

Implementation of Microsoft Excel as an E-Report Card Medium at SDN Kebun Bunga 5 Banjarmasin

Septiana Dwi Cahyani¹, Siti Azzahro², Mirzanul Achmad Kasyan³, Akhmad Ansyari⁴

^{1,2,3,4} Islamic Education Management Study Program, UIN Antasari
Banjarmasin, Banjarmasin City
email sajaunnisa47@gmail.com

Abstract

Keywords:

E-Report Card;
Assessment Learning Outcomes;
Elementary School;
Assessment Management;
Microsoft Excel; Work Efficiency
Teachers

This study examines the implementation of Microsoft Excel-based E-Report as a medium for student assessment at SDN Inti Kebun Bunga 5 Banjarmasin. Since 2020, the application has been mandatory for teachers to systematically input student scores in attitudes, knowledge, and skills. Using a qualitative approach through interviews, observations, and documentation, the study reveals that E-Report enhances teachers' work efficiency, data accessibility, and transparency compared to manual methods. Microsoft Excel plays a vital role in automated calculations, grade conversion, and data recapitulation, although challenges remain, including teachers' limited mastery of complex formulas and restricted internet access. The school addresses these issues through technical assistance and a gradual transition to web-based systems. Overall, the E-Report implementation significantly improves the quality of assessment management in primary schools. Sustainable support through teacher training and strengthened technological infrastructure is essential for optimizing this system.

Abstrak:**Kata Kunci:**

E-Rapor;
Penilaian Hasil Belajar;
Sekolah Dasar;
Manajemen Penilaian;
Microsoft Excel;
Efisiensi Kerja
Guru

Penelitian ini mengkaji implementasi aplikasi E-Rapor berbasis Microsoft Excel sebagai media penilaian hasil belajar siswa di SDN Inti Kebun Bunga 5 Banjarmasin. Sejak 2020, aplikasi ini diwajibkan bagi guru untuk menginput nilai aspek sikap, pengetahuan, dan keterampilan secara sistematis. Dengan pendekatan kualitatif melalui wawancara, observasi, dan dokumentasi, penelitian ini menemukan bahwa pemanfaatan E-Rapor meningkatkan efisiensi kerja guru, kemudahan akses data, dan transparansi penilaian dibanding metode manual. Microsoft Excel berperan penting dalam perhitungan otomatis, konversi nilai, dan rekap data, meski kendala tetap muncul, seperti keterbatasan pemahaman guru terhadap rumus kompleks serta akses internet yang terbatas. Sekolah menanggapi hambatan ini dengan pendampingan teknis dan transisi bertahap menuju sistem berbasis web. Secara keseluruhan, implementasi E-Rapor memberikan kontribusi positif dalam meningkatkan kualitas manajemen penilaian di sekolah dasar. Dukungan berkelanjutan berupa pelatihan guru dan penguatan infrastruktur teknologi menjadi kunci optimalisasi sistem ini.

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I. INTRODUCTION

The development of information and communication technology has had a significant impact on the education system, particularly in the management and reporting of student learning outcomes. In today's digital era, the need for an effective, efficient, and transparent assessment system is increasing in line with the complexity of the 2013 Curriculum (K-13). This curriculum requires teachers to conduct comprehensive assessments of attitudes, knowledge, and skills, all of which require systematic and integrated data processing (Jamalia et al., 2022).

However, to date, many elementary schools still rely on Microsoft Excel to process student grades. This spreadsheet application is indeed quite helpful in calculating scores and summarizing data, but it has limitations, especially in handling the large number of competency variables and the complexity of the relationships between data in subject units. As a result, the score processing process becomes less efficient, prone to errors, and difficult in compiling student learning reports (Suyati, 2023). Similar conditions were found at SDN 11 Rantau Bayur and SDN Kemiri, where grades are still recorded manually or conventionally, increasing the risk of errors, data loss, and low work efficiency (Sanjaya & Rudi Sanjaya, 2023).

In response to these problems, several schools have begun to develop digital systems, one of which is a web-based digital report card information system. This system is designed to improve the efficiency, accuracy, and accessibility of student grade data, as well as to make it easier for teachers, students, and parents to access academic information quickly and in a structured manner (Wahyudi et al., 2024).

The use of the E-Rapor application is considered to be able to improve the effectiveness and efficiency of the assessment process. This application allows teachers to manage grade data systematically, speed up the reporting process, and improve data accuracy and transparency. In addition, E-Rapor also provides access for parents to monitor their children's learning achievements, thereby supporting better communication between schools and parents (Pujiastuti et al., 2022). A study at SD Muhammadiyah Sokonandi Yogyakarta showed that more than 80% of teachers stated that this application was easy to use, useful, and helped them complete assessment tasks more efficiently.

However, the implementation of E-Rapor in elementary schools still faces a number of obstacles, both in terms of infrastructure, teachers' digital competence, and technical support from schools. Some teachers experienced difficulties in operating this application due to limited training and technical understanding, especially in the early stages of using Excel and integrating it into digital systems (ADFANI, 2022). On the other hand, the role of the principal and operator is very important in supporting the implementation of this system through continuous training and technical assistance (Aryananda, 2022).

Research on the implementation of E-Rapor in elementary schools, especially in the South Kalimantan region, is still limited. Therefore, this study was conducted to examine the use of the E-Rapor application as a medium for assessing learning outcomes at SDN Inti Kebun Bunga 5 Banjarmasin. This study aims to determine the effectiveness of using this application, the obstacles faced by teachers, and the support provided by schools in order to improve the quality of assessment and academic services at the elementary school level.

II. METHOD

This study uses a qualitative approach with the aim of exploring in depth the use of the E-Report application as a medium for assessing student learning outcomes at SDN Inti Kebun Bunga 5 Banjarmasin. The research was conducted in the odd semester of the 2024/2025 academic year in the school environment. A qualitative approach was chosen to obtain comprehensive data on teachers' experiences and various obstacles encountered in the process of inputting and reporting scores using the E-Rapor application (Danuri & Maisaroh, 2019; Nasution, 2023).

Data collection techniques included in-depth interviews with classroom teachers and homeroom teachers, direct observation of the process of entering grades in the application, and documentation in the form of student grade data and learning outcome reports. Data validity was strengthened through a triangulation approach, which is the combination of various sources of information to ensure the consistency and accuracy of the findings (Sugiyono, 2019).

The collected data were analyzed inductively through the stages of data reduction, data presentation, and conclusion drawing, as developed by Miles and Huberman (Miles et al., 2014). Thematic analysis was used to identify patterns of application utilization, obstacles experienced by teachers, and forms of school support in the implementation of E-Rapor. Research ethics were observed by maintaining the confidentiality of informants' identities and obtaining informed consent before the data collection process was carried out.

III. RESULTS AND DISCUSSION

1. Implementation of Microsoft Excel-Based E-Report Cards at SDN Inti Kebun Bunga 5

The results of the study show that the implementation of Microsoft Excel-based E-Report Cards at SDN Inti Kebun Bunga 5 was carried out through structured and systematic stages. The initial stage included the design of an Excel template consisting of several separate sheets for various functions. The template contained student identity data, subject scores, attendance records, attitude assessments, and homeroom teacher notes. The template was designed in a detailed and structured manner to make data management more efficient, easily accessible to teachers, and to support the smooth recording of scores overall (Rando et al., 2024; Sikas et al., 2023). A similar problem was also found at SDN 105 Kendari, where teachers' limited technological knowledge meant that school operators often had to help them fill out report cards, making training in the use of Excel applications very important (Yusmah sari et al., 2024).

The process of processing grades and compiling competency descriptions is done automatically using Excel formulas, such as the AVERAGE function to calculate the average grade, IF to determine the grade category based on certain conditions, and VLOOKUP to search for relevant data quickly and accurately. The use of these formulas has proven to be effective in reducing data input errors that commonly occur in manual processing and speeding up the report card creation process. Teachers routinely enter data on daily assessments, tests, and assignments, while homeroom teachers are responsible for verifying and summarizing the data to produce a final report that is then printed or saved in digital PDF format (Rando et al., 2024; Simarmata, 2023).

These findings reinforce previous research stating that Microsoft Excel is an effective tool for managing educational data, particularly in the recording and reporting of grades. The main advantages lie in the time efficiency gained and the higher level of data accuracy compared to conventional manual methods (Rando et al., 2024; Simarmata, 2023). Thus, the Excel-based E-Report system has successfully facilitated the transformation process from traditional recording to digital data management in a gradual and planned manner.

2. Benefits and Advantages of Using Microsoft Excel for Teachers at SDN Inti Kebun Bunga 5

The use of Microsoft Excel in E-Report management provides various benefits that are directly felt by teachers at SDN Inti Kebun Bunga 5, especially for grades 1 to 5. Excel is used as a medium to enter, calculate, and recap student scores before the data is integrated into a more sophisticated and modern website-based E-Report system. This is in line with the findings at SDN Cawang 09 Jakarta, where the initial grade processing is still done manually using Microsoft Excel by teachers and school operators before the data is processed in a web-based E-Report application that allows faster access and more efficient data management (Suyati, 2023).

Excel simplifies the calculation of average scores and automatically converts numerical scores into letter grades or predicate categories according to applicable regulations. The use of this feature significantly reduces the manual workload of teachers and minimizes the risk of calculation errors that often occur when the process is done manually. In addition, Excel's ability to manage data dynamically allows teachers to update student scores regularly and monitor academic progress easily.

Furthermore, Excel also acts as a collaborative medium that supports communication between teachers in the data updating process. This collaboration strengthens coordination among educators and accelerates the process of processing scores in a standardized and consistent manner (Aydin, 2016; Syahrani et al., 2024). The use of Excel as an intermediary in the transition from manual recording to a web-based digital system allows schools to make the most of available technology without having to make drastic system changes (Putri Fajrina & Rusmiyati Aliyyah, 2024). This facilitates the technology adaptation process so that it runs more smoothly and sustainably.

3. Challenges Faced in Using Microsoft Excel for E-Reports

Although the use of Microsoft Excel in managing E-Reports provides many benefits, this study also identified several significant technical and operational challenges. Some teachers experienced difficulties in operating Excel formulas and templates that were quite complex, thereby increasing the potential for data input errors. These obstacles are more pronounced among teachers who do not have a technical background or special training in the use of data processing applications (Fitri & Fatmawati, 2019). This is in line with findings showing that the risk of accidentally deleting formulas and teachers' limited skills in using Excel optimally can slow down the grade processing process and increase input errors (Korib & Subrata, 2025).

In addition, the process of collecting scores, which is still done manually by teachers where data is received from various sources conventionally before being entered into Excel, causes double the workload and increases the risk of duplication and data errors. This condition is a challenge in itself, especially for

teachers who are learning to use Excel on their own without adequate training (Sikas et al., 2023).

As an improvement measure, teachers who sometimes encounter formula errors are provided with assistance and have started using a website-based E-Report system that provides digital attendance, online tests, and more integrated digital storage of report cards and diplomas. This web-based system is able to overcome the limitations of manual data management that occur in Excel, thereby significantly improving the efficiency and quality of data management and responding to the increasing need for education digitization (Hendra & Arifin, 2018).

4. Strategic Efforts and Institutional Support

To overcome obstacles and optimize the use of technology in education data management, schools have developed and implemented web-based school management information systems that improve data integration and facilitate real-time access to information for teachers and administrative staff. The experience at SDN 109 Seriti shows that web-based systems accelerate the process of grade processing and administration with better data integration (Malius et al., 2021). At SD Negeri 29 Jakarta, the implementation of a web-based academic system has successfully increased the efficiency of academic data management while reducing input errors and providing easy access to information for teachers and students in real-time (Sari, 2015). In addition, research at SMP Islam Darussalam confirms that web-based systems are an important foundation for broader school administration digitization, while also addressing the limitations of data management using Microsoft Excel, which is still manual and lacks integration (Efendi & Azizah, 2023).

Teacher training and mentoring are conducted on an ongoing basis to improve their competence in managing data using Microsoft Excel and web-based digital systems. Proficient teachers serve as facilitators to help colleagues who are not yet familiar with the technology. Research in West Jakarta shows that interactive training and ongoing mentoring are effective in improving teacher skills (Oktaviani et al., 2024). Another study confirms that a participatory and intensive approach enables proficient teachers to actively mentor their colleagues who have difficulty using data processing technology (Saputra, 2022). In addition, Microsoft Excel training not only improves technical skills but also contributes to improving the quality of education and readiness for the era of digitalization of educational administration (Karuniawan et al., 2024).

Institutional support in the form of providing hardware, adequate internet networks, and cloud-based data storage facilities is also crucial for the smooth implementation of the system. In addition, schools implement standardized template formats and routine data backup procedures to reduce the risk of errors and loss of important data. Periodic evaluation of the system and reporting are also important to ensure data quality and enable continuous improvement so that data management remains adaptive to technological developments and user needs (Wijaya, 2020).

5. Interpretation and Integration of Findings

The results of this study confirm various previous theories and findings that state that the use of information technology in educational data management can improve the efficiency, accuracy, and transparency of educational administration (Pujiastuti et al., 2022; Wahyudi et al., 2024). The

application of Microsoft Excel as an E-Report medium at SDN Inti Kebun Bunga 5 is a concrete example of the use of simple but effective technology to support the assessment system at the elementary school level.

The implementation model used shows a strategic step-by-step approach, starting from the design of a structured Excel template to the use of automatic formulas such as AVERAGE, IF, and VLOOKUP. This is in line with the findings of (Rando et al., 2024) and (Simarmata, 2023), which state that the use of Microsoft Excel can simplify the process of processing scores and improve the accuracy of calculations.

This hybrid approach between manual and digital methods through Excel allows teachers to gradually adapt to the digitization system without having to rely entirely on application-based platforms. Such a strategy is highly relevant to schools with limited infrastructure and varying technical capabilities among teachers (Fitri & Fatmawati, 2019; Korib & Subrata, 2025). This is also in line with the findings (Yusmah sari et al., 2024) that training and mentoring are essential to encourage teachers' competence in utilizing data processing software optimally.

Thus, the implementation model of Microsoft Excel-based E-Report cards at SDN Inti Kebun Bunga 5 can be used as a reference for other schools in implementing a digital assessment system that is efficient, adaptive, and contextually appropriate. This approach not only improves the quality of grade management but also contributes significantly to the development of sustainable technology-based educational management practices.

IV. CONCLUSION

Based on the results and discussion of the research on the implementation of Microsoft Excel as an E-Report medium at SDN Inti Kebun Bunga 5, it can be concluded that the application of Excel-based E-Reports is carried out through systematic stages, starting from the design of structured templates and the use of automatic formulas to facilitate the management of student grades, attitudes, and attendance data. The use of Microsoft Excel has proven to be effective as a medium for processing assessment data that is capable of gradually connecting manual recording with digital systems.

The use of Microsoft Excel provides significant benefits for teachers, such as increased efficiency in processing grades, reduced risk of input errors, and encouraging collaboration between teachers in data updating and reporting. Excel serves as a transitional bridge to a more modern and integrated website-based E-Report system. However, there are technical and operational obstacles, including teachers' limited ability to operate Excel formulas and the double workload due to the data collection process still being done manually. The development of a web-based system in grade 6 is a solution to these limitations by providing more complete and integrated digital features.

The strategic efforts made by the school, in the form of regular training, technical assistance from more proficient teachers, and institutional support in the form of hardware and internet network provision, are important factors in the successful implementation of the Excel-based E-Report and the transition to a more advanced digitization system. The essence that can be taken from these findings is the importance of an adaptive and gradual approach in the application of educational information technology, taking into account the readiness of human resources and institutional support. The hybrid model between Microsoft Excel and web-based systems can be used as a reference in

the development of effective and efficient educational data management, especially in elementary schools with limited technological resources.

REFERENCES

- Adfani. (2022). Analisis Penerapan Aplikasi E-Rapor Pada Sd Negeri 4 Banda Aceh.
- Aryananda, A. (2022). Pembuatan Sistem Informasi E-Rapor Pada Sdn 1 Sekotong Tengah Dengan Metode Extreme Programming.
- Aydin, S. (2016). Using Excel in Teacher Education for Sustainability. *Journal of Teacher Education for Sustainability*, 18(2), 89–104. <https://doi.org/DOI: 10.1515/jtes-2016-0017>
- Danuri, & Maisaroh, S. (2019). Metode Penelitian Pendidikan. Penerbit Samudra Biru (Anggota IKAPI).
- Efendi, S., & Azizah, N. (2023). Rancang Bangun Sistem Informasi Sekolah Sebagai Media Pendataan Berbasis Web Di Smp Islam Darussalam. *Edusaintek: Jurnal Pendidikan, Sains dan Teknologi*, 10(1), 193–211. <https://doi.org/10.47668/edusaintek.v10i1.665>
- Fitri, K. U., & Fatmawati, A. (2019). Sistem Informasi Pelanggan pada Bengkel Marno Jaya Motor. *Jurnal Teknik Elektro*, 19(01). <https://doi.org/10.23917/emitov19i1.7529>
- Hendra, & Arifin, Y. (2018). Web-based Usability Measurement for Student Grading Information System. Elsevier B.V., 238–247. <https://doi.org/10.1016/j.procs.2018.08.171>
- Jamalia, Huriyah, L., & Yuliaty, W. (2022). E-Report Application: The Role of Stakeholders in The Assessment System in Schools. 06(04), 999–1009. <https://doi.org/10.33650/al-tanzim.v6i4.3112>
- Karuniawan, H., Fadli, S., & Rianis, B. (2024). Pelatihan Microsoft Office Excel Sebagai Upaya Peningkatan Kompetensi Siswa SMKN 1 Praya Tengah Dalam Mengolah Data. *Bumi : Jurnal Hasil Kegiatan Sosialisasi Pengabdian kepada Masyarakat*, 2(3), 18–27. <https://doi.org/10.59841/bumi.v2i3.149>
- Korib, I. F., & Subrata, J. (2025). Efektivitas Penggunaan Microsoft Excel Dalam Pengolahan Nilai Rapor Siswa Di Smk Ype Nusantara Slawi. *JATI (Jurnal Mahasiswa Teknik Informatika)*, 9(2). <https://ejournal.itn.ac.id/index.php/jati/article/download/13150/7305/>
- Malius, H., Dani, A. A. H., & Apriyanto. (2021). Sistem Informasi Sekolah Berbasis Web Pada Sekolah Dasar Negeri (Sdn) 109 Seriti. *Indonesian Journal Of Education And Humanity*, 1(3). <https://ijohm.rcipublisher.org/index.php/ijohm/article/view/28>
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook* (3rd ed.). SAGE Publications, Inc.
- Nasution, A. F. (2023). Metode Penelitian Kualitatif. CV. Harfa Creative.
- Oktaviani, A. A., Tarigan, J. S., Dewi, R. N., Fardila, D., & Balqist, N. S. (2024). Pelatihan Pengoperasian Microsoft Excel Dalam Pengelolaan Kas Bagi Guru-Guru. *Community Engagement & Emergence Journal*, 5(2), 211–219. <https://doi.org/10.37385/ceej.v5i2.4988>
- Pujiastuti, N. R. D., Tarmuji, A., & Prahara, A. (2022). Pelatihan Pemanfaatan Aplikasi Rapor K-13 Berbasis Web di SD Muhammadiyah Sokonandi Yogyakarta. 1878–1884.

- Putri Fajrina, F., & Rusmiyati Aliyyah, R. (2024). Elektronik Raport: Implementasi Sistem Informasi Manajemen Pada Sekolah Dasar. *Karimah Tauhid*, 3(3).
- Rando, Darmawan, & Almansyah. (2024). Optimalisasi E-Rapor Berbasis Daring di SDN 1 Bungi. *Jurnal Pendidikan Tambusai*, 8(1), 6486–6495. <https://doi.org/10.31004/jptam.v8i1.13392>
- Sanjaya, & Rudi Sanjaya, M. (2023). Pemanfaatan Metode User Centered Design Pada Aplikasi E-Rapor Berbasis Website Di SDN 11 Rantau Bayur. 5(1), 113–119. <https://doi.org/10.47233/jteksis.v5i2.788>
- Saputra, A. (2022). Pelatihan Penggunaan Microsoft Excel untuk Pengolahan Data Pendidikan di SMK Satya Bhakti 2 Jakarta Timur. *Jurnal Abdi Masyarakat Indonesia (JAMSI)*, 2(2), 457–464. <https://doi.org/10.54082/jamsi.271>
- Sari, R. (2015). Sistem Informasi Akademik Berbasis Web Pada Sd Negeri 29 Jakarta. *Jurnal Sistem Informasi Stmik Antar Bangsa*, 4(2). <https://www.neliti.com/id/publications/335085/sistem-informasi-akademik-berbasis-web-pada-sd-negeri-29-jakarta>
- Sikas, O. R., Luan, F., & Mada, G. S. (2023). Workshop Penggunaan Microsoft Excel dalam Pembuatan Aplikasi E-Rapor bagi Guru-guru di Wilayah Insana Tengah. *TONGKONAN: Jurnal Pengabdian Masyarakat*, 2(1). <https://doi.org/doi:10.47178/tongkonan.v2i1.2021>
- Simarmata, S. (2023). Aplikasi Dan Panduan Pembuatan Raport Berbasis Excel Pada Sds As Salam Pamulang Tangerang Selatan. *Jurnal Ilmu Komputer dan Science*, 2(7), 1874–1879.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif Kualitatif dan R & D*. Alfabeta.
- Suyati. (2023). E-Rapor Pada Sekolah Dasar Negeri Cawang 09 Jakarta Berbasis Web. 10(1). <https://ejurnal.nusamandiri.ac.id/index.php/prosisko/article/view/5234>
- Syahrani, M. T., Nuranti, G., Susanti, Y., & Juhanda, A. (2024). Keterampilan Kolaborasi Siswa Melalui Penerapan Asesmen Autentik Berbantuan Model Cooperative Integrated Reading and Composition Scientific Approach (CIRSA) Pada Konsep Klasifikasi Hewan. 10(04), 507–516. <https://doi.org/10.22437/biodik.v10i4.36546>
- Wahyudi, M. A. S., Rahmawati, Y., & Sumarno. (2024). Sistem Informasi Raport Digital Sd Berbasis Web Pada Sekolah Dasar Negeri Kemiri. 9(4). <https://doi.org/10.29100/jipi.v9i4.5482>
- Wijaya, W. M. (2020). Dampak Implementasi Sistem Informasi Manajemen Pendidikan pada Kegiatan Akademik di Sekolah. *Jurnal Penelitian Pendidikan*, 20(1), 129–135. <https://doi.org/10.17509/jpp.v20i1.24564>
- Yusmah sari, J., Purnamasari Pasrun, Y., & Muchtar, M. (2024). Training on the Use of Report Application Based on Ms. Excel with Curriculum 2013 for Teachers of SDN 105 Kendari. *Mekongga: Jurnal Pengabdian Masyarakat*, 1(2). <https://doi.org/10.69616/mekongga.v1i2.192>