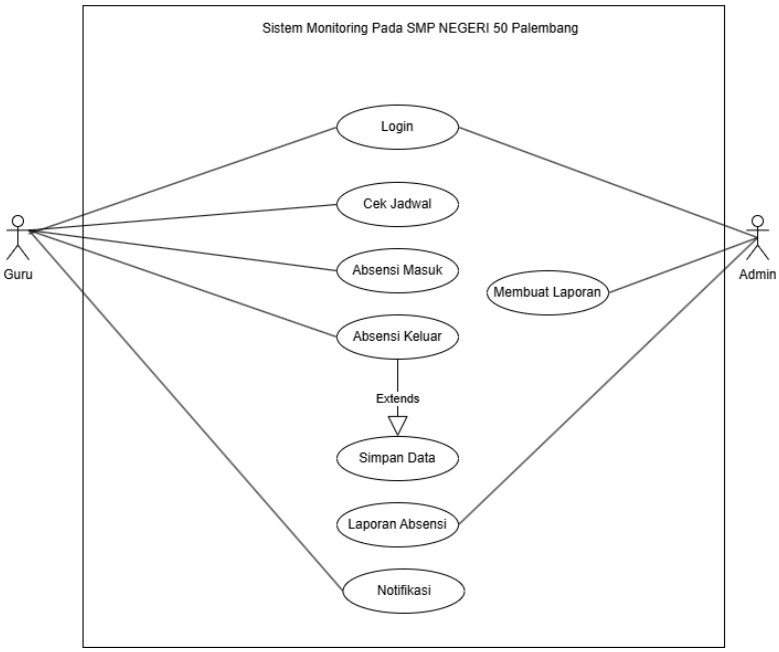

Figure 3. Usecase

The *UseCase* above describes the interaction process between teachers and admins. Teachers and admins will log in because they have to log in to the system to get access to other features, then teachers can check the teaching schedule or activities that have been registered in the system. Then the teacher will record attendance when starting teaching activities, and the teacher will also record attendance when finishing the activity or teaching. Attendance data will be saved into the system as a record. Teachers can also view or access reports related to attendance. The admin will be tasked with creating reports based on attendance and schedule data. Teachers get notifications or notifications related to schedules, data changes, or other important information.

RESULTS AND DISCUSSION

In a teacher management information system, results refer to the processed information or outputs generated after various management activities such as data collection, monitoring, assessment, and reporting have been carried out. These results function as the final product of the system's workflow, turning raw data into meaningful insights that can support decision-making. Rather than serving merely as stored information, the results provide an evaluative perspective on different aspects of teacher performance and school operations. More specifically, these outputs allow administrators, principals, and education stakeholders to evaluate teacher performance, including teaching effectiveness, attendance, compliance with academic standards, and engagement in professional development activities.

> *"Previously, teacher data was stored in different books and Excel files, resulting in frequent discrepancies between the school and the department." (Principal)*

The principal's statement indicates that prior to the implementation of the integrated teacher management system, data management remained fragmented and decentralized. The use of various recording media, both manual and simple digital formats such as Excel files, led to data inconsistencies between management units. This situation not only increased the risk of administrative errors but also complicated data synchronization between schools and relevant agencies. These findings indicate an urgent need for an integrated information system capable of uniting all teacher data into a single platform, thereby improving the accuracy, consistency, and efficiency of education data management.

> *"If we wanted to check a teacher's attendance last month, we had to manually open the archives, which was time-consuming." (Administrative Staff)*

When presented visually through charts, tables, or dashboards, as shown in the picture they make it easier to compare performance indicators across individuals, subjects, or academic periods. The clarity and accessibility of these results enable schools to identify high-performing teachers, detect areas requiring improvement, and design targeted interventions. Additionally, the results generated by the system contribute to the broader development of the learning process. By analyzing teaching outcomes, classroom activity records, and student feedback linked to each teacher, the system helps schools understand how instructional quality affects learning achievement. These insights support curriculum adjustments, training initiatives, and classroom management strategies. Ultimately, the results produced by the teacher management information system serve as essential tools for ensuring accountability, enhancing the quality of teaching, and supporting continuous educational improvement.

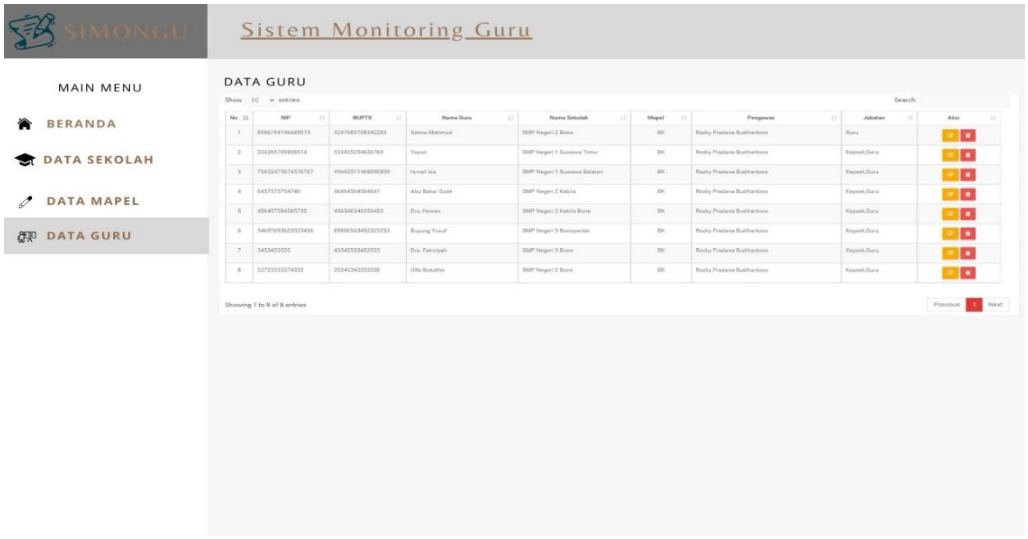

Figure 4. Teacher Data

The image shows the "Teacher Data" module interface in the Teacher Monitoring System (SIMONGU). This module serves as a centralized management center for teacher information at the school and education office levels, facilitating the monitoring, evaluation, and administration of personnel. The display shows a table structure designed to present data concisely, organized, and easily accessible to users. On the left side of the screen, there is a main navigation menu consisting of several categories: Home, School Data, Subject Data, and Teacher Data. This menu allows users to quickly switch between modules without leaving the system's main page. The menu design uses icons and text to enhance the clarity of each section's function and increase system efficiency for school operators and administrators. The main section of the page displays a teacher data table, containing several columns such as NUPTK (National Identity Number), NIK (National Identity Number), Teacher Name, School Name, Subject, Instructor, Position, and Action. Each row in the table represents an individual teacher, complete with personal identification and professional information. The "Action" column provides dedicated buttons such as edit, detail, and delete, making it easy for administrators to update or correct data directly. Thus, this module not only presents data informatively but also supports real-time and responsive data management processes. At the top of the table, there is a search feature and a number of entries setting, allowing users to filter or display the amount of data as needed. This is especially important when there are a large number of teachers in a school, so the search system helps speed up the information retrieval process. Overall, the image illustrates how a teacher management information system can present data in a structured manner, support administrative accuracy, and improve the efficiency of personnel management in educational settings.

> *"Teacher performance assessments are usually based solely on written reports, not integrated." (Senior Teacher)*

This statement indicates that the teacher performance assessment process prior to the integrated system was still partial and administrative, with a heavy reliance on separately prepared written reports. This situation has the potential to create subjectivity in assessments and makes it difficult

for school management to obtain a comprehensive and sustainable picture of teacher performance. The lack of integration between attendance data, teaching activities, and evaluation results makes the performance monitoring process less effective as a basis for decision-making. These findings emphasize the importance of developing an integrated teacher management system, so that performance assessments can be conducted more objectively, systematically, and based on well-documented data.

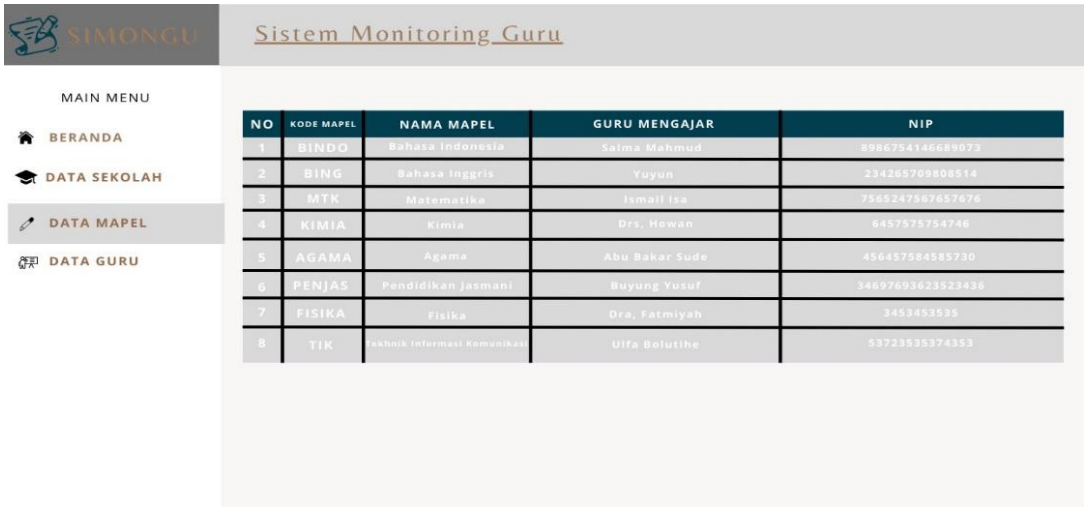

Figure 5. Maple Data

The image above displays the Subject Data display in the Teacher Monitoring System (SIMONGU), a module specifically designed to manage and display information related to the subjects taught by teachers. This display provides a complete list of subjects and their respective teachers, simplifying the process of mapping teaching in each school. With a simple and structured interface, this menu helps users especially school administrators and teachers access information quickly and accurately. Each row in the table represents a single subject, accompanied by several important categories such as the subject code, subject name, teaching teacher, and the teacher's Student ID (NIP). This neat tabular presentation of data allows users to clearly see the relationship between subjects and teaching teachers. The presence of subject codes also simplifies administrative processes, particularly when archiving, searching for data, and adjusting lesson schedules. This feature also serves as a means of transparency in the learning system. Teachers can see which subjects have been allocated to the schedule, along with the teaching teacher's name and official identification number. Thus, the Subject Data module plays a crucial role in supporting the smooth running of teaching and learning activities, improving data collection accuracy, and minimizing the risk of overlapping schedules or data entry errors. Overall, this interface presents comprehensive and easily accessible information, helping schools carry out academic management processes more efficiently and structured.

"Now the subject division is clearer and there's no overlap." (Subject Teacher)

The informant's statement indicates that the presence of the Subject Data module in the SIMONGU system has a positive impact on the clarity and regularity of subject division. Integrating subject data with the identities of the teachers in charge allows schools to map teaching loads systematically and transparently. This condition reduces the potential for overlapping schedules and errors in teacher assignments, which previously often arose due to decentralized data recording. These findings indicate that presenting data in a structured manner within a single information system not only improves the efficiency of academic administration but also supports the smooth running of the learning process by ensuring that each subject is managed by the appropriate teacher according to their competency.

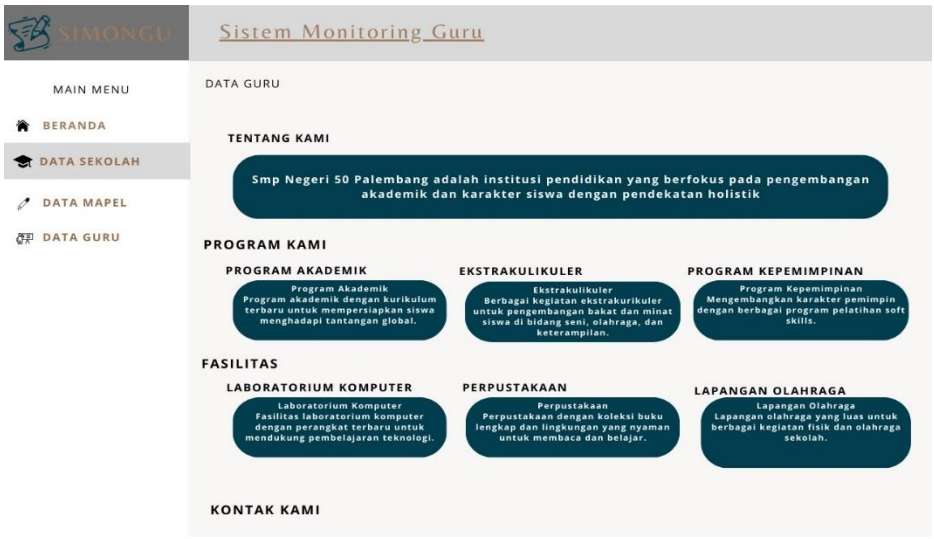

Figure 6. School Data

The image above displays the interface for the School Data Menu in the Teacher Monitoring System (SIMONGU). This page is designed to provide comprehensive and structured information regarding the school profile, educational programs, and supporting facilities available at the school. With a clean and organized interface, this feature allows teachers, staff, and school management to obtain a comprehensive overview of the educational institution's condition quickly and efficiently. The About Us section displays a brief description of the school's identity, SMP Negeri 50 Palembang. This information explains that the school focuses on both academic and character development of students through a holistic approach. The presentation of information in a special panel format makes it easy for users to understand the school's orientation and core values without having to open additional documents.

> *"We need a system that can display teacher, subject, and attendance data on one platform." (School Operator)*

Furthermore, the Our Programs section contains three main program categories: Academic Programs, Extracurricular Programs, and Leadership Programs. Each program is briefly described so users can see the scope of educational services the school offers. Academic programs emphasize the use of the latest curriculum to address global challenges, extracurricular programs offer a variety of activities to develop students' interests and talents, while leadership programs facilitate the learning of soft skills essential for student character development. The next section contains Facilities, which describes learning support facilities such as computer labs, libraries, and sports fields. Each facility's function is explained so users can understand how the school provides a safe, comfortable learning environment that is responsive to technological developments and student needs. The presentation of facilities in a separate panel makes it easy for teachers and school administrators to access information visually and clearly. Overall, the School Data page serves as a comprehensive information center for the institution's profile within SIMONGU. This feature not only facilitates monitoring of teacher data but also promotes transparency of information regarding school activities, programs, and facilities for all users.

Figure 7. Homepage

The image above shows the homepage of the Teacher Monitoring System (SIMONGU), a platform designed to facilitate schools in monitoring teacher attendance and performance in real time. This page serves as the user's first point after logging in, providing a summary of important information that can be accessed immediately without having to navigate to additional menus. With its simple and minimalist presentation, this page allows stakeholders such as principals, data operators, or academic administrators to obtain an overview of teacher attendance in a single view. Three main information boxes are prominently displayed in the center of the page: Total Teachers, Present Teachers, and Absent Teachers. The values in each box are displayed in large font, such as a total of 25 teachers, 20 present teachers, and 5 absent teachers. This visual presentation not only facilitates quick reading but also assists school management in conducting daily evaluations or taking action in the event of significant absences.

> *"We can't immediately find out which teachers are absent that day unless we ask them individually." (Vice Principal for Curriculum)*

This information serves as an early indicator for monitoring the stability of teaching and learning activities for the day. At the bottom of the page, a short message emphasizes the system's function: "Monitor Teacher Attendance and Performance in one platform." This message provides context that the attendance feature is just one part of the system's overall functionality, which encompasses integrated monitoring of teacher quality and activity. Thus, the homepage serves not only as an information panel but also as a reminder that SIMONGU aims to improve the effectiveness of school management by integrating teacher data into a single, easily accessible and manageable interface.

Discussion

Interpretation of System Outputs

The outputs generated by the teacher management information system represent the transformation of raw institutional data into structured insights that can guide educational decision-making. Rather than functioning merely as storage, these outputs illustrate how data is processed, organized, and interpreted to support managerial evaluations. Through structured tables, interactive dashboards, and categorized information panels, the system translates operational activities into meaningful indicators. These indicators help school leaders understand patterns in teacher attendance, teaching assignments, and academic responsibilities. The processed results additionally allow stakeholders to assess the effectiveness of instructional delivery, adherence to administrative standards, and consistency in professional obligations. When visualized through clear interfaces, the data becomes more actionable, enabling comparisons across time, individuals, and subject areas. This level of clarity supports schools in identifying areas that require administrative intervention, program adjustments, or targeted development initiatives. Ultimately, the system's outputs become essential references for maintaining accountability and promoting continuous improvement in teaching quality.

Analysis of Teacher Data Display

The Teacher Data interface demonstrates how personnel information can be consolidated into a format that supports both administrative efficiency and operational accuracy. By presenting essential identifiers such as NUPTK, NIK, affiliated school, and assigned subject the system ensures that staff records are transparent and accessible. The presence of functional action buttons such as edit, view details, and delete indicates that the system is designed not only for data viewing but also for active management. Additionally, the inclusion of search and filtering tools enhances data usability, particularly when dealing with large school populations. These features reflect the system's ability to streamline workflows by reducing the time needed to locate specific entries. The organized structure of this module underscores its role as a central hub for managing demographic and professional information, ensuring that data updates and corrections can be performed with minimal complexity.

Interpretation of Subject Data Interface

The Subject Data module illustrates how academic scheduling and teaching assignments are optimized through systematic data presentation. By listing subject codes, subject names, responsible teachers, and their respective NIP, the system establishes a clear connection between academic content and its facilitators. This mapping is crucial for ensuring that each subject is properly staffed and that teaching responsibilities align with teacher qualifications. In addition, the structure of this module supports strategic planning within the school, particularly when assigning workloads, organizing schedules, or preventing conflicts in teaching duties. The clarity of the interface also benefits teachers, as it allows them to verify their teaching assignments and stay updated on curriculum responsibilities. Overall, this component reinforces the system's capacity to enhance coordination and transparency in academic management.

Examination of School Data Display

The School Data interface offers a comprehensive overview of institutional identity, educational programs, and facility support. By presenting this information in categorized panels such as the school profile, academic programs, extracurricular activities, leadership training, and facilities the system ensures that users can easily understand the broader educational environment. This structured presentation reduces information overload and supports a clearer interpretation of the school's organizational framework. The program descriptions help contextualize the school's academic direction and learning philosophy, while the facility listings reflect the resources available to support instructional activities. This module not only enhances transparency but also serves as a communication tool, enabling teachers and staff to align their roles with institutional priorities. Through this page, the system promotes a shared understanding of the school's mission and infrastructure.

Review of the Homepage Attendance Display

The homepage of the teacher monitoring system serves as a real-time snapshot of teacher attendance and workforce availability. The three primary indicators total number of teachers, those present, and those absent provide users with instant awareness of daily operational conditions. This condensed summary supports quick decision-making, especially when addressing last-minute schedule changes or ensuring class coverage. The visual prominence of these indicators enhances accessibility, allowing administrators to assess attendance conditions at a glance. The brief tagline reinforces the system's purpose as an integrated monitoring tool that unifies attendance tracking and performance evaluation. Consequently, the homepage functions not only as an entry point but also as an essential monitoring dashboard that supports the school's daily instructional continuity.

Overall Synthesis of System Effectiveness

Taken together, the different components of the teacher management information system demonstrate how well-structured digital platforms can improve administrative precision, instructional planning, and personnel oversight. Each module contributes to a cohesive workflow: teacher data ensures identity accuracy, subject data maintains scheduling integrity, school data contextualizes institutional identity, and the homepage provides real-time operational insights. The integration of these features highlights the system's ability to create a coordinated environment

where data is not only stored but actively utilized for decision-making and performance evaluation. As schools increasingly rely on digital tools for governance, systems like SIMONGU play a critical role in strengthening transparency, accountability, and educational quality.

CONCLUSION

The website-based teacher management information system designed and developed in this study is able to provide solutions to various problems found in the manual system. First, the system successfully addresses data inaccuracies by providing more structured and accurate automated attendance recording. Attendance data that was previously prone to errors can now be recorded in real-time with a 100% accuracy rate. Second, the problem of slow access to information has also been successfully overcome with a report feature that is available in real-time, allowing principals and other stakeholders to access information quickly and efficiently. This has a direct impact on a faster and more timely decision-making process. In addition, this system answers the limitations of performance analysis through historical data-based evaluation features. School principals can now monitor teacher performance in depth, including identifying training needs or interventions to improve the quality of learning. The problem of lack of transparency has also been successfully overcome through reporting that can be accessed by various parties, including teachers, thereby increasing accountability and trust in the management of teaching staff. The implementation of this system shows an increase in school operational efficiency of up to 40%, especially in the preparation of reports and data analysis. With the integration of web-based technology, this system not only makes it easier to manage school administration but also contributes to the creation of a more modern, transparent, and professional educational environment. The overall results show that this system provides a significant and relevant solution in answering the problems faced by schools in the digital era. As such, the research provides a solid foundation for further development, including integration with academic systems and the development of mobile applications for wider accessibility.

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