

**THE ROLE OF THE SCHOOL PRINCIPAL IN THE IMPLEMENTATION OF  
MANAGEMENT INFORMATION SYSTEMS TO IMPROVE EDUCATIONAL  
SERVICES AT SMP NEGERI 1 TIGI DEIYAI DISTRICT, CENTRAL PAPUA  
PROVINCE**

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**ABSTRACT**

The aim of this research is to analyze the role of school principals in implementing Management Information Systems (SIM) to improve educational services, namely managing SIM to support educational administration, providing information facilities, assigning teachers and/or educational staff, and reporting school information data. Apart from that, to analyze the obstacle factors for school principals in implementing SIM at SMP Negeri 1 Tigi, Deiyai Regency, Central Papua Province. This research uses a qualitative descriptive approach to a case study design, with data sources namely school principals, teachers, students and supervisors. Data collection techniques using in-depth interviews, participant observation, and documents. Researchers as the main instrument are supported by interview guidelines, observations and document checklists. Data validity techniques use data credibility, namely extending observation time, triangulation and peer discussion. The data was analyzed qualitatively according to Miles and Huberman, namely with the stages of data reduction, data presentation and conclusions. The results of this research show that the Principal of SMP Negeri 1 Tigi has played a role in implementing SIM to improve educational services in various forms of service, including (1) managing SIM to support educational administration such as the DAPODIK (School Management, GTK and student management) data collection system, (2) assign a teacher to manage the information system so that data is always updated and communicated on student and teacher information boards, (3) provide information facilities in the form of computers assisted by the central regional government and procurement of laptops through regular BOS funds, (4) report school information data to the Department Education in the form of monthly school reports, updating DAPODIK for data collection needs by the central and regional governments, and (5) Obstacles in implementing SIM, especially internet access which is unstable and there are no special staff (operators) for schools, so that until now there has been no use of the school website. Maximum.

**Keywords:** Role, School Principal, Management Information System, Educational Services

**1. INTRODUCTION**

In the current era of globalization, the implementation of Management Information Systems (MIS) is very important and needed by every institution, including social, political, economic, and educational institutions. Educational regulations have mandated every educational unit leader to implement SIM in the management of their institution (PERMENDIKNAS Number 19 of 2007). This decision is intended to improve services, serving as an indicator of ensuring the quality of education. The urgency of SIM development in educational institutions is paramount because in facing global competition, educational institutions are required to provide information more

quickly, accurately, and conveniently, which is part of service quality, thereby gaining a competitive advantage.

Several previous study results have found that to improve educational services, school principals need to implement SIM. The results of previous research provide empirical evidence that the application of SIM will help optimize educational services in schools. For example, a study by Arina et al. (2023) reported that the use of SIM is most beneficial for developing the quality of teaching, including managing school institutions, compiling data for all students, academics, teacher and staff data, financial data, and library systems. Furthermore, it aids in developing the quality of learning in schools, such as designing lessons, creating learning materials, supervising learning, and assessing learning. Thus, by implementing SIM in schools, information can be managed efficiently and orderly, facilitating the dissemination of information to other stakeholders.

The results of the research above are consistent with Sonia's study (2020), which demonstrated that the implementation of SIM education at MAN 2 Ponorogo involves various application systems, including teaching and educational staff services through the Ministry of Religion's Educator and Education Personnel Information System application (SIMPATIKA), e-learning applications, BNI eduPATROL applications, fingerprint applications for both teachers and students, and web-based applications for student admissions (PPDB). Additionally, research conducted by Mutamimah & Luqman (2023) expands on the use of SIMs, including teacher fingerprint applications and school Instagram applications. Various methods can be employed to optimize educational services, including school principals' ability to apply SIM for various interests and needs in their schools. SIM is an integrated system application that provides information to support the operational activities, management, and decision-making functions of an organization.

Previous research by Mustofa & Andi (2020) found that SIM is utilized in the teaching and education service system. Educators and education personnel are managed and empowered through SIMPATIKA (Ministry of Religion Information System for Educators and Education Personnel). SIMPATIKA services are highly beneficial in managing teaching and educational staff, although they have several weaknesses that must be addressed. Using a SIM is not merely a necessity. To realize the vision and improve the quality of teaching and educational staff in accordance with educational standards, the use of a SIM is not optional but a mandatory step in fulfilling its mission. SIM maintenance must be prioritized to serve educators and educational staff, thus realizing the quality of teaching and educational staff in alignment with educational standards. Even the research results of Sianturi et al. (2023) indicate that SIM in Education Quality Management (SIMDIK) accelerates the delivery of information, supports decision-making, and enhances the quality of education. These findings underline the crucial role of school principals in implementing SIM to facilitate educational services in schools. The maximum educational services provided by school principals through the implementation of SIM will positively impact efforts to enhance the quality of education.

The results of a previous journal study by Sutarto & Ines (2023) demonstrate that the application of SIM in building educational quality focuses on increasing the effectiveness of the learning process and academic management. Similarly, Dwi et al. (2024) address the implementation of SIM in learning and its associated obstacles. Meanwhile, this research focuses on the role of school principals in implementing SIM to improve educational services, particularly in terms of managing SIM to support educational administration, providing facilities, assigning teachers and/or educational staff, and reporting information. Previous research employed library research, whereas

this study adopts a qualitative descriptive approach. Thus, the difference between this research and previous studies (Sutarto & Ines, 2023, and Dwi et al., 2024) lies in the focus and research approach.

Based on this background, the aim of this research is to analyze the role of school principals in implementing SIM to improve educational services (managing SIM to support educational administration, providing facilities, assigning teachers and/or educational staff, and reporting information) at SMP Negeri 1 Tigi Regency Deiyai, Central Papua Province.

## 2. METHODS

This research employs a descriptive qualitative approach. The researchers seek to empirically understand the role of school principals in implementing SIM to enhance educational services until reaching a level of confidence and data saturation. They aim to create a comprehensive picture, examining words and detailed reports from informants' perspectives, and conducting studies in natural settings. The research involves an in-depth exploration of programs, process events, and activities of one or more individuals, collecting detailed data using various data collection methods over a continuous period.

To obtain data and information regarding the role of school principals in implementing SIM to improve educational services in accordance with PERMENDIKNAS Number 19 of 2007, which includes managing SIM to support educational administration services, assigning teachers to manage the information system, providing information facilities, and reporting school information data, the researchers also investigate the obstacles to implementing SIM to improve educational services. The data sources in this research comprise school principals, subject teachers, teachers and school operators, students, and school supervisors. Data collection techniques include participatory observation, in-depth interviews, and documentation checking. The researchers serve as the main instrument supported by interview guidelines, observations, and document checklists. Data validity is tested using credibility techniques such as extending observations, peer discussions, and triangulation.

For data analysis, the researchers utilize the Miles and Huberman interactive analysis model, which involves data reduction, data display, and drawing conclusions/verification. These three methods are interconnected and form the flow of data analysis activities aimed at deriving meaning (Sugiyono, 2018).

## 3. RESULTS AND DISCUSSION

### 3.1 Result

Based on the results of data analysis, the findings of this research indicate that the principal of SMP Negeri 1 Tigi, Deiyai Regency, Central Papua Province, has played a role in implementing SIM to improve educational services in various forms, including:

1. Managing SIM to support educational administration, such as the DAPODIK data collection system (School Management, Kindergarten Teachers and Education Personnel (GTK), and students).
2. Assigning a teacher to manage the information system to ensure that data is always updated and communicated through student and teacher information boards.
3. Providing information facilities in the form of computers assisted by the central regional government and procurement of laptops through regular BOS funds.

4. Reporting school information data to the Education Office, including monthly school reports and updating DAPODIK for data collection needs by the central and regional governments.
5. Facing obstacles in implementing SIM, especially unstable internet access and the absence of special staff (operators) for schools, resulting in suboptimal utilization of the school website.

In general, the head of SMP Negeri 1 Tigi, Deiyai Regency, Central Papua Province, has played a significant role in implementing SIM to respond to changes and developments, particularly in improving educational services. Despite being situated in the newly expanded province area in Papua, this school has adapted to developments within certain limitations. School principals have played a crucial role in implementing SIM through various forms of service. Firstly, they manage SIM to support educational administration, aligning with the standards outlined in PERMENDIKNAS Number 19 of 2007, which emphasize program planning, work plan implementation, supervision and evaluation, management information systems, and special assessments. As the person overseeing the school's operations, the principal needs to effectively manage SIM for improved school administration.

Studies conducted by Haryanto & Rustan (2023) highlight the importance of employing appropriate management information systems to achieve effective and efficient education management and administration in line with current developments. The implementation of SIM in schools has various impacts, ranging from handling administrative tasks related to student registration and material management to facilitating lecture activities, resource management, and administrative decision-making processes more efficiently and accurately through information systems.

Additionally, Nuraisah et al. (2021) emphasize the obligation of school principals to manage SIMs for various school development purposes. Therefore, it is essential for every school principal to possess competence in SIM management through participation in workshops, seminars, and internet-based activities. Knowledge, skills, and abilities (KKS), including SIM management, are recommended competencies for every prospective school principal.

Secondly, a teacher is assigned to manage the information system to ensure that data is always updated and communicated on student and teacher information boards. Due to the absence of a dedicated officer (educational staff as a school operator), the principal designates one of the teachers to undertake additional responsibilities alongside their teaching duties as a school operator responsible for managing the school's database. School operators have specific Duties and Functions (TUPOKSI) as custodians of school data, encompassing the management of student data, teacher information, educational data, and school finances. Given the diverse nature of data handled by school operators, it is crucial to enhance their competence in maximizing performance in school data management. Increasing the competence of school operators is often integrated into a series of training programs that also involve enhancing the skills of teaching staff. These findings align with the perspective of Maria & Mole (2023), emphasizing the principal's responsibility to appoint a teacher or staff member to handle SIMs for various school development purposes, with the designated personnel expected to possess computer operation skills acquired through training. Thirdly, information facilities are provided in the form of computers, supported by the central regional government, and laptops procured through regular BOS funds. This aligns with government policy outlined in the Technical Instructions (JUKNIS) through PERMENDIKBUD Number 1 of 2018, permitting the use of BOS funds for procuring computers and laptops. Such policies enable schools to implement SIM to serve the educational community efficiently. These multimedia devices facilitate various academic and non-academic activities, particularly in accessing the internet for rapid information retrieval. Additionally, the actions taken by the school

principal are consistent with PERMENDIKBUD RISTEK Number 47 of 2023, which emphasizes the implementation of transparency in providing access to public information related to education using diverse communication channels.

Computer technology represents a broad, complex, and comprehensive concept, offering new capabilities to enhance students' abilities. Computers enable rapid and easy access to vast amounts of information from around the world. The principal's initiatives support faster and more effective service delivery in various operational aspects of the school and related activities. The school education system aims to equip students with the readiness to face the future and tackle the challenges of globalization. Continuous efforts to innovate and improve the quality of education include leveraging computer technology in teaching and learning processes. Utilizing computer technology makes the learning process easier and more engaging, allowing teachers to create and present teaching materials, access information through e-learning platforms, and facilitate computer-based learning, thus enhancing the efficiency and effectiveness of various school operational tasks.

Fourthly, reporting school information data to the Education Office entails submitting monthly school reports and updating DAPODIK for data collection needs by both central and regional governments. The school principal is obligated to compile regular reports by consistently collecting data. Each school must provide monthly reports on its condition, including student and teacher/educational personnel data, school infrastructure status, and attendance lists for teachers and staff, by updating DAPODIK. The principal of SMP Negeri 1 Tigi, Deiyai Regency, Central Papua Province, has utilized a SIM for this purpose. Furthermore, these actions align with PERMENDIKBUD RISTEK Number 47 of 2023, Chapter V, Article 22 point e, which mandates that the school principal remains accountable for the implementation of educational activities to relevant parties.

The latest data reported by school principals serves as valuable information for school superiors, such as the Education Office, related ministries, the School/Madrasah Accreditation Board (BAN-S/M), and central and regional governments, aiding in planning and decision-making processes. For instance, BAN-S/M can utilize the data from a school's DAPODIK for accreditation purposes, potentially resulting in the school being accredited with a B rating. This underscores the pivotal role of the school principal in implementing SIM to regularly report updated information through the school's DAPODIK.

These findings align with the perspective of Afif (2020), emphasizing the importance for school principals to continually update student, teacher, educational staff, infrastructure, and school identity data in DAPODIK for data collection purposes by governmental entities such as the Dinas Education. The principal's diligent reporting of information, as suggested by Afif (2020), ensures that various stakeholders remain informed about the school's progress and can identify any obstacles or limitations it faces in meeting its daily needs. Thus, schools are expected to provide reports on their current conditions, enabling the government and other stakeholders to plan and formulate policies in accordance with the school's needs and circumstances.

Fifthly, obstacles to implementing a SIM include unstable internet access and a shortage of specialized school personnel (operators). Handling SIM responsibilities is typically assigned to one of the teachers, who is tasked with managing SIM alongside their primary teaching duties. However, teachers often have primary responsibilities that demand their time, leading to less focus on SIM management and resulting in suboptimal utilization of the school website. These findings are consistent with research by Mutmainah (2023), which highlights limited human resources (HR) as a barrier to implementing an education management information system. Similarly,

Purwaningsih's study (2022) identifies human resources and technical errors, along with student challenges in participating in learning through such applications, as obstacles to implementing an education management information system. Professional human resources play a crucial role in ensuring effective school operations, as educational staff designated as school operators possess educational backgrounds, experience, and skills in Communication Technology and Information (ICT). The availability of such personnel not only enhances school operations but also assists the government and communities in disseminating information about schools.

The main inhibiting factor in the problem of an unstable internet network is its inconsistency, fluctuating between good and bad connectivity. It is hoped that the regional government, particularly the Education Service, will collaborate with the KOMINFO Service to propose BAKTI AKSI assistance from the central government. Such assistance would enable schools to manage SIMs more effectively and ensure smooth operation. Additionally, in collecting data for students, teachers, and education personnel, delays are sometimes encountered. To address this issue, the school principal allows additional time before the data update deadline expires, emphasizing flexibility in the process.

#### 4. CONCLUSION

Based on the results of previous research and discussions, it can be concluded that the Principal of SMP Negeri 1 Tigi has played a significant role in implementing SIM to enhance educational services through various means, including: (1) managing SIM to support educational administration services such as the DAPODIK data collection system (School Management, GTK, and students), (2) assigning a teacher to manage the information system to ensure data is consistently updated and communicated on student and teacher information boards, (3) providing information facilities in the form of computers assisted by the central regional government and procurement of laptops through regular BOS funds, (4) reporting school information data to the Education Office in the form of monthly school reports, updating DAPODIK for data collection needs by the central and regional governments, and (5) addressing obstacles in implementing SIM, particularly unstable internet access and the lack of specialized personnel (operators) for schools, resulting in suboptimal utilization of the school website to date.

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