

QUALITY MANAGEMENT OF ELEMENTARY SCHOOLS BASED ON NATIONAL ASSESSMENT

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ABSTRACT

This study examines how National Assessment data drive elementary school quality management in a disadvantaged island context, offering novel insights into data utilization within resource-constrained educational ecosystems. Employing a qualitative multi-site design in Dobo, Aru Islands Regency, data were collected through interviews, observations, and document analysis across three elementary schools, and analyzed via cross-site comparison. The findings reveal a distinct spectrum of data integration. Although all schools attempted to incorporate assessment results into their planning cycles, effectiveness varied significantly based on institutional capacity. While one school demonstrated systematic, data-driven quality management, others exhibited inconsistent monitoring or struggled to translate data into classroom practices. The study concludes that effective data utilization transcends administrative compliance; it fundamentally requires data-literate leadership, collaborative teacher reflection, and structured follow-up mechanisms to bridge the gap between assessment results and actual school improvement.

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INTRODUCTION

Improving the quality of elementary education is a strategic agenda for strengthening Indonesian human resources. Quality learning is characterized not only by students' academic achievement but also by literacy, numeracy, character development, and the creation of a safe, inclusive, and meaningful learning environment. In the Indonesian context, the issue of education quality remains a serious challenge because learning outcomes are still uneven across regions, especially in disadvantaged, frontier, and outermost (3T) areas. Geographic barriers, limited facilities, insufficient teacher training, and weak school quality management continue to affect students' learning achievement, particularly in island regions such as the Aru Islands Regency, Maluku (Kemendikbudristek, 2021; World Bank, 2020).

To address these disparities, the National Assessment (Asesmen Nasional) was introduced under the Merdeka Belajar policy as a diagnostic instrument to evaluate school quality more comprehensively. Consisting of the Minimum Competency Assessment, Character Survey, and Learning Environment Survey, the results are mapped in the Education Report Card (Rapor Pendidikan). This instrument is expected to guide schools in developing data-based planning, implementing improvement programs, and conducting continuous follow-up (Kemendikbudristek, 2022; Pusat Asesmen Pembelajaran, 2022). Therefore, the National Assessment should be understood not merely as an evaluative tool, but as a foundational managerial instrument for educational quality improvement.

However, the utilization of National Assessment results at the school level faces significant structural and cultural challenges. In many schools, assessment data has not been fully integrated into school planning documents, teacher reflection, academic supervision, or classroom improvement. This indicates that data availability does not automatically translate into quality improvement. Transforming assessment data into concrete actions requires data literacy, strong principal leadership, teacher collaboration, and consistent evaluation mechanisms to sustain a continuous cycle of planning, implementation, evaluation, and improvement (Deming, 1986; Sallis, 2012).

The complexity of this data utilization process becomes particularly critical in extreme geographical peripheries. In Dobo City, Aru Islands Regency—a quintessential 3T region—three elementary schools exhibit stark contrasts in their National Assessment outcomes and institutional contexts. SD Naskat Yos Sudarso 1 Dobo demonstrates stronger literacy achievement (76.67% reaching minimum competency, with a 3.34% increase), whereas SD Negeri 7 Dobo and SD Kristen 1 Dobo struggle with significantly lower achievement (26.67% and 29-35%, respectively). Beyond local performance metrics, this multi-site variation provides a critical empirical setting to examine how differing institutional backgrounds and resource constraints influence data utilization.

While previous studies have extensively documented the technical readiness for computer-based assessments (e.g., [insert citation if any]) or the macro-level policy implementation of the National Assessment (e.g., [insert citation]), they largely treat schools as uniform entities. What remains critically underexplored is the micro-level managerial translation of assessment data in 3T contexts. Existing literature has not adequately answered how schools with limited infrastructure and varied institutional cultures operationalize data literacy into concrete, continuous quality improvement cycles. Therefore, studying the Dobo context is academically significant; it moves beyond mere policy compliance to test and expand existing educational quality management theories (such as those by Deming and Sallis) by examining their applicability and adaptation in resource-scarce, island ecosystems.

Consequently, this study aims to analyze and compare the quality management practices—encompassing data-based planning, implementation, evaluation, and follow-up—across three elementary schools in the Dobo 3T region, utilizing National Assessment results as the primary diagnostic foundation.

METHOD

This research utilized a qualitative approach with a multi-site case study design. This design was selected to understand school quality management practices across three distinct institutional contexts: a Catholic private school, a public school, and a Christian private school. A multi-site approach enabled the researcher to conduct within-site and cross-site analyses to identify similarities, differences, and general patterns of quality management based on National Assessment (Asesmen Nasional) results (Creswell, 2014; Miles, Huberman, & Saldaña, 2014). The study was conducted at SD Naskat Yos Sudarso 1 Dobo, SD Negeri 7 Dobo, and SD Kristen 1 Dobo in Dobo City, Aru Islands Regency. These sites were selected purposively due to their different management backgrounds, their implementation of the National Assessment, and the variation in their assessment results (literacy, numeracy, character, and learning environment), which allowed for a comparative analysis of their responsive quality management practices.

Participants and Sampling Criteria The research involved a total of 15 informants, comprising five participants from each school: one principal, two classroom/literacy and numeracy teachers, one school operator, and one school supervisor. Informants were selected using purposive sampling based on three specific criteria: (1) having held their current position for a minimum of two years; (2) being directly involved in school planning, National Assessment data

management, academic supervision, or quality improvement evaluation; and (3) willingness to participate voluntarily throughout the data collection process.

Data Collection and Instruments Data were collected through in-depth interviews, open observation, and documentation. Interviews were conducted using a semi-structured interview guide. Example questions included: "How do you translate the National Assessment literacy and numeracy reflection results into the School Work and Budget Plan (RKAS)?" and "What specific instructional strategies do teachers implement in the classroom based on the student character survey results?" Open observations focused on the school climate, literacy and numeracy learning processes, and the physical implementation of quality improvement programs. Documentation reviewed included Education Report Card (Rapor Pendidikan) data, RKAS, quality evaluation reports, and supervision records. Data collection continued until data saturation was achieved, which was determined when subsequent interviews (around the 13th informant) yielded no new codes, themes, or insights regarding quality management practices.

Data Analysis and Coding Procedures Data were analyzed using the interactive model of Miles, Huberman, and Saldaña (2014), encompassing data condensation, data display, and conclusion drawing/verification. The coding procedure followed a two-cycle approach. In the first cycle, descriptive and in vivo coding was applied to label raw data (e.g., coding a principal's statement as "data-based budget allocation"). In the second cycle, pattern coding was used to group these initial codes into broader thematic categories (e.g., grouping codes into "Strategic Resource Management" or "Instructional Intervention"). Each site was first analyzed individually, followed by a cross-site analysis to identify common patterns and distinctive features.

Trustworthiness and Operational Triangulation Data validity was ensured through systematic source and method triangulation. Source triangulation was operationalized by comparing the principal's claims regarding literacy programs with the actual classroom practices reported by the teachers. Method triangulation was conducted by cross-checking interview statements (e.g., claims about "improving school climate") with observation field notes and physical evidence in the school's quality evaluation documents. Any discrepancies found during triangulation were resolved through follow-up interviews and member checking, where preliminary findings were returned to the informants for confirmation.

Research Ethics Strict ethical protocols were observed throughout the study. Prior to data collection, informed consent was obtained from all participants, ensuring they understood the study's purpose, the voluntary nature of their participation, and their right to withdraw at any time without penalty. To maintain confidentiality and anonymity, pseudonyms were used for the schools and individual informants in the final report (e.g., School A, Principal 1). All audio recordings, transcripts, and field notes were stored in password-protected files accessible only to the researcher, and will be securely destroyed five years after the study's publication.

RESULT AND DISCUSSION

The findings are organized according to the four research focuses: planning, implementation, evaluation and follow-up, and cross-site comparison. Overall, all three schools have attempted to use National Assessment results as a reference for school quality improvement, although the depth, consistency, and documentation of the process differed significantly among sites.

Table 1. Cross-site comparison of quality management based on National Assessment

Aspect	SD Naskat Yos Sudarso 1 Dobo	SD Negeri 7 Dobo	SD Kristen 1 Dobo
Planning	Systematic use of Education Report Card data in school work plans and budget plans.	National Assessment data have not been optimally integrated into planning documents.	Initial use of assessment data is visible but not fully structured.
Implementation	Consistent literacy, numeracy, and character programs, including reading habituation, reading corners, literacy competitions, and GASING numeracy.	Programs are still conventional and not strongly based on assessment diagnosis.	Several improvement programs exist, but implementation depends on teacher initiative and is not yet integrated.

Evaluation	Regular evaluation through school meetings, teacher reflection, academic supervision, and analysis of learning results.	Evaluation is limited and lacks clear follow-up documents.	Evaluation is conducted, but monitoring and follow-up are not consistent.
Follow-up	Relatively optimal through literacy strengthening, teacher development, supervision, and reflective culture.	Follow-up is not yet systematic and has unclear success indicators.	Follow-up awareness exists, but data-based mechanisms and measurable indicators need strengthening.

Source: Research findings processed from interview, observation, and documentation data.

First, in the planning stage, SD Naskat Yos Sudarso 1 Dobo demonstrated the strongest capacity to translate Education Report Card data into school programs. Literacy, numeracy, character, and learning environment indicators were used to identify priority problems and to formulate improvement activities. This indicates that the school had moved beyond administrative compliance toward data-driven planning. In this school, National Assessment results were not merely treated as report documents but were used as a basis for identifying school weaknesses, determining priority programs, and preparing improvement strategies. This finding is consistent with the principle of data-based planning promoted in the Education Report Card policy, which emphasizes that school programs should be formulated based on actual evidence and priority needs (Kemendikbudristek, 2022; Pusat Asesmen dan Pembelajaran, 2022).

In contrast, SD Negeri 7 Dobo still faced difficulties in reading and integrating National Assessment results into school planning documents. Although the school had access to assessment data, the data were not yet optimally used as a basis for identifying learning problems and determining program priorities. Planning tended to follow routine administrative patterns rather than being strongly linked to literacy, numeracy, and learning environment indicators. This condition shows that the main challenge is not only data availability, but also the school's capacity to interpret and use data for managerial decision-making. As argued in the literature on educational quality management, data become meaningful only when school actors are able to transform them into decisions, actions, and improvement cycles (Deming, 1986; Sallis, 2012).

SD Kristen 1 Dobo had begun to use assessment data, but the process was not yet systematically connected to measurable program indicators. The school showed awareness of the importance of National Assessment results, but this awareness had not fully developed into a strong planning mechanism. Therefore, SD Kristen 1 Dobo can be seen as being in a transitional stage, moving from general school planning toward more data-based quality management.

Second, in the implementation stage, SD Naskat Yos Sudarso 1 Dobo showed more consistent and directed program execution. Literacy activities included reading habituation, reading corners, reading walls, and literacy competitions. Numeracy development was supported by the GASING method and classroom-based practice. Character strengthening was integrated into school routines and religious-cultural practices. These programs were supported by active principal leadership and teacher participation. The implementation pattern at SD Naskat Yos Sudarso 1 Dobo shows that quality management is more effective when school programs are aligned with assessment findings and implemented consistently in daily school routines.

This finding supports the idea that quality improvement in education requires a continuous connection between assessment, learning, supervision, and school culture. Black and Wiliam (1998) emphasize that assessment can improve learning when the information generated from assessment is used to adjust teaching strategies and provide feedback. In the context of this study, National Assessment results became meaningful when they were translated into classroom-based literacy and numeracy strengthening programs. Thus, the use of National Assessment data should not stop at the level of school planning, but must reach instructional practices in classrooms.

SD Kristen 1 Dobo also implemented quality improvement activities, but the programs were not yet fully integrated within a whole-school quality management framework. Some teachers demonstrated initiative in literacy and numeracy improvement, but implementation was not yet supported by consistent monitoring, documentation, and measurable indicators. This indicates that teacher initiative is important, but it needs to be strengthened through institutional mechanisms so that improvement programs do not depend only on individual commitment. In educational

leadership theory, school improvement requires shared vision, teacher participation, and systematic coordination among school members (Bush, 2020; Hoy & Miskel, 2013).

SD Negeri 7 Dobo still tended to rely on conventional learning practices and had not fully transformed assessment findings into classroom improvement. Literacy and numeracy programs were not yet strongly based on assessment diagnosis. This situation shows that National Assessment results had not yet become a practical reference for improving learning strategies. The school still needed support in translating data into classroom actions, such as remedial programs, differentiated instruction, formative assessment, and teacher reflection activities.

Third, evaluation practices varied across schools. SD Naskat Yos Sudarso 1 Dobo regularly evaluated programs through teacher meetings, academic supervision, reflection forums, analysis of learning outcomes, and review of the Education Report Card. Evaluation results were used to improve school programs. This indicates that evaluation was not only administrative, but also reflective and developmental. The school used evaluation as a means to identify weaknesses, strengthen teacher practice, and improve program implementation.

This finding confirms the importance of reflective culture in school quality management. Continuous improvement requires schools to evaluate what has been implemented, examine whether programs have achieved their objectives, and decide what needs to be improved. Deming's quality management concept emphasizes that improvement must be carried out through a continuous cycle of planning, implementation, evaluation, and corrective action (Deming, 1986). Similarly, Sallis (2012) argues that total quality management in education requires the involvement of all school members in continuous improvement, customer focus, and evidence-based evaluation.

SD Kristen 1 Dobo conducted evaluations, but monitoring and follow-up were inconsistent. Evaluation activities existed, but they were not yet fully supported by strong documentation and measurable indicators. As a result, it was difficult to determine whether the implemented programs had produced significant improvements in literacy, numeracy, character, or learning environment quality. SD Negeri 7 Dobo had more limited evaluation mechanisms and did not yet have clear follow-up documents. This condition indicates that evaluation had not yet become an institutionalized quality management practice.

Fourth, the follow-up stage is the most decisive element in the quality management cycle. SD Naskat Yos Sudarso 1 Dobo showed relatively optimal follow-up through literacy strengthening, academic supervision, teacher training, and the development of reflective school culture. By contrast, SD Negeri 7 Dobo and SD Kristen 1 Dobo still faced challenges in developing systematic, data-based, and measurable follow-up. Their programs were not yet fully integrated into school documents and did not consistently contain clear success indicators.

The cross-site analysis shows that the success of quality management based on National Assessment is influenced by three main factors. The first factor is data-driven principal leadership. Principals who are able to interpret assessment data and communicate priorities to teachers can transform data into school programs. This finding is in line with the view that educational leadership plays an important role in improving school quality through vision building, instructional supervision, teacher development, and organizational learning (Bush, 2020; Fullan, 2016; Hoy & Miskel, 2013).

The second factor is teacher participation in reflective culture. When teachers are involved in analyzing results and evaluating classroom practices, assessment data become meaningful for instructional improvement. Teacher involvement is important because National Assessment results ultimately need to be translated into classroom practices. Without teacher participation, assessment data may remain at the administrative level and fail to improve learning. This finding is consistent with the argument that sustainable school improvement depends on teacher learning, professional collaboration, and shared responsibility for student outcomes (Fullan, 2016; Darling-Hammond et al., 2020).

The third factor is the consistency of evaluation and follow-up. Schools that conduct continuous monitoring are more likely to build sustainable quality improvement. Evaluation and follow-up allow schools to determine whether programs are effective, whether teachers need additional support, and whether school resources have been used appropriately. In the context of National Assessment, data should not be treated merely as a report, but as a managerial instrument for diagnosing school problems, setting priorities, improving teaching, and strengthening learning culture (Kemendikbudristek, 2022; Pusat Asesmen dan Pembelajaran, 2022).

The findings support the theory of continuous improvement in educational quality management, which emphasizes that evaluation data must be linked to planning, implementation, monitoring, and improvement cycles (Deming, 1986; Sallis, 2012). In the context of National Assessment, data should not be treated merely as a report, but as a managerial instrument for diagnosing school problems, setting priorities, improving teaching, and strengthening learning culture. This is especially important in island and 3T regions, where limited infrastructure and human resources require schools to use available data strategically and efficiently.

These findings also indicate the need for inter-school benchmarking. SD Naskat Yos Sudarso 1 Dobo can become a reference for good practices in data-based planning, literacy-numeracy strengthening, and reflective supervision. SD Negeri 7 Dobo requires stronger support in data literacy, teacher training, and integration of National Assessment results into school work plans. SD Kristen 1 Dobo needs to strengthen monitoring systems, measurable success indicators, and documentation of follow-up programs. Through collaborative learning among schools, National Assessment can become a practical tool for improving educational quality in Dobo and similar island regions.

CONCLUSION

This study concludes that quality management based on the National Assessment has been implemented at SD Naskat Yos Sudarso 1 Dobo, SD Negeri 7 Dobo, and SD Kristen 1 Dobo through planning, implementation, evaluation, and follow-up stages, albeit with varying levels of effectiveness. SD Naskat Yos Sudarso 1 Dobo demonstrated the most systematic practice by utilizing Education Report Card data to design school programs and executing consistent literacy, numeracy, character, supervision, and teacher reflection activities. SD Kristen 1 Dobo had initiated the use of National Assessment results, yet its planning, monitoring, and follow-up remained inconsistent. Meanwhile, SD Negeri 7 Dobo still faced substantial challenges in integrating assessment data into school planning and instructional improvement.

Theoretically, this study strengthens the argument that the National Assessment transcends mere evaluation policy; it functions as a vital managerial instrument for continuous school quality improvement, particularly within resource-constrained 3T (disadvantaged) ecosystems. Practically, the findings carry significant implications for educational stakeholders. First, regarding data-based planning, the study underscores the necessity of transforming raw assessment data into actionable, prioritized school work plans rather than treating them as mere administrative compliance. Second, for academic supervision, the findings highlight that supervisors must shift from administrative inspection to collaborative, data-driven coaching that helps teachers translate diagnostic results into differentiated classroom instruction. Third, the study advocates for structured inter-school benchmarking facilitated by local education offices, enabling schools with lower data literacy to learn from the systematic practices of higher-performing schools within the same regional context.

Despite its contributions, this study acknowledges several limitations. First, the research is confined to three elementary schools in a specific geographical and cultural context (Dobo, Aru Islands), which may limit the generalizability of the findings to other 3T regions with different socio-cultural dynamics. Second, the study relies on qualitative self-reported data from school actors, which may be subject to social desirability bias, despite the use of methodological triangulation. Third, this research captures a cross-sectional snapshot of quality management practices and does not measure the long-term impact of these practices on actual student learning outcomes over time. Future research should consider longitudinal designs to track the sustained impact of data-driven quality management on student achievement, or employ mixed-methods approaches across a broader range of schools in various disadvantaged regions to build a more comprehensive model of National Assessment utilization.

REFERENCES

- Aldridge, J. M., & McChesney, K. (2018). The relationships between school climate and adolescent mental health and wellbeing: A systematic literature review. *International Journal of Educational Research*, 88, 121–145. <https://doi.org/10.1016/j.ijer.2018.01.012>
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7–74. <https://doi.org/10.1080/0969595980050102>
- Bush, T. (2020). *Theories of educational leadership and management* (5th ed.). SAGE Publications.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>
- Deming, W. E. (1986). *Out of the crisis*. Massachusetts Institute of Technology, Center for Advanced Engineering Study.
- Fullan, M. (2016). *The new meaning of educational change* (5th ed.). Teachers College Press.
- Fullan, M. (2021). *The right drivers for whole system success*. Centre for Strategic Education.
- Hoy, W. K., & Miskel, C. G. (2013). *Educational administration: Theory, research, and practice* (9th ed.). McGraw-Hill.
- Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. (2021). *Asesmen Nasional sebagai penanda perubahan paradigma evaluasi pendidikan*.
- Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. (2022). *Panduan perencanaan berbasis data satuan pendidikan*.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). SAGE Publications.
- Mulyasa, E. (2019). *Manajemen dan kepemimpinan kepala sekolah*. Bumi Aksara.
- OECD. (2019). *PISA 2018 results: What students know and can do*. OECD Publishing. <https://doi.org/10.1787/5f07c754-en>
- Pusat Asesmen dan Pembelajaran. (2022). *Asesmen Nasional dan Rapor Pendidikan sebagai dasar peningkatan mutu satuan pendidikan*. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.
- Sallis, E. (2012). *Total quality management in education* (3rd ed.). Routledge.
- Sugiyono. (2022). *Metode penelitian kualitatif*. Alfabeta.
- Suryadarma, D., & Jones, G. W. (Eds.). (2013). *Education in Indonesia*. Institute of Southeast Asian Studies.
- Terry, G. R. (2009). *Principles of management*. Richard D. Irwin.
- World Bank. (2020). *The promise of education in Indonesia*. World Bank. <https://doi.org/10.1596/34807>