

Digital Transformation of the New Student Admission System: The Role of Teachers and Education Staff in Improving the Quality of Education Services in the Era of Society 5.0

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ABSTRACT

Objective: Digital transformation in education has significantly changed the role of teachers in the learning process and education management. This research aims to analyze the role of teachers in the digital transformation of education and identify changes in the function of teachers in the face of the digitalization of the education system. **Method:** The method used is Systematic Literature Review (SLR) by examining various relevant scientific articles, then selection, analysis, and synthesis of findings to obtain a comprehensive picture of the role of teachers in the context of digital education. **Results:** The results of the study show that the role of teachers has shifted from conveying information to facilitating learning that is adaptive, innovative, and student-centered. Teachers not only play a role in technology-based learning, but also in supporting the implementation of digital education systems such as the New Student Admission System (In Indonesia: SPMB) through socialization, mentoring, and information facilitation to students and parents. In addition, digital transformation requires increasing teachers' digital competence and readiness to face rapid system changes, although there are still challenges such as digital literacy gaps and limited infrastructure. **Novelty:** The novelty of this research lies in the integration of the study of digital transformation of education with the implementation of the New Student Admission System (SPMB), which not only focuses on the learning aspect, but also on the strategic role of teachers and education personnel in improving the effectiveness, transparency, and quality of digital-based education services.

INTRODUCTION

Digital transformation is an important part of the development of education in the era of Society 5.0, where technology integration aims to improve the quality of life, including in the field of education [1]. In this context, education is not only seen as a process of knowledge transfer, but also as a public service that must be adaptive to the needs of society. Digitalization drives changes in the management of the education system, interaction patterns, and increased efficiency and openness of services [2]. In addition, the use of information systems has been proven to improve service quality through accessibility, speed, and transparency of data management [3]. Therefore, digital transformation is an important prerequisite for realizing quality education services.

One of the concrete implementations of digital transformation is the implementation of a technology-based New Student Admission System. SPMB as the initial gateway for student management, plays a strategic role in determining the quality of educational inputs which includes planning, process, and evaluation of the student admission system [4]. From the perspective of education management, SPMB is not only administrative, but also part of services that affect the quality and competitiveness of

schools [5]. However, the reality on the ground shows that its implementation still faces challenges, especially related to the effectiveness of the zoning system. Although designed for equal access to education, zoning has not been fully able to ensure equitable distribution of the quality of educational services, this is because the zoning system emphasizes geographical proximity more than academic readiness, so it has the potential to cause inequality in quality between schools [6]. This shows that digital transformation is not enough to be carried out only through system and technology updates, but also requires the readiness of superior human resources in running digital-based services.

SPMB's digital transformation not only includes the use of technology as an administrative tool, but also encourages changes in the role of education actors, especially teachers and education staff. Teachers no longer only conduct learning in a digitized system, they now also act as facilitators of educational services that are tailored to the community and the needs of students [7]. This is in line with the demands of teacher professionalism in the digital era, which requires mastery of pedagogic competencies and the ability to adapt to changes in technology and education systems [8]. On the other hand, education personnel are key actors in the management of digital-based information systems and services, which have been proven to improve the effectiveness, accessibility, and quality of educational services [9]. Thus, the success of digital transformation in SPMB is highly dependent on the readiness and collaboration between teachers and education staff in managing educational services in an integrated manner.

According to several studies, digital transformation in education is now a strategic necessity to face the dynamics of the Society 5.0 era, which demands the integration of technology with human needs [10]. Education systems that are still conventional tend to be unable to respond to the demand for fast, transparent, and data-based services. In this regard, digitalization helps to better manage education, strengthen the integration of information systems, and help make more accurate decisions based on the needs of service users [3]. The ability of educational institutions to manage the system in a flexible and quality-oriented manner in the long term is also closely correlated with the improvement of the quality of educational services [5]. Thus, digital transformation is a key element in building an education service system that is not only administratively effective, but also responsive to the demands of society in the digital era.

Various researchers have seen digital transformation in education from various perspectives, such as the use of technology in learning, improving the quality of education, and strengthening the professionalism of teachers in the era of Society 5.0. In addition, many studies emphasize the role of teachers in creating an adaptive learning environment as a strategy to improve the quality of schools. However, the research is still a small part and has not comprehensively linked the digital transformation in the New Student Admission System (SPMB) with how teachers and education staff play a role in improving the quality of educational services.

Therefore, this research is important because it aims to analyze how digital transformation in SPMB reconfigures the role of teachers and education personnel from administrative functions to strategic actors in improving the quality of educational

services that are adaptive and oriented to the needs of society in the era of Society 5.0. Using the Systematic Literature Review (SLR) approach, this study is expected to provide a comprehensive synthesis of the relationship between digitization of SPMB, the role of education actors, and its implications for improving the quality of education services.

RESEARCH METHOD

Research Methods

This study uses *the Systematic Literature Review (SLR)* method to review various studies relevant to the research topic in a systematic and structured manner. The SLR method is used to identify, evaluate, and synthesize the results of previous research so that valid and comprehensive information is obtained.

The source of research data is obtained from scientific articles accessed through Google Scholar and the Publish or Perish application as a search and reference management tool. The article search process is carried out using keywords that are appropriate to the research topic. The articles used are relevant national and international journals, can be accessed in full *text*, and published in a certain range of years according to research needs.

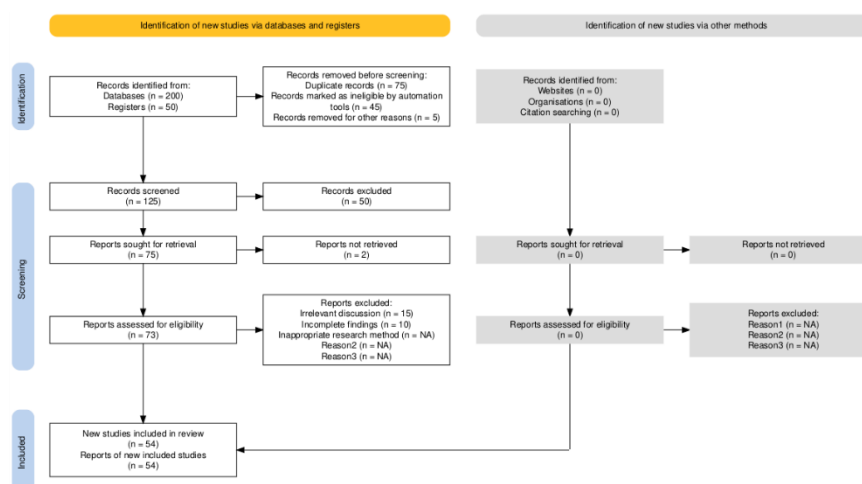


Figure 1. PRISMA flowchart from this study.

Based on the results of the literature search, 250 articles were obtained. Furthermore, an identification and screening process is carried out based on the suitability of the title, abstract, research topic, and completeness of the content of the article. In the initial stage, a number of articles were eliminated due to data duplication, topic mismatches, and other reasons, resulting in 125 articles that were worthy of further review.

The next stage is an in-depth analysis and synthesis of the articles by reading the content of the research as a whole. In this process, several articles were reissued because the discussion was irrelevant, the research findings were incomplete, and the research methods were not suitable. After going through all stages of selection, 54 articles were obtained that met the criteria and were used as the main source in this study.

The article selection process in this study refers to the PRISMA (*Preferred Reporting Items for Systematic Reviews and Meta-Analyses*) guidelines to ensure that the study process is carried out in a systematic, transparent, and structured manner.

RESULTS AND DISCUSSION

Results

Based on the results of a systematic review of 54 articles consisting of primary and secondary sources, it was found that the role of teachers in the digital transformation of education has undergone a significant shift from just conveying information to being adaptive learning facilitators and oriented to the needs of students. Most primary research shows that teachers are strategically positioned to integrate technology into the learning process, not only as an aid, but as a medium to improve the quality of student interaction and understanding. This transformation requires teachers to be able to manage digital-based learning that encourages critical, creative, and collaborative thinking skills in accordance with the demands of the 21st century. In addition, the results of the study also show that technology does not replace the role of teachers, but rather strengthens their pedagogical function in shaping students' character and competencies holistically. Thus, digital transformation places teachers as the main actors in bridging the gap between technological developments and humanistic learning needs [11], [12].

Research by [13] which examines the policy of access to education through the SPMB system in Wonogiri Regency, shows that the digital transformation in the New Student Admission System (SPMB) is able to increase the effectiveness of education services through web-based systems and geo-tagging. The research also explained that teachers have an important role in socializing and assisting the community regarding the use of the digital-based SPMB system. Teacher involvement helps students and parents understand the registration process more easily and effectively.

Meanwhile, another study by [14] at MTs (Madrasah Tsanawiyah) Ar Ruhaniyyah Cikampek showed that digitalization of online-based education management can improve service efficiency, data accuracy, and transparency of educational services. The research emphasizes that the success of digital transformation is not only influenced by the technology used, but also depends on the readiness of teachers and education staff in operating digital systems and technology. Teachers and education staff play an important role in accompanying students and guardians during the educational service process.

Furthermore, the findings of the study by [15] at MI Terpadu Ar Rifqi showed that the digitization of the New Student Admission System (SPMB) has a positive impact on the performance of teachers and education staff (*tendik*) in managing school administration. The implementation of the Management Information System (SIM) through online registration, WhatsApp confirmation, and digital management of prospective student data helps teachers and administrative staff work more effectively and efficiently. The process that was previously carried out manually so that it was prone to errors, has now become more structured, thereby reducing the risk of data recording errors and accelerating services to prospective students and parents.

Discussion

Digital Transformation in Education

Digital transformation in education is a process of changing the education system as a whole through the use of digital technology in learning, administration, and management activities of educational institutions to improve the quality, efficiency, and accessibility of educational services [16]. This process is not only related to the use of digital devices or applications, but also includes changes in mindsets in the implementation of education, strengthening digital literacy, and forming ethics in the use of technology in the educational environment. The implementation of digital transformation aims to improve the quality, efficiency, and accessibility of educational services at various levels of education. This process shows that technology is no longer a complement, but has become an essential part of the implementation of modern education [17].

From a conceptual perspective, digital transformation is seen as an effort to modernize education that integrates digital technology into various aspects of education delivery. Digital transformation is a comprehensive update in education governance through the application of digital technology to realize a more efficient, transparent, and student-oriented system. In line with that, the importance of matching educators' digital competencies with the use of technology so that the learning process can take place optimally [18]. Meanwhile, digital transformation includes the integration of technology in curriculum, learning processes, and school management to create an educational environment that is innovative and adaptive to the times [19]. Thus, digital transformation in education can be understood as a process of updating the education system through technology integration, strengthening the digital capacity of educational resources, and forming a digital culture that supports the creation of innovative, effective, and relevant educational services to the demands of the digital era.

Student Management

Student management is one of the important components in education management which focuses on managing all student activities from the admission process to the completion of studies at educational institutions. Therefore, student management has a strategic position in the implementation of education in schools. The implementation of student management is carried out systematically through planning, organizing, implementing, and supervising activities to support the achievement of educational goals effectively and efficiently [20].

According to Knezevich, student management is a form of service that focuses on organizing, supervision, and individual services to students, including developing their abilities, interests, and needs until reaching maturity during education. This definition shows that student management is not only related to administrative aspects, but also concerns the development of individual potential of students. Student management is also a process of managing all activities related to students to support the achievement of educational goals effectively and efficiently [21]. Meanwhile, another opinion

explained that student management includes the entire process of fostering students from the admission stage until students complete their education [22].

Based on this view, student management can be understood as a management process that is not only oriented to student administration, but also to coaching, developing potential, enforcing discipline, and fulfilling the individual needs of students as a whole. With good management, educational institutions can create a conducive learning environment and support the development of students optimally [23]. In its implementation, the management of students also needs to consider the psychological conditions and characteristics of the individual so that the policies implemented are in harmony with their developmental needs [24].

New Pupil Sistem Penerimaan Siswa Baru (SPMB)

The New Student Admission System (SPMB) is a series of mechanisms implemented by educational institutions to carry out the process of accepting new students in a planned, systematic, and sustainable manner in each school year. In the context of education management, SPMB is a strategic initial stage because it affects the quality of student input and the smooth implementation of education in schools. Therefore, the implementation of SPMB needs to prioritize the principles of objectivity, transparency, accountability, and effectiveness to ensure equitable access to quality education [25].

SPMB is defined as a new student admission management system designed to expand access to education, increase transparency, and realize equitable distribution of learning opportunities through a structured selection mechanism [26]. SPMB is also a series of activities for the admission of new students which includes the planning, organizing, implementing, and evaluation stages so that the admission process is in accordance with the school's capacity. Meanwhile, in another view, SPMB is a process of selection and administration of student admissions that is carried out systematically through the determination of requirements, admission capacity, schedules, and technical procedures for implementation [27].

The development of information technology has also encouraged changes in the implementation of SPMB from the conventional system to a digital system that allows the registration process, document verification, and announcement of selection results to be carried out online. The use of this technology provides easy access, increases administrative efficiency, and strengthens transparency in the selection process. Thus, SPMB can be understood as a system for admitting new students that integrates aspects of education policy, administrative management, and digital technology in order to realize effective, fair, and accountable educational services [28].

The Role of Teachers in the Digital Transformation of Sistem Penerimaan Siswa Baru (SPMB)

The results of the synthesis show that the role of teachers as digital facilitators is the dominant theme in most of the studies analyzed. Teachers are required to be able to use various digital learning platforms and media innovatively to create interactive and meaningful learning [29], [30] In addition, the results of the analysis also show that the

digital transformation of education requires systemic support that includes policies, education management, and adequate infrastructure. Teachers cannot carry out their roles optimally without the support of educational institutions and the government.

Several studies show that good digital-based education management can improve the efficiency, transparency, and quality of educational services. Therefore, digital transformation must be understood as a process that involves various parties in the education system. With this support, teachers can more easily integrate technology in educational institutions [31], [32]. Teachers also need to have the ability to collaborate and communicate effectively in a digital environment. Digital transformation requires a paradigm shift in the role of teachers who are more adaptive and innovative. [33], [34].

The results of the synthesis also show that improving teachers' digital competence is a key factor in the success of digital transformation of education. Findings from various primary studies show that interventions such as workshops, training, and professional development programs can significantly improve teachers' ability to utilize technology. The digital competencies in question include data literacy, technological literacy, and human literacy which are the basis for facing the Society 5.0 era. With the increase in these competencies, teachers are not only able to use technology, but also integrate it effectively in the learning process. Therefore, the development of teachers' digital competencies must be a priority in education policy [35], [36].

In addition to the learning context, the results of the study also show that the role of teachers extends to the managerial and administrative realms in the digital-based education system, including in the implementation of the New Student Admission System (SPMB). Digital transformation in SPMB has driven significant changes in the mechanism of educational services, such as the use of web-based systems, digitization of data, and the use of geo-tagging technology aimed at increasing the effectiveness, transparency, and efficiency of the process of accepting new students. In this context, teachers have an important role in supporting the implementation of the system through socialization, mentoring, and information facilitation activities to students and parents so that they can understand the applicable procedures and mechanisms [13].

Other findings show that the success of digitizing education management does not only depend on the sophistication of the systems used, but also is highly determined by the readiness of human resources, especially teachers and education personnel, in operating and managing the technology. Research by [14] It shows that the digitization of online-based education services is able to improve service efficiency, data accuracy, and transparency of education administration. However, this effectiveness can only be achieved if teachers have adequate digital literacy skills and are able to adapt to rapid system changes.

Furthermore, the digitization of education management also has an impact on improving the work efficiency of teachers and education personnel, especially in data management and administrative services [12]. The use of management information systems, online registration, and communication with digital media has been proven to be able to reduce recording errors, speed up the service process, and improve the

accuracy of student data. Thus, the success of digital transformation is not only determined by the availability of technology, but also by the readiness of teachers and education personnel in operating and optimizing digital systems in educational services.

Overall, the results of the study show that the digital transformation of education places teachers as the main actors who have a multidimensional role, not only in pedagogical aspects, but also in managerial, social, and technological aspects. Teachers act as a liaison between digital systems and users, as well as facilitators who ensure that technology can be used effectively, efficiently, and inclusively. Thus, the success of digital transformation in education is highly determined by the ability of teachers to adapt, innovate, and integrate technology into all aspects of educational services [33].

The Role of Education Personnel in the Digital Transformation of Sistem Penerimaan Siswa Baru (SPMB)

Digital transformation in the New Student Admission System (In Indonesia: SPMB) has brought structural changes to the role of education personnel (tendik) in the education unit environment. This change not only touches on the technical aspect, but also shifts the work orientation of staff from the original conventional administrative to more adaptive to information technology. In this context, staff are required to be able to interact with digital systems, manage information quickly, and ensure the accuracy of the data used in the student admission process. Therefore, the role of staff can no longer be seen as a mere supporting function, but as an important part of the digital-based education service system. This shift also shows that digital transformation has an impact not only on the system, but also on the work structure and competence of human resources in schools.

In the implementation of student management, the involvement of education personnel is increasingly widespread and includes various strategic stages that are integrated with each other. Staff not only carry out operational functions, but also contribute to the planning, implementation, and evaluation process based on digital systems. This is in line with research findings that show that student management is carried out systematically and involves various elements of the school in a participatory manner [37]. This involvement shows that staff have a role in maintaining the continuity of the student management process, starting from the admission stage to the sustainable management of student data. Thus, staff are an inseparable part of the student management cycle that has been digitized and integrated.

Conceptually, the development of modern student management places information systems and data management as the main elements in increasing the effectiveness of educational services. The use of technology allows the administrative process to be more efficient, transparent, and based on accurate and real-time data [38], [39]. In this framework, education personnel play the role of the main manager of the digital administrative system that ensures that the entire process runs in accordance with the set standards. This view is supported by studies that affirm that student management is not only administrative, but also strategic in supporting the success of education as a whole [40]. Therefore, staff have broader responsibilities, not only in administrative

management, but also in supporting data-driven decision-making in the school environment.

In the context of digital-based SPMB implementation, education personnel have operational and strategic responsibilities in running the system as a whole. This role is not only limited to technical execution, but also includes the management of integrated processes from start to finish. Tendik is the main actor in ensuring that the digital system used can run in accordance with the procedures and standards that have been set [41]. This involvement shows that the success of SPMB digitization is not only determined by technological sophistication, but also by the operational capacity of education personnel in managing the system effectively [42].

In the planning stage, education personnel play a role in preparing various supporting components of the digital SPMB system, including regulating the registration flow, managing quotas, and preparing a system-based selection mechanism. This planning is not carried out separately, but rather becomes part of a structured and systematic management of students, as shown in the research [37]. In practice, the planning process also considers aspects of school needs, capacity, and readiness of available facilities and infrastructure. In addition, the conceptual study emphasizes that planning in student management is a crucial stage that determines the success of the next process, especially in the context of technology integration [40]. Thus, staff play a role in ensuring that the SPMB system is designed adaptively and in accordance with the needs of the institution.

At the implementation stage, education personnel function as the main operators who run the digital SPMB system directly. This task includes managing the online registration process, verifying prospective student documents, validating data, to input and processing information in the system [43]. Research shows that the implementation of good student management involves coordination between various parties, including education personnel who are responsible for administration and operations [44], [45].

Furthermore, at the supervision and evaluation stage, education personnel play a role in monitoring the performance of the system and identifying various obstacles that arise during the implementation of SPMB. This process includes evaluation of the accuracy of the data, the smooth running of the system, and the effectiveness of the procedures that have been implemented [46]. From a learner's management perspective, evaluation is an important part of not only assessing results, but also being the basis for continuous improvement [37]. Systematic evaluations allow schools to improve the quality of services and adapt the system to the needs of future users. Thus, staff play a role as quality control in the digital SPMB system.

In addition to carrying out operational functions, education personnel also have a responsibility to maintain the integrity of data and the accuracy of information submitted to the public. In a digital system, data is the main component that determines the quality of service, so errors in data management can have an impact on public trust. Research shows that the online PPDB system is able to increase transparency and accountability, but still requires careful data management by education personnel [47]. On the other

hand, challenges such as limited infrastructure and digital literacy can also affect the operational effectiveness of the system [48]. Therefore, the role of staff in ensuring data validity and clarity of information is very important in supporting the credibility of digital-based education services.

Overall, the operational role of education personnel in the management of digital SPMB reflects a function that is not only administrative, but also strategic in maintaining the sustainability of the system. Staff are the main driver in connecting policies, technology, and implementation in the field. Their involvement in each stage shows that the digital transformation of education requires the support of competent and adaptive human resources. Thus, optimizing the operational role of staff is one of the main keys in realizing effective, efficient, and quality SPMB services.

The role of education personnel in the digital transformation of SPMB is no longer limited to internal administrative aspects, but extends to become technology-based public service facilitators. In this context, staff function as a bridging of interaction between the digital system and service users, namely prospective students and parents. The expansion of this role comes along with the increasing complexity of digital-based systems that are not always easily accessible to all levels of society. Therefore, the existence of staff is crucial in ensuring that education services remain inclusive, adaptive, and equally accessible to all potential users.

The main problem in the implementation of digital SPMB does not always stem from system weaknesses, but is often related to the limited digital literacy of users. The findings of the study show that obstacles such as lack of technological understanding, device limitations, and uneven internet access are significant obstacles in the registration process [49]. In these situations, staff take an active role as a technical companion who helps users understand the flow of the system practically. This shows that the success of digitalization is not only determined by the quality of technology, but also by the readiness of the human resources who manage it.

Furthermore, in operational practice, staff provide direct services in the form of assistance to prospective students and parents during the SPMB process. This form of facilitation includes an explanation of online-based registration procedures, assistance in filling in data, and handling technical obstacles that arise during the process. This involvement is in line with the principle of systematic and participatory student management, where all elements of the school, including education staff, contribute to supporting the smooth running of educational services [37]. Thus, the function of the staff is not only administrative, but also educational in helping the community adapt to the digital system.

Conceptually, the role of facilitators carried out by staff reflects the transformation of the educational service paradigm towards a user-oriented service model. In the perspective of modern learner management, educational services emphasize not only the efficiency of the system, but also the quality of interaction and user satisfaction as indicators of success [40]. Therefore, staff play a role in ensuring that the information conveyed is accurate, easy to understand, and can be accessed transparently by the

public. This role also strengthens the school's function as a public service institution that is responsive to the needs of the community in the digital era.

Digital transformation in the New Student Admission System (SPMB) places the digital competence of education personnel as the main determinant of the success of the system implementation. In this context, the ability to master information technology is no longer an additional, but rather an essential need inherent in the professional function of staff. Along with the digitalization of student management, staff are required to be able to adapt to technology-based systems that continue to develop. It was shown that systematic and participatory student management requires the support of competent human resources, including in technological aspects [37]. Thus, the success of digital transformation depends not only on the sophistication of the system, but also on the readiness of the individual competencies that operate it.

From the perspective of technology adoption, the effectiveness of digital system implementation is greatly influenced by the suitability between the characteristics of technology and user needs as well as the user's capacity to operate it. It was emphasized that the main obstacle in the implementation of online PPDB often lies in the low understanding of users of the system, not solely in the weaknesses of the technology itself [48]. This condition shows that without adequate digital competency support, a well-designed system has the potential to not be utilized optimally. Therefore, increasing digital literacy is a crucial aspect in ensuring the sustainability of digital transformation in Education [50]. In addition, this approach is also relevant to the view that places student management as a strategic system that requires integration between technology and human resource capacity [40].

Operationally, the digital competencies needed by education personnel include various dimensions that are integrated with each other. First, technical ability in operating a web-based information system is the basis for carrying out the SPMB administration process digitally. Second, skills in data management and analysis are needed to ensure the accuracy, validity, and utilization of data in decision-making. Third, the ability to handle technical problems is important considering the potential for system disruptions that can occur during the process. Fourth, digital communication competence is also an important aspect, especially in providing information services to the public effectively and responsively. This overall competency shows that the role of staff is not only administrative, but also analytical and communicative in the digital ecosystem.

However, various studies show that there is still a digital competency gap among education personnel, especially in education units with limited access to training and technological infrastructure. It was identified that the obstacles to the implementation of digital PPDB do not only come from external users, but also from the internal readiness of human resources in schools [49]. The same is also supported by the findings of other research that show that limited facilities and institutional support can hinder the optimization of the role of staff in digital systems [44]. Therefore, a sustainable capacity building strategy is needed, such as practice-based training, technical assistance, and strengthening institutional policies in digital competency development. This effort is

important to ensure that digital transformation in SPMB can run effectively, inclusively, and sustainably.

Digital transformation in SPMB does present various advantages, but its implementation in the field is still faced with a number of structural and cultural obstacles. One of the main obstacles is the limitation of technological infrastructure, such as uneven internet access and inadequate availability of devices in several educational units. In addition, low digital literacy among both education personnel and the community is a factor that hinders system optimization. It was shown that the online PPDB system has not fully run optimally because there is still a manual process and limited user readiness. Thus, digital transformation cannot be understood solely as a change in the system, but also as a process of adaptation of human resources and the educational environment as a whole [48].

On the other hand, it is shown that effective student management requires a systematic and participatory approach, which can only run optimally if supported by the readiness of all components, including education personnel [37]. This confirms that the implementation challenges are not only technical, but also related to coordination and synergy between stakeholders in schools. Optimal management of students can be hampered by limited facilities and institutional support [4]. Therefore, collaborative efforts involving various parties are needed to ensure that the digital system can be implemented effectively. Without comprehensive support, the potential benefits of digitalization risk not being maximally achieved [51].

To overcome these challenges, a strategy to strengthen the role of education personnel is needed that is designed in a systematic and sustainable manner. One of the main steps is to improve digital competencies through a structured, contextual, and practice-based training program, so that staff not only understand concepts, but also be able to implement them directly. In addition, the provision of technical support and infrastructure strengthening are important factors in supporting the smooth operation of the digital system. Effective coordination between education staff, teachers, and school leaders also needs to be strengthened to create integrated governance. In addition, the development of a system that is user-friendly and adaptive to field needs is an important aspect so that the system can be accessed and widely used by all users.

With the implementation of the right strategy, education personnel have great potential to transform into agents of change in the digitalization of education. This role is not only limited to technical implementers, but also as innovators and facilitators in the development of technology-based educational services. Modern student management requires integration between systems, policies, and human resource capacity. Therefore, strengthening the role of staff is a strategic investment in supporting the sustainability of digital transformation in the education sector. In the long run, this will contribute to the creation of an education system that is more adaptive, responsive, and service-oriented [40].

Implications of the Involvement of Teachers and Education Staff in SPMB on Improving the Quality of Education Services

Optimizing the role of teachers and education staff in the digital transformation of SPMB has significant implications for improving the quality of education services [52]. Digitalization allows the student admission process to take place faster and more efficiently because most of the stages can be done automatically through the system [53]. In addition, transparency in the selection process increases because information can be accessed in real-time by the public. It is shown that the online PPDB system is able to increase justice, accountability, and ease of access to information for users. Thus, digitalization not only increases operational efficiency, but also strengthens public trust in educational institutions [47].

Furthermore, integrated data management is one of the main advantages in digital systems. Learner data can be collected, stored, and analyzed systematically to support more accurate and evidence-based decision-making. This is in line with the concept that modern student management not only functions as an administrative activity, but also has a strategic role in supporting the educational planning and evaluation process [40]. In this context, education staff and teachers play the role of data managers who ensure the validity and reliability of the information used. Thus, the quality of decisions taken by the school becomes more measurable and objective.

Another implication can be seen in increasing the accessibility of educational services for the community. The digital system allows prospective students and parents to access information and register without having to come directly to school, thus saving time and costs. This is very relevant in the context of equitable distribution of educational services, especially for people who have limited geographical access. It was shown that despite the constraints of digital literacy, the existence of an online system still provides significant convenience compared to the conventional system [54]. Therefore, the role of teachers and teachers as facilitators is important in bridging the access gap [49].

Overall, optimizing the role of education personnel in the digital transformation of SPMB not only has an impact on the administrative aspect, but also contributes directly to improving the quality of education services. Staff are no longer just carrying out administrative functions, but are part of a strategic system that supports the quality of education as a whole. The management of students carried out systematically and integrally is able to improve the quality of education in a sustainable manner. Thus, strengthening the capacity and role of staff is one of the main keys in realizing effective, efficient, and community-oriented educational services [37].

CONCLUSION

This study reveals that digital transformation in the Student Admission System (SPMB) has an important role in improving the quality of educational services in the Society 5.0 era. The implementation of digital systems contributes to increasing efficiency, transparency, accessibility, and accuracy in educational services. In this process, teachers

and educational staff have strategic roles as facilitators, operators, and mediators in supporting digital-based educational services.

The findings of this study imply that strengthening digital competence, technological infrastructure, and institutional support is essential to optimize the implementation of digital transformation in education. Collaboration between teachers, educational staff, and educational institutions is also needed to create adaptive, effective, and user-oriented educational services.

However, this study is limited to articles obtained from Google Scholar and Publish or Perish and only applies the Systematic Literature Review (SLR) method without direct field observation. Therefore, future research is recommended to conduct empirical studies regarding the implementation of digital-based SPMB in schools, particularly related to digital readiness, infrastructure, and its impact on the quality of educational services.

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