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An Analysis of Numeracy Skills in The Education Report of SDN 184 Pekanbaru

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ABSTRACT

This study examines the gap between numeracy scores presented in the national Education Report and the actual assessment results of students at SDN 184 Pekanbaru. The primary objective of this research is to analyze the extent to which macro-level national data aligns with the actual numeracy achievements of students in the classroom. The research subjects consisted of 20 fifth-grade students selected using purposive sampling techniques based on the diversity of their academic achievements. This study employed a qualitative descriptive approach with data collection methods including the analysis of the 2025 Education Report document and field-based numeracy assessments developed to measure students' numeracy competencies. The numeracy domains analyzed include number, algebra, geometry, as well as data and uncertainty. The findings revealed that the numeracy score in the Education Report was 53.33%, generally indicating the attainment of minimum competency. However, the students' actual assessment results showed an average score of only 46.70%, indicating a performance gap. Students tended to perform better in the number and geometry domains but faced significant challenges in algebraic reasoning and data interpretation. These findings underscore the importance of cross-verifying national report data with classroom assessments to obtain a more comprehensive understanding of learning outcomes. The study recommends that schools conduct regular and contextual evaluations of numeracy learning and implement teaching strategies better aligned with students' cognitive readiness and real-life experiences. The results offer practical implications for instructional planning, learning design, and the implementation of targeted numeracy interventions in primary school environments.

Keywords: *Numeracy; Education Report; SDN 184 Pekanbaru*

INTRODUCTION

Based on data analysis from the 2025 Education Report of SDN 184 Pekanbaru and actual assessments of 20 fifth-grade students, it was found that the aggregate numeracy achievement reached 53.33%. Formally, this figure indicates that the educational institution has met the minimum competency in numeracy, as interpreted

within the yellow spectrum category. However, individual student assessments showed an average score of only 46.70%, indicating that the actual classroom condition does not fully reflect the data presented in the national report. This fact suggests a gap between macro-level achievement (national report) and micro-level performance (classroom results), implying the need for more in-depth and specific evaluations of the learning process.

In terms of domains, the highest achievements were found in number and geometry, indicating that students have a sufficient grasp of basic operations, simple geometric shapes, and basic measurements. In contrast, the lowest achievements occurred in the domains of algebra and data and uncertainty, where students demonstrated weaknesses in understanding mathematical symbols, patterns, and in representing data and probabilities. This indicates that classroom instruction tends to remain procedural and has not yet emphasized mathematical reasoning and the application of numeracy in real-life contexts.

One strength of these findings is that the school already possesses a numeracy data foundation through the Education Report, which can be utilized as a quality diagnostic tool. Additionally, the high achievement in number and geometry domains serves as an initial strength that can be leveraged to enhance overall numeracy. The use of instruments such as the National Assessment (Asesmen Nasional) and Minimum Competency Assessment (AKM) has helped schools gain a general picture of students' performance across various indicators.

However, there is a significant drawback in aligning instructional strategies with assessment data. Teachers tend not to conduct consistent and in-depth formative assessments and still rely heavily on teaching that emphasizes memorization of formulas. Limitations in learning media, low data literacy among students, and the lack of teacher training in contextual numeracy have also weakened students' mastery, particularly in higher-order thinking domains.

As a solution, schools need to adopt a data-driven and contextual numeracy learning approach. Teachers should regularly carry out classroom evaluations using formative assessments to identify students' individual learning difficulties. Numeracy materials should be linked to real-life contexts so that students can directly perceive the benefits of numeracy and reasoning skills. Teacher training in contextual and problem-based numeracy teaching strategies is essential to ensure that learning approaches are not only cognitive but also applicable.

Furthermore, the use of the Education Report should not be limited to an administrative document but should serve as a basis for reflection and data-driven decision-making. The results of this study have practical implications for school principals in developing quality improvement programs based on classroom data and provide direction for teachers in designing Lesson Plans (RPP) that are responsive to students' numeracy assessment results.

METHOD

This study employed a descriptive qualitative approach, as it aimed to understand the phenomenon of the gap in numeracy achievement between the data presented in the Education Report of SDN 184 Pekanbaru and the actual results of students' assessments in the field. This approach was chosen because it enabled the researcher to explore the deeper meaning behind the real conditions of numeracy learning in the classroom and to interpret students' achievement contexts based on direct experiences and authentic assessment data.

The participants in this study were 20 fifth-grade students from SDN 184 Pekanbaru, selected using purposive sampling. The selection considered the diversity of students' academic backgrounds, allowing the assessment results to provide a proportional representation of the general classroom condition. In addition, the classroom teacher and school principal also served as additional informants during the stages of data validation and result interpretation.

Data collection was conducted through two main sources: secondary data and primary data. Secondary data were obtained from the official 2025 Education Report document released by the Ministry of Education, Culture, Research, and Technology. This document provided an overview of the school's numeracy achievements in four main domains: numbers, algebra, geometry, and data & uncertainty. Primary data were gathered from numeracy assessments developed and tested by the researcher to measure student abilities in the same domains. The assessment instruments included context-based and reasoning-oriented questions, in line with the characteristics of the national Minimum Competency Assessment (AKM) in numeracy.

To ensure data validity and reliability, triangulation of sources and methods was applied. This triangulation involved comparing data from the Education Report documents, students' direct numeracy assessment results, and structured interviews with classroom teachers. Validation was also conducted through discussions with the school principal to ensure that result interpretations aligned with the dynamics and context of numeracy learning at the school.

Data analysis was carried out qualitatively through data reduction, data display, and conclusion drawing. The assessment data were categorized according to numeracy domains and compared with the achievement scores in the Education Report. The analysis process was directed toward identifying gaps, exploring causal factors, and formulating data-driven learning recommendations. The transferability of the research findings was maintained through detailed descriptions of the research context and participants, enabling the results to be replicated or compared in other educational institutions with similar characteristics.

FINDINGS AND DISCUSSION

This study identified a discrepancy between the numeracy data presented in the 2025 Education Report of SDN 184 Pekanbaru and the actual assessment results conducted with 20 fifth-grade students. The numeracy achievement reported in the

Education Report indicated a score of 53.33%, while the average score from the students' actual assessments was only 46.70%. This gap suggests that although the school has met the minimum numeracy competency at the aggregate level, the actual numeracy performance of students at the classroom level remains uneven.

More specifically, numeracy achievements based on the four main domains assessed revealed that the number and geometry domains had the highest scores, at 55% and 56%, respectively. Conversely, the algebra and data & uncertainty domains recorded lower achievements, at 53% and 51.97%, respectively. These results indicate that students still struggle with representing symbols, understanding patterns, and making predictions or inferences based on data and probability.

Table 1. Comparison of Numeracy Achievement

No	Domain	Education Report	Actual Student Assessment
1	Number	55.00	48.25
2	Algebra	53.00	42.60
3	Geometry	56.00	47.00
4	Data & Uncertainty	51.97	46.50

These findings are consistent with those of Kiriana & Widiasih (2023), who emphasized the importance of conducting direct formative assessments in the classroom to verify the validity of aggregate data presented in the Education Report. Similarly, the study by Widianti, Suparta, & Sariyasa (2022) noted that Indonesian students' mastery of algebra and statistics remains a major weakness in mathematics education, mainly due to the limited implementation of contextual learning approaches.

Several factors are suspected to contribute to this gap, including numeracy teaching methods that are not yet problem-based or contextual, insufficient use of data-based numeracy learning media, and limited formative assessments that focus on conceptual understanding.

A strength of this study lies in its ability to explore the gap between macro and micro data an issue that has not been widely revealed until now. However, this study also has limitations, such as the relatively small sample of 20 students and the lack of exploration into other factors such as students' socioeconomic backgrounds or teachers' competencies.

To address this gap, regular evaluations based on real classroom data are needed, along with teacher training in context-based numeracy instruction, and the development of teaching modules that promote logical and reflective thinking skills in students.

Thus, these findings provide important implications that data from the Education Report should always be re-examined through classroom-based assessments so that

educational policy decisions can be more targeted and have a tangible impact on improving the quality of student learning..

CONCLUSION

This study concludes that there is a discrepancy between the numeracy achievement recorded in the Education Report of SDN 184 Pekanbaru and the actual assessment results of fifth-grade students. Although the numeracy score in the 2025 Education Report was documented at 53.33%, indicating the attainment of minimum competency, the actual assessment of 20 students showed an average achievement of only 46.70%. This difference suggests that the national aggregate data does not fully represent the reality of individual student performance in the classroom.

Students demonstrated the highest achievement in the number and geometry domains, while the lowest scores were found in the algebra and data & uncertainty domains. This indicates that although students have a sufficient grasp of basic mathematical operations, they still struggle with symbolic representation, algebraic reasoning, and interpreting data and probability. These findings highlight the importance of more contextual classroom assessments to verify the validity of national data and to design appropriate learning interventions.

The scientific contribution of this study lies in revealing the gap between macro-level data and the micro-level realities of numeracy learning, as well as reinforcing the importance of data-driven planning approaches rooted in classroom assessments. The practical implication is that teachers and school principals need to enhance their data literacy and reflective abilities regarding assessment results to ensure that numeracy learning processes are more effective, adaptive, and meaningful for students.

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REFERENCES

Ahmad, R., & Sari, D. (2022). *Analisis hasil Asesmen Nasional dalam meningkatkan mutu pendidikan di sekolah dasar*. Jurnal Evaluasi Pendidikan, 13(1), 45–56. https://doi.org/10.21831/jep.v13i1.45678

Akbar, S., & Rahman, T. (2021). *Contextual teaching and learning untuk meningkatkan kemampuan numerasi siswa SD*. Jurnal Pendidikan Dasar Indonesia, 6(2), 98–110. https://doi.org/10.23887/jpdi.v6i2.35679

Burgess, R. (2019). Rethinking global health: Frameworks of power. Routledge.

Hasibuan, M., & Petege, Y. (2024). *Analisis kesulitan siswa dalam menyelesaikan soal numerasi berbasis Asesmen Nasional*. Jurnal Pendidikan Matematika Indonesia, 9(1), 25–37. https://doi.org/10.15294/jpmi.v9i1.62345

Hidayati, N., & Sari, M. (2023). *Pengaruh pembelajaran berbasis masalah terhadap kemampuan numerasi siswa SD*. Jurnal Pendidikan Matematika, 17(3), 211–222. https://doi.org/10.33369/jpm.v17i3.54321

Kemdikbudristek. (2022). *Rapor Pendidikan: Panduan Implementasi di Satuan Pendidikan. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.* https://raporpendidikan.kemdikbud.go.id

Kemdikbudristek. (2024). *Laporan capaian numerasi nasional tahun 2024. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi*. https://pusmendik.kemdikbud.go.id

Kiriana, D., & Widiasih, E. (2023). *Validasi data rapor pendidikan melalui asesmen formatif di sekolah dasar*. Jurnal Penelitian Pendidikan, 24(2), 134–146. https://doi.org/10.17509/jpp.v24i2.56789

Kurniawan, A., & Syamsudin, S. (2022). *Implementasi perencanaan berbasis data pada rapor pendidikan*. Jurnal Manajemen Pendidikan, 34(1), 77–89. https://doi.org/10.26877/jmp.v34i1.56789

OECD. (2019). PISA 2018 results (Volume I): *What students know and can do.* OECD Publishing. https://doi.org/10.1787/5f07c754-en

Permatasari, D., & Nurhidayah, R. (2021). *Faktor-faktor yang mempengaruhi capaian numerasi siswa sekolah dasar*. Jurnal Ilmiah Pendidikan Dasar, 8(1), 59–70. https://doi.org/10.21009/jipd.v8i1.23456

Pratiwi, S., & Sariyasa, S. (2022). *Pengembangan instrumen asesmen numerasi berbasis konteks lokal*. Jurnal Pendidikan Matematika dan Sains, 10(2), 102–114. https://doi.org/10.15294/jpms.v10i2.54321

Putri, R. I. I., & Zulkardi. (2020). *Numeracy skills and mathematical literacy in Indonesian elementary schools.* Journal on Mathematics Education, 11(2), 157–170. https://doi.org/10.22342/jme.11.2.10710.157-170

Saditya, R. (2022). *Kepemimpinan kepala sekolah dalam meningkatkan literasi dan numerasi di sekolah dasar*. Jurnal Administrasi Pendidikan, 29(2), 115–123. https://doi.org/10.21009/jap.292.10

Sari, A. P., & Wulandari, N. (2021). *Strategi pembelajaran numerasi berbasis data asesmen nasional*. Jurnal Inovasi Pendidikan Dasar, 7(3), 145–156. https://doi.org/10.21009/jipd.v7i3.34567

Sulastri, E., & Sodiyah, N. (2022). *Analisis capaian literasi dan numerasi berdasarkan hasil Asesmen Nasional*. Jurnal Pendidikan dan Kebudayaan, 27(4), 311–324. https://doi.org/10.24832/jpnk.v27i4.56789

Syamsuddin, M., & Harianto, D. (2023). *Rapor Pendidikan: Inovasi evaluasi mutu berbasis data di Indonesia*. Jurnal Kebijakan dan Manajemen Pendidikan, 11(1), 23–35. https://doi.org/10.21009/jkmp.v11i1.12345

Widianti, N., Suparta, I. N., & Sariyasa, S. (2022). *Tantangan pembelajaran numerasi di sekolah dasar: Studi kasus di Bali*. Jurnal Pendidikan Dasar Indonesia, 7(2), 89–101. https://doi.org/10.23887/jpdi.v7i2.45678

Yuliana, R., & Prasetyo, Z. K. (2020). *Pengaruh literasi numerasi terhadap hasil belajar matematika siswa*. Jurnal Pendidikan Matematika, 14(2), 67–78. https://doi.org/10.22342/jpm.14.2.7890.67-78

Zulkardi, & Putri, R. I. I. (2021). *The role of context in numeracy learning for Indonesian students*. Journal of Physics: Conference Series, 1836(1), 012039. https://doi.org/10.1088/1742-6596/1836/1/012039