

Librarian Management and INLISLite-Based Library Automation in Elementary Schools

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Abstract:

Advances in information technology have redefined the role of school libraries as active hubs for digital literacy. In elementary schools, the librarian function is frequently assigned to teachers as an additional responsibility, requiring them to manage book circulation, maintain collection records, and facilitate digital services through the INLISLite system. Although this platform enhances operational efficiency and supports students' digital literacy development, challenges persist due to limited technological proficiency, inadequate infrastructure, and the dual obligations placed on teachers. This study investigates the implementation of librarian management in INLISLite-based automation at SDN Rawa Buaya 07 and SDN Slipi 07 in West Jakarta. Employing Deming's PDCA (Plan–Do–Check–Act) quality management cycle as a conceptual framework, the research underscores continuous improvement through systematic planning, execution, monitoring, and corrective measures. A qualitative case study design was adopted, with data obtained from principals, teacher-librarians, and students via interviews, observations, and document analysis. Data were processed through reduction, display, and interpretation to draw meaningful conclusions. Findings indicate that the effectiveness of INLISLite automation is constrained by the absence of professional librarians and the limited competencies of other teachers. Consequently, strong principal support and collaborative teacher involvement are essential to optimize library management practices and foster a sustainable digital literacy environment.

Keywords: elementary education; INLISLite; library automation; management of learning; school librarian.

INTRODUCTION

The rapid development of information technology in the 21st century has brought fundamental changes to education, including school library management (Anwar et al., 2017). Libraries now function not only as places to store and borrow books, but also as centers for digital literacy with interactive and modern services (Beeson Jackie, 2015). At the elementary school level, librarians often work alongside teachers, so their duties include collection administration, book lending, and managing automated systems like INLISLite—a situation that both opens up opportunities to strengthen digital literacy from an early age and poses significant challenges (Rahmi & Najamudin, 2022).

At the elementary school level, the role is even more unique because the organizational structure is usually simple. Many schools assign teachers who also serve as librarians, resulting in a hybrid responsibility: managing collection administration, managing book circulation, providing simple reference services, and simultaneously operating library automation systems like INLISLite (Technology, 2011). This dual role model has two sides. On the one hand, there's a huge opportunity to introduce digital literacy from an early age—children can learn how to search for information, identify types of reading sources, and even understand digital ethics through library activities. On the other hand, teachers' already heavy workloads can make library management less than optimal if not supported by clear training, facilities, and standard operating procedures (SOPs).

In addition, elementary school libraries face other challenges: varying student literacy skills that are still developing, limited IT infrastructure in certain schools, and the need for curriculum adaptations to ensure digital literacy is truly integrated into learning. However, if all these factors are properly addressed, from increasing human resource capacity, strengthening automation systems, to developing digital collections, school libraries can become a strategic ecosystem for fostering learning habits relevant to the digital age (Floridi, 2025).

Ideally, INLISLite would enable libraries to manage collections, borrowing, and search data more effectively. However, in practice, many teacher-librarians still face limitations in their mastery of information technology. The lack of supporting resources, such as computers and internet access, also limits opportunities for digital implementation. Furthermore, the dual workload often makes library care a low priority. This fact indicates a significant gap between the potential of automation and the quality of its implementation in elementary schools (Novelli et al., 2024).

Existing research mostly addresses library automation in universities or public libraries, while similar studies in elementary schools are very limited. Yet, elementary libraries play a strategic role in fostering a love of reading, digital literacy skills, and independent learning in students (Rahmi & Najamudin, 2022). Furthermore, school librarians also play a crucial role in fostering new media literacy, including fostering cross-stakeholder collaboration to strengthen students' digital skills. This is all the more crucial given the Minister of Education's statement emphasizing the need for training for teacher-librarians to support student literacy and creativity through technology.

Based on these matters, this study aims to further explore how librarian management manages INLISLite-based library automation at SDN Rawa Buaya 07 and SDN Slipi 07 West Jakarta, using the PDCA (Plan, Do, Check, Act) cycle approach from Deming's quality management theory. The focus of the study includes the planning, implementation, evaluation, and follow-up phases carried out by teacher-librarians and the school. This study is expected to not only reveal strategies and obstacles, but also open up opportunities for practical recommendations that can strengthen the quality of library services.

This research is expected to provide significant theoretical and practical contributions. Academically, the results will complement the study of library automation in the context of elementary education, demonstrating the importance of librarian managerial aspects as the spearhead of digital library transformation. Practically, the findings are expected to form the basis for technical training plans for teacher-librarians, technology-based library management policies, and recommendations for necessary IT support. More broadly, this research can strengthen the role of elementary school libraries as centers of digital literacy, inclusive, adaptive, and supporting a more transformational 21st-century education.

METHOD

The research method used in this study is descriptive. This research was conducted to describe and analyze data to identify general trends that can be used as material for further study. This study aims to describe and analyze how contextual approaches are managed for independent learning for children with special needs and intellectual disabilities. This descriptive study is expected to identify the conditions, opinions, and processes involved in managing contextual approaches for independent learning for children with special needs and intellectual disabilities (Ghanad, 2023).

This research uses a descriptive qualitative approach with a case study to examine in-depth librarian management in INLISLite-based library automation at the elementary school level. The qualitative approach was chosen because it allows researchers to explore phenomena experienced by research subjects, including behaviors, perceptions, motivations, and service management practices in contextual and detailed detail

(Aminah, 2019). Case studies are used to enable researchers to study service management processes intensively and comprehensively in a real-world context (Abubakar, 2021).

This research was conducted at the Library of SDN Rawa Buaya 07, Cengkareng District, West Jakarta City, and SDN Slipi 07, Palmerah District, West Jakarta City. The research was conducted in August 2025 with research subjects consisting of one principal, one librarian, and one student from each school. The selection of subjects was made because it was in accordance with the focus of the research related to librarian management in INLISLite-based library automation, where even though the library has adopted INLISLite, librarians still carry out dual roles as teachers.

The data collection method involved three main techniques. First, in-depth interviews were conducted to gain a detailed understanding of librarians' experiences and perspectives regarding INLISLite-based library management, lasting approximately 60 minutes (Fadli, 2021). Second, direct participant observation was conducted to observe librarians' activities in collection management, circulation services, and the use of information technology to support student literacy (Sugiyono, 2013). Third, a documentation study was conducted through a review of archives, reports, and documents related to INLISLite implementation, such as collection data, circulation service records, and application usage guidelines (Rahman, 2020).

Data analysis used an interactive analysis model consisting of three stages: data reduction, data presentation, and conclusion drawing and verification (Miles & Huberman, 1994). In the reduction stage, collected data is selected and simplified to focus on aspects relevant to the research objectives. The presentation stage involves organizing the data in narrative form for easier understanding (Yusuf, 2016). The final stage is drawing conclusions accompanied by verification to ensure the validity of the research findings (Aminah, 2019). This analysis process is carried out continuously to produce valid and in-depth findings.

To enhance the validity and credibility of the data, this study employed source triangulation. Information obtained from interviews with the principal, librarian, and students was compared with observations and library documentation. This approach allowed the researcher to assess the consistency of the findings and obtain a more comprehensive picture of librarian management in INLISLite-based automation. Overall, this methodology section outlines the research design, its rationale, the research subjects, data collection techniques, research procedures, and data analysis used, enabling the research to be conducted systematically and produce reliable findings.

RESULTS AND DISCUSSION

This study applies the triangulation method as the main strategy to strengthen the validity of the collected data. Triangulation was carried out by comparing information from various sources, namely interviews with the principal, teachers who also serve as librarians, and students, with the results of direct observations of library management activities at SDN Rawa Buaya 07 and SDN Slipi 07. This approach allows researchers to evaluate the suitability between the perceptions of informants and actual practices in the field so that the research results become more comprehensive and reliable.

Through the triangulation method, researchers were able to highlight various challenges and opportunities that arise in the implementation of INLISLite-based library automation, including technical constraints, facility availability, and the dual burden of teachers and librarians who must divide their time between teaching and managing the library. The analysis was conducted systematically by referring to the stages of quality management, namely planning, implementation, evaluation, and follow-up. This approach allows for a more comprehensive understanding of the logical relationships between management stages and the role of librarians in improving the quality of library services (Deming, 1986).

The most common issue at the elementary school level is role overload, aka the dual burden of teacher-librarians. They must teach students, prepare materials, and handle classroom administration, while simultaneously managing collections, inputting data into INLISLite, organizing catalogs, and managing loan circulation. This combination of roles makes the quality of library management highly dependent on time management, school support, and the technical skills of individual teachers. Triangulation helps researchers capture this dynamic without losing context, as the data collected comes from various actors and situations.

To streamline the analysis, this research was structured using a quality management framework consisting of four stages: planning, implementation, evaluation, and follow-up. During the planning stage, researchers were able to assess the school's strategy for utilizing INLISLite, from developing standard operating procedures (SOPs) and task allocation to the availability of facilities. The implementation stage

reflected the day-to-day reality on the ground: whether the system was running smoothly, how the teacher-librarians managed their time, and how students utilized digital library services.

The evaluation phase is used to measure the extent to which implementation is on track, any gaps that arise, and the factors that sometimes cause the automation process to stall. This is where the follow-up phase emerges, which involves practical recommendations for improvements, such as the need for further training, facility procurement, or job description restructuring to make library management more effective.

This approach allows researchers to understand not only “what the problem is,” but also “why it happened” and “what the inter-stage relationships are that influence the quality of library services.” In other words, triangulation plus quality management provides a more comprehensive picture of how the role of librarians—including those who also serve as teachers—can be enhanced to boost the quality of school library services sustainably.

The planning phase includes identifying library service needs, determining relevant INLISLite features, preparing hardware, organizing collection and member data, and planning training for teacher-librarians. Researchers found that both schools tailored system features to student needs, including visit recording, circulation management, and digital cataloging (Rahmi & Najamudin, 2022). During the implementation phase, librarians input collection data, member registration, circulation services, online catalog searches (OPAC), automated report preparation, and user assistance. The evaluation phase assesses data completeness and accuracy, service speed, feature utilization, technical issues, and user satisfaction (Sanusi, 2023). The follow-up phase includes data improvement, routine backups, and optimization of features that have not been fully utilized.

The analysis results show that triangulation allows research to be not only descriptive but also to explain the interrelationships between management stages. For example, thorough planning impacts smooth implementation, evaluation helps identify deficiencies in record-keeping and service delivery, while follow-up strengthens the sustainability of automation and improves students' digital literacy (Anindya & Wicaksono, 2021). This study confirms that collaboration between librarians' technical skills and school management support is a crucial factor in maintaining the quality and sustainability of INLISLite-based library services.

Library automation management at the elementary school level is an important strategy for improving the quality of information services, digital literacy, and the efficiency of collection management. By utilizing an INLISLite-based system, schools can simplify administrative procedures, accelerate information access, and encourage active student involvement in literacy activities. The success of automation does not depend solely on technology, but is strongly influenced by systematic service management, librarian competence, and school management support. Therefore, this study comprehensively examines the stages of library automation service management, from planning, implementation, evaluation, to follow-up. This approach aims to provide a deep understanding of the dynamics of INLISLite management, including emerging challenges and strategies for optimizing library services at SDN Rawa Buaya 07 and SDN Slipi 07. To further clarify the discussion of service management, the stages of library automation management, namely planning, implementation, evaluation, and follow-up, will be described in detail.

Library Automation Service Planning

The planning stage is the main foundation in implementing INLISLite-based library automation, as it determines the direction and effectiveness of the entire service management process. At SDN Rawa Buaya 07 and SDN Slipi 07, planning begins with identifying students' literacy needs, including reading interests, information-seeking skills, and digital technology proficiency. Furthermore, the school curriculum serves as a reference so that library collections and services can support the overall learning process. Input from other teachers is also an important consideration in determining the type of collection, system features, and relevant literacy programs. The principal plays a strategic role in mapping appropriate services, ensuring that the selected features and collections align with student characteristics and the availability of infrastructure. Basic features such as visit recording, collection management, circulation services, and monitoring usage statistics are top priorities to ensure smooth operations.

From a quality management perspective, this planning stage reflects the “Plan” principle in the PDCA (Plan, Do, Check, Act) cycle, which emphasizes systematic needs mapping before the implementation phase (Deming, 1986). Needs analysis encompasses not only technical aspects but also the integration of educational values such as ethics, social skills, and aesthetics, so that library services support the holistic development of students' character (Sanusi, 2023). Findings from previous research confirm that thorough

planning is a determining factor in the success of library automation, as it allows schools to prioritize features based on infrastructure capacity, librarian competency, and student literacy needs (Anindya & Wicaksono, 2021).

The planning phase also includes developing training strategies for librarians and teachers, selecting hardware, determining digital workflows, and scheduling collection data updates. This strategy helps minimize data input errors, anticipate technical challenges, and ensure optimal use of every INLISLite feature. With comprehensive planning, libraries not only prepare for daily operations but also lay the foundation for sustainable digital services that are responsive to students' evolving literacy needs (Rahmi & Najamudin, 2022).

Beyond human resources, planning also touches on hardware selection. Schools need to consider computer capacity, internet network stability, backup storage, a UPS to prevent data loss, and user access devices (such as a catalog PC or an inexpensive tablet). Selecting the right hardware that meets your needs is crucial for a smooth system; if the device is "sluggish," the input and loan processes will be slow and frustrating. Thorough hardware planning also ensures the library doesn't have to constantly incur unexpected repair costs.

Another equally important aspect is establishing a digital workflow. This includes clearly defining roles: who inputs new books, who validates metadata, who monitors transactions, when data should be backed up, and how input errors will be handled. This workflow transforms a messy manual process into a streamlined digital mechanism, drastically reducing the risk of duplicate data, incorrect entries, or lost collections.

Scheduling collection data updates should also be included in the planning process. INLISLite works optimally when the data is clean and up-to-date. Therefore, schools need to determine when new collection entries will be made, how often the data will be reviewed, and how the data will be synchronized if changes occur. This routine monitoring ensures the library maintains a catalog that is always relevant and reliable for students and teachers.

All the strategies in this planning phase work together to minimize input errors, anticipate technical issues, and ensure the optimal use of INLISLite's features—from circulation and the online catalog to library statistical reports. Ultimately, comprehensive planning not only prepares for daily operations but also builds a strong foundation for sustainable, progressive, and responsive digital library services to meet students' growing literacy needs year after year.

Thus, thorough planning based on needs analysis is crucial to ensure library automation goes beyond simply digitizing collections and creating an interactive literacy center that can support the ongoing development of student competencies and character. This planning stage serves as a crucial benchmark for the success of all subsequent stages, from implementation and evaluation to service follow-up.

Implementation of Automation Services

During the implementation phase, both schools, SDN Rawa Buaya 07 and SDN Slipi 07, actively implemented various activities related to INLISLite-based library automation. These activities included collection data input, new member registration, circulation service management, use of the online catalog (OPAC), and the preparation of automated reports for monitoring and evaluation purposes. Each new collection was first recorded for its identity, such as title, author, publisher, year of publication, and classification number, before being entered into the system. Furthermore, librarians double-checked the digital data to ensure it matched the physical condition of the books on the shelves, ensuring accurate and reliable information quality. The OPAC facility made it easier for students and teachers to browse the collection, although in some cases there were still limitations related to data completeness (Rahmi & Najamudin, 2022).

Librarians provide active support, especially for new students or teachers unfamiliar with the system. This approach not only introduces digital functions but also ensures that INLISLite is used effectively and according to procedures. Thus, the success of library services is determined not only by technology but also by the skills and involvement of librarians as the primary administrators of the system.

This mentoring approach also helps eliminate psychological barriers for users who feel awkward, afraid of making mistakes, or unfamiliar with interacting with information technology. By providing an inclusive and non-intimidating learning space, librarians build an environment conducive to digital literacy from an early age. Students are encouraged to explore catalogs more boldly, read summaries of digital collections, and develop more independent literacy interests. Through inclusive, friendly, and non-intimidating mentoring, librarians create a learning space that allows students and teachers to feel safe to experiment, ask questions, and make

mistakes without fear of judgment. This supportive learning environment aligns with social learning theory, where a sense of comfort and social acceptance increases the courage to try and accelerates the internalization of new skills. Mentoring also provides librarians with the opportunity to scaffold, providing structured assistance until users are able to work independently.

Furthermore, this approach fosters a culture of digital literacy that is not only technical but also affective. By reducing fear, students become more confident in navigating digital catalogs, utilizing collection summaries, and understanding how the OPAC works. This confidence is a crucial foundation for digital literacy, as it encourages students not only to access information but also to develop initiative and control over their own learning process.

This empathy-based mentoring contributes to the development of students' character. The librarians' patient, communicative, and responsive attitudes serve as models of behavior that students indirectly emulate. In the long term, students not only improve their digital literacy skills but also grow into more independent, enthusiastic, and responsible individuals in managing information.

Overall, the mentoring approach to INLISLite utilization at the elementary school level plays a key role in reducing psychological barriers, strengthening the learning experience, and building a sustainable digital literacy ecosystem. By creating an inclusive and supportive learning environment, librarians not only facilitate the use of technology but also lay the foundation for the growth of literacy interests and independent learning from an early age.

For teachers, mentoring has strategic implications. Teachers are not just users, but actors who will help promote library utilization in the learning process. When teachers understand INLISLite's basic features, from checking book availability to using loan statistics to support learning activities, they can incorporate the library as an integral part of their teaching strategy. Consequently, the library transforms from a passive space into an active learning space.

Structured mentoring also ensures that system use strictly complies with SOPs. Input errors, unrecorded transactions, or inaccurate catalog entries are minimized because librarians are present as guides. Librarians review user processes, identify misconceptions, and provide immediate corrections. This simultaneously strengthens the quality of the library database, which is central to successful automation.

The success of an automated library service depends heavily on the quality of librarian skills. Technology is merely a tool; its presence will have no significant impact without operators who understand how to manage workflows, interpret statistical data, perform basic troubleshooting, and provide friendly and efficient information services. It is this active involvement of librarians that makes INLISLite not just a computer system, but a vibrant and relevant service.

Ultimately, this active mentoring builds a digital literacy ecosystem centered on collaboration between technology, librarians, teachers, and students. When all parties feel empowered and confident in using the system, school libraries can transform into responsive, purposeful, and sustainable digital learning spaces.

Previous research has shown that the implementation of INLISLite can accelerate the collection recording process, simplify circulation services, and improve the operational efficiency of school libraries. However, implementation at SDN Slipi 07 experienced obstacles due to the librarian's limited time to update data, while at SDN Rawa Buaya 07 the data input and verification processes were more orderly due to consistent rechecking. This finding confirms that the active role of librarians in data mentoring and management is a key factor in ensuring optimal service quality, in line with the findings of Asari (2020) who emphasized the importance of human resources in the success of library automation. Thus, the implementation phase emphasizes the balance between technology utilization and librarian involvement, so that library automation functions not only as a digital tool but also as a means to support student digital literacy and overall library management efficiency.

Service Evaluation

The evaluation phase of the INLISLite-based library automation implementation at SDN Rawa Buaya 07 and SDN Slipi 07 emphasized data accuracy, service speed, system feature utilization, technical issues, and user satisfaction. Librarians periodically reviewed collection and member data to ensure compliance with digital information and physical conditions. The evaluation process also included monitoring of loan and return services, use of the OPAC, and student and teacher engagement in library activities. Any findings related to input errors, data duplication, or network issues were recorded to inform improvement strategies.

Observations show that the OPAC makes it easier for students and teachers to browse books, but some students still require librarian assistance, especially when catalog data is incomplete. One student said, "I'm happy when the book I'm looking for appears in the OPAC, but sometimes I still have to ask the librarian for help" (Interview, SDN Rawa Buaya 07, August 15, 2025). This finding confirms that service success depends not only on technology but also on effective human support, in line with research by Fatmawati (2020) which emphasizes the collaboration between digital systems and the role of librarians in improving service quality.

The evaluation also involved measuring user satisfaction. Students and teachers provided input for service improvements, such as adding computer facilities, increasing the collection, and strengthening statistical features to monitor reading interest. This aligns with the principles of total quality management, where each stage is evaluated for continuous improvement, as described in Deming's PDCA (Plan, Do, Check, Act) cycle (Deming, 1986). Applying this principle helped librarians identify areas for improvement and optimize the use of INLISLite features to make the service more responsive and efficient.

In line with library management theory that emphasizes the importance of continuous evaluation, the findings of this study indicate that the evaluation process not only measures system performance but also provides an opportunity to enhance librarian skills, develop students' digital literacy, and improve data governance. Thus, evaluation is a crucial mechanism to ensure library automation does not stagnate but continues to evolve in line with user needs and the demands of 21st-century education. Furthermore, this evaluation phase emphasizes the integration of educational values, such as ethics, responsibility, and tidiness, in accordance with Sanusi's six value systems (Sanusi, 2023). These values are implemented in data management, user interactions, and the presentation of library collections and facilities. Thus, in addition to increasing efficiency, the evaluation phase also supports the development of student character and competency.

Service Follow-up and Optimization

The follow-up phase is a crucial step in ensuring the sustainability and optimization of INLISLite-based library automation implementation at SDN Rawa Buaya 07 and SDN Slipi 07. At this stage, librarians actively monitor and improve data, back up information, and utilize features that have not been fully utilized. Data maintenance includes correcting input errors, updating collection and member information, and preparing periodic reports to monitor service performance. One librarian stated, "We review incorrect data in the application and edit it directly to reflect the condition of the books or member data" (Interview, SDN Rawa Buaya 07, August 15, 2025).

In addition, both schools perform routine data backups to maintain information security and prevent the loss of critical data. This practice aligns with the principles of total quality management, which emphasizes continuous and structured follow-up (Deming, 1986). Regular backups also support system reliability and enable librarians to develop strategies to address potential technical disruptions.

This practice aligns with the principles of Total Quality Management (TQM), particularly the continuous improvement aspect emphasized by Deming through the PDCA (Plan–Do–Check–Act) cycle. Within the TQM framework, follow-up is not merely a response to emerging problems, but rather a systematic and ongoing process to maintain consistent and improving service quality over time. By conducting regular data backups, both schools demonstrate the application of the "Act" principle in PDCA, where evaluation findings—such as the risk of data loss or network instability—are concretely followed up through the establishment of standard data security procedures.

Furthermore, data backups support system reliability. This reliability is crucial in the context of elementary school libraries adopting automation, as any disruption can impact the smooth operation of services, the availability of information for students and teachers, and the accuracy of library administration reports. Having backup copies allows librarians the flexibility to perform rapid data recovery, thus minimizing downtime and allowing literacy activities to continue without significant disruption.

Furthermore, data backup practices also enable librarians to develop strategies to prevent technical disruptions. For example, if there are indications of hardware performance degradation or frequent system errors, librarians can immediately take preventative measures because the stored data is secure. This demonstrates the institution's ability to perform risk mitigation and risk management, two crucial aspects of service-based quality management.

Thus, routine data backup is not merely a technical aspect, but also an integral part of library quality management, requiring careful planning, ongoing control, and structured follow-up. This effort is a crucial

foundation for ensuring the sustainability of library automation services and supporting the creation of a digital literacy environment that is stable, secure, and responsive to the dynamics of user needs.

Optimizing INLISLite features is also a key focus. Librarians strive to activate all features, including statistical reports, to monitor borrowing patterns, popular collections, and student visits. This information allows for more targeted collection management and more responsive library services to student needs. One librarian stated, "We use the reports and statistics features to monitor borrowings, popular collections, and the number of visits, to improve service and more accurate collection planning" (Interview, SDN Slipi 07, August 19, 2025).

Specifically, the statistics module allows librarians to monitor borrowing patterns, student visit frequency, and the most popular titles accessed. This information plays a crucial role in assessing the collection's relevance to student needs and reading preferences. Thus, collection management is no longer reactive or simply based on budget availability, but rather evidence-based collection management. This approach aligns with modern library practices, which prioritize data as a key instrument in formulating service strategies and collection development.

Furthermore, utilizing statistical reports helps librarians identify potential service issues. For example, a drastic drop in visits or loan requests could indicate technical difficulties, a lack of system awareness, or changes in student reading behavior. With this data, librarians can conduct situational analysis and determine appropriate corrective measures. This demonstrates how automation technology not only supports administrative tasks but also expands librarians' capabilities in service monitoring and performance evaluation.

One librarian's statement, "We use the reporting and statistics features to monitor borrowings, popular collections, and visitation numbers to improve service and more accurate collection planning," illustrates both an operational and strategic understanding of INLISLite's use. This statement demonstrates that data analysis has become part of the decision-making process in school libraries. This approach reinforces the library's relevance as an adaptive learning center, where collection and service development are guided by the real needs of students.

Furthermore, optimal use of INLISLite features aligns with the principles of Total Quality Management (TQM), particularly in the aspect of fact-based decision-making. By using statistical data as a basis for planning, libraries can increase the accuracy of interventions, improve service efficiency, and ensure the sustainability of digital literacy programs. Utilizing this feature also strengthens the position of librarians as competent and professional information managers, not simply system operators. Thus, the use of statistical and reporting features not only improves the effectiveness of library management but also strengthens the ability of basic educational institutions to provide relevant, data-driven literacy services that are aligned with the dynamics of student needs.

The follow-up phase also presents challenges, especially for teachers who double as librarians. They must balance their time between teaching and library management, sometimes delaying feature utilization or data updates. This situation emphasizes that the success of automation depends not only on technology but also on the time management and professionalism of librarians. This aligns with Asari's (2020) findings, which emphasize the importance of human resources in ensuring the sustainability of library automation.

In addition to technical aspects, follow-up also involves the application of educational values, as outlined in Sanusi's six value systems (Sanusi, 2023). Librarians emphasize ethics, responsibility, neatness, and discipline at every stage of the follow-up process. Integrating these values ensures that library automation is not only efficient but also supports student character development. In this context, librarians apply ethical principles as a primary foundation. Work ethics are reflected in a professional attitude, transparency in data recording, caution when handling student personal information, and a commitment to maintaining data accuracy and confidentiality. The value of responsibility is also manifested through librarians' consistency in carrying out data recording, service supervision, and device and system maintenance. This responsibility is not only individual but also institutional because it relates to the school's accountability as a manager of technology-based public services.

Neatness and discipline are two additional values that are highly relevant in the follow-up of library automation. Neatness is reflected in the systematic organization of digital data, consistent metadata, and the structured storage of physical and digital documents. Discipline, on the other hand, plays a role in maintaining the continuity of critical processes such as data backup, catalog updates, statistical report reading, and consistent implementation of standard operating procedures (SOPs). With strong discipline, system sustainability can be guaranteed and the risk of administrative errors can be minimized.

The integration of these values aligns with a total quality management approach that places character development and organizational culture as essential elements for improving service quality. Within the TQM framework, the success of a process is measured not only by technical efficiency but also by the extent to which organizational values are internalized by implementers. By implementing Sanusi's value system, librarians act not only as technical operators but also as educators who instill exemplary behavior through concrete actions.

Furthermore, instilling values through library automation has direct implications for students. The meticulous, disciplined, and ethical attitudes demonstrated by librarians in system management indirectly serve as behavioral models for students. This contributes to the formation of a literacy culture that is oriented not only toward the use of technology but also toward the development of responsible character and integrity. Thus, library automation not only accelerates service processes but also strengthens the library's educational function as a space for learning values.

Overall, the application of educational values in the follow-up to library automation demonstrates that digital transformation in elementary education institutions is inseparable from character development. According to Sanusi, integrating values ensures that the system is both technically effective and pedagogically meaningful, enabling libraries to play a strategic role in supporting the development of students' literacy skills and character.

Thus, the follow-up phase includes data repair, routine backups, feature optimization, and effective human resource management. This combination of technical and managerial strategies enables the INLISLite-based digital library to function as an adaptive, responsive, and sustainable literacy center. This study confirms that the success of library automation in elementary schools depends heavily on the librarian's ability to manage services professionally, while balancing the dual duties of teaching and library management (Rahmi & Najamudin, 2022).

CONCLUSION

The results of the study indicate that librarian management in implementing INLISLite-based library automation at SDN Rawa Buaya 07 and SDN Slipi 07 was quite effective. This effectiveness was evident in the technical management aspects, the provision of literacy services, and student assistance in utilizing library facilities. The process included planning collection and member data collection, implementing digital-based circulation services, guiding the use of the OPAC, and periodically evaluating borrowing and visitation levels. These steps not only simplified the administrative system but also expanded access to information for all library users. The implementation of this automation aligns with Deming's Continuous Quality Assessment (PDCA) concept, which emphasizes four main stages: planning, implementing, evaluating, and following up. In the follow-up phase, libraries improve data, maintain regular backups, and enhance librarian competency through training and mentoring programs. With these efforts, school libraries are able to transform into modern information centers and adaptive learning environments that support digital literacy and 21st-century competencies.

REFERENCES

- Abubakar, H. R. (2021). *Pengantar metodologi penelitian*. SUKA-Press UIN Sunan Kalijaga.
- Aminah, S. (2019). *Pengantar Metode Penelitian Kualitatif*. Prenada Media.
- Anindya, E. F., & Wicaksono, M. F. (2021). Analisis Pemanfaatan Inlislite (Integrated Library System) Di Dinas Kearsipan Dan Perpustakaan Kabupaten Trenggalek. *Shaut Al-Maktabah: Jurnal Perpustakaan, Arsip Dan Dokumentasi*, 13(1), 67–84.
- Anwar, R. K., Komariah, N., & Rahman, M. T. (2017). Pengembangan Konsep Literasi Informasi Santri: Kajian di Pesantren Arafah Cililin Bandung Barat. *Wawasan: Jurnal Ilmiah Agama Dan Sosial Budaya*. <https://doi.org/10.15575/jw.v2i1.964>
- Beeson Jackie, I. C. (2015). Information systems meets information science. *Innovation in Teaching and Learning in Information and Computer Sciences*, 5(2), 1–6. <https://doi.org/https://doi.org/10.11120/ital.2006.05020003>
- Deming, W. (1986). *Edwards, Out of the Crisis, MIT Center for Advanced Engineering Study*.
- Fadli, M. R. (2021). Memahami desain metode penelitian kualitatif. *Humanika, Kajian Ilmiah Mata Kuliah Umum*,

21(1), 33–54.

- Floridi, L. (2025). Content Studies: A New Academic Discipline for Analysing, Evaluating, and Designing Content in a Digital and AI-Driven Age. *Philosophy & Technology*, 38(2), 1–17.
- Ghanad, A. (2023). An overview of quantitative research methods. *International Journal of Multidisciplinary Research and Analysis*, 6(08), 3794–3803.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.
- Novelli, C., Casolari, F., Rotolo, A., Taddeo, M., & Floridi, L. (2024). AI Risk Assessment: A Scenario-Based, Proportional Methodology for the AI Act. *Digital Society*, 3(1), 13. <https://doi.org/10.1007/s44206-024-00095-1>
- Rahman, M. T. (2020). *Filsafat Ilmu Pengetahuan*. Prodi S2 Studi Agama-Agama UIN Sunan Gunung Djati Bandung.
- Rahmi, A., & Najamudin, N. (2022). Efektivitas Penerapan Sistem Aplikasi INLISLITE (Integrated Library System) Pada Kegiatan Penginputan Data Dinas Perpustakaan dan Kearsipan Kabupaten Aceh Barat. *Journal of Social Politics and Governance (JSPG)*, 4(2), 128–141. <https://doi.org/https://doi.org/10.24076/jspg.v4i2.931>
- Sanusi, A. (2023). *Sistem nilai: Alternatif wajah-wajah pendidikan*. Nuansa Cendekia.
- Sugiyono, D. (2013). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*. Alfabeta.
- Technology, A. S. for I. S. and. (2011). *Introduction to Information Science and Technology* (D. Davis Shaw C H (ed.); 1st ed.). Information Today, Inc.
- Yusuf, A. M. (2016). *Metode penelitian kuantitatif, kualitatif & penelitian gabungan*. Prenada Media.



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