

Research Article

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Instructional Leadership in Analyzing Education Report Cards to Improve Literacy and Numeracy: A Case Study of an STP-Implementing in a High School

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Abstract

Background/purpose. Analysis of educational report cards shows that instructional leadership contributes significantly to improving educational standards. With an emphasis on initiative and collaborative efforts to improve literacy and numeracy outcomes, this study explores the role of instructional leadership in three high schools with different leadership styles. Human resources (HR) are the primary factor in implementing the School Transformation Program (STP).

Materials/methods. This research was conducted in Mataram City. This research uses a qualitative methodology and collects information from educators and school principals through observation, documentation, and interviews.

Results. The findings of the study show that effective instructional leadership techniques for implementing the school's vision and mission are based on an analysis of educational report cards, which recommend prioritized planning, including training teachers, creating a supportive learning environment, and developing a curriculum aligned with student needs. In addition, education report cards are periodically evaluated as part of the preparation of the School Activity Budget Plan (SABP) each year. Planning is based on a priority scale that accounts for advantages and disadvantages in the learning process.

Conclusion. Effective and collaborative instructional leadership can improve students' literacy and numeracy achievement, thereby enhancing overall educational standards. To analyze the education report card optimally, visionary instructional leadership is needed to align the school's vision and mission with efforts to improve literacy and numeracy achievement.



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1. Introduction

The government is striving to advance national education by conducting the National Assessment (NA). The National Assessment consists of three main programs: the Minimum Competency Assessment (MCA), the Character Survey, and the Learning Environment Survey (Ministry of Education and Culture, 2021). The Minimum Competency Assessment (MCA) is part of the National Assessment, which covers reading literacy and numeracy as basic skills that students must possess. It can serve as a reference for schools to reflect on and improve the quality of learning (Masduki et al., 2024a). Through the National Assessment, educators are expected to adapt their teaching strategies to meet students' individual learning levels and to foster character development aligned with the Pancasila Student Profile (Kiriana & Widiasih, 2023). The Education Report Platform serves as a key instrument for disseminating the results of these assessments, with the primary goal of improving the quality of education by providing accurate, relevant, and actionable data to stakeholders at various levels. The results presented serve as a foundation for the continuous improvement of the education system as a whole (Paulo, 2012).

The Education Report Card (ERC) is one of the main evaluation instruments in Indonesia's current education system. It is a digital platform that offers significant improvements over the previous Quality Report Card issued by the Ministry of Education, Culture, Research, and Technology. The ERC platform was developed to communicate the results of the National Assessment (NA), which serves as a national evaluation framework for measuring educational quality. This platform provides comprehensive data on student character development, the quality of the learning environment, and achievements in literacy and numeracy (Budi Teguh Harianto, 2023). The ERC also serves as a reference for curriculum development and the design of learning strategies in schools.

Compared with the previous platform, this platform emphasizes data integration and a quality-oriented approach to educational evaluation (Ministry of Education and Culture, 2022). Systematic analysis of Education Report data allows schools to more accurately identify student needs, monitor learning trends, and design targeted interventions. This enables educators to adapt teaching methods, provide remedial support, and develop personalized learning plans to improve student achievement. The implementation of the Education Report Platform aligns with the Ministry of Education and Culture's policy on the Independent Curriculum, which aims to improve the quality of national education (Khatri et al., 2024; Ferry & Muspawi, 2023). Insights from the Education Report analysis can inform the design of effective strategies to improve the learning process (Suwartono, 2025; Greenland et al., 2022). Therefore, the Education Report Card serves not only as an evaluative instrument but also as a strategic guide for stakeholders in formulating policies, refining the curriculum, and enhancing teacher professional development. Proper utilization is crucial to driving continuous, evidence-based improvement in the Indonesian education system.

The Education Report is designed as a technology-based, data-integrated platform. This report serves as a planned evaluation tool to support better decision-making to improve the quality of education in Indonesia. The application of technology in educational evaluation can enhance learning effectiveness. Digitization and technology integration have had positive impacts on school performance and have increased the accessibility and flexibility of learning (Masduki et al., 2024b). The consistency and accuracy of report card information are key issues. Teachers and report card preparers ensure that the information collected and evaluated accurately reflects each student's progress. Analyzing report card data presents a challenge for teachers in identifying literacy and numeracy gaps among students.

Mismatches between students' actual abilities and academic expectations can create substantial barriers to learning. Excessively high expectations can often lead to excessive pressure, which in turn reduces students' motivation and engagement in learning (Khatri et al., 2024). Research has shown

that such discrepancies can lead to frustration and negatively impact academic performance and emotional well-being. Teachers and parents must collaborate in setting achievable learning goals (Donkoh et al., 2023). Decisions regarding goal setting should be based on accurate data obtained from the Education Report Card. This enables educators to gain a clearer understanding of each student's potential and the factors that may hinder academic progress (Suwartono et al., 2025). By identifying these barriers, teachers can design more effective interventions to improve learning outcomes. For meaningful improvement in literacy and numeracy, teachers must implement realistic goal-setting and targeted support strategies. The integration of differentiated learning and technology is crucial to the education system. Marmoah (2022) argues that this approach effectively develops students' literacy and numeracy competencies. Therefore, if used appropriately, the Educational Report Card can serve not only as an evaluative instrument but also as a strategic tool to improve students' reading and mathematics skills (Greenland et al., 2022).

Previous studies have provided limited insights into the Education Report Card's ability to improve learning quality through instructional leadership and technology integration. These studies have focused solely on the technical features of the Education Report Card, failing to systematically leverage data to design targeted interventions that improve students' literacy and numeracy competencies. The link between data-informed decision-making and instructional leadership practices also remains insufficiently examined—particularly within the Indonesian educational context, where digital transformation in schools is still in its formative phase. Since curriculum design, classroom instruction, and the overall learning environment constitute the core focus of instructional leadership, effective leaders are expected to motivate teachers and staff toward achieving shared educational objectives (Aslam et al., 2022; Shal et al., 2024). Consequently, aligning data analytics from the Education Report Platform with instructional leadership frameworks offers a strategic pathway to bridge learning gaps and advance the quality of education in the digital era. Within this framework, the analysis of instructional leadership refines teaching practices, supports continuous professional growth, and evaluates the effectiveness of instructional processes.

2. Literature Review

2.1. Education Report

The National Assessment aims to enable educators to tailor their teaching to students' levels and to foster students' character in accordance with the Pancasila student profile (I Nyoman Kiriana & Ni Nyoman Sri Widiasih, 2023). The Education Report Platform is a critical tool for presenting the results of the National Assessment, a comprehensive evaluation of a country's education system. The platform's primary focus is on improving the quality of national education by providing accurate, relevant data.

The importance of using information obtained from the Education Report Card to develop concrete improvement plans. The Education Report Card presents data used to explore the condition of the learning process. This platform displays education quality indicators and serves as a simplified version of the previous quality report card, yet it plays an equally important role in advancing national education. With the Education Report Card, the government can implement various policies to address the identified issues in education quality. The Education Report Card is designed as a technology-based, data-integrated platform. Generally, the Education Report Card is used as a data-driven, planned evaluation tool to support better decision-making in efforts to improve the quality of education in Indonesia. The application of technology in education evaluation also plays a significant role in increasing learning effectiveness. The education report provides an overview of school and regional education quality based on several key indicators of success. This educational report demonstrates student character, the quality of the learning environment, and literacy and numeracy skills (Harianto, 2023). New policies for evaluating the education system place greater emphasis on

educational quality (Ministry of Education and Culture, 2022). Through comprehensive analysis, schools are better equipped to identify students' needs and trends in success. This enables educational institutions to adjust teaching strategies, provide additional support, and develop targeted improvement plans to improve student academic achievement.

The information generated from the Education Report analysis serves not only as a static report but also as a reference for developing effective strategies to improve the learning process. The available data can be used to formulate more responsive education policies, improve the curriculum, and enhance educator training. Thus, the Education Report serves as a vital tool in the ongoing effort to improve the quality of education at the national level, ensuring that all students have a fair opportunity to reach their potential. The Education Report platform is a website that embodies the latest technological developments. Through the Learning ID account, school stakeholders can access and review results, which are then incorporated into the school's activity plan for the following fiscal year (Ferry & Muspawi, 2023b).

2.2. Instructional Leadership

Collaboration is a key characteristic of instructional leadership. To create effective teaching methods, facilitate professional development, and evaluate instructional practices, instructional leaders work closely with teachers. While positive, the way teachers are managed and evaluated appears inadequate. The study found that while teachers essentially failed to assign tasks to group members, they typically created mixed-ability groups, walked around and supervised, and inspired and encouraged the groups to do their part and accept responsibility (Gedamu & Shewangezaw, 2022). Leaders can foster an atmosphere where educators feel valued and inspired to continuously improve their teaching by fostering a collaborative culture.

Additionally, using data to inform decisions is another aspect of instructional leadership that advances our knowledge of instructional leadership techniques across different socio-cultural contexts (Aldighrir, 2024). The principal and stakeholders analyze the relationship between educational report card data on student learning outcomes, especially literacy and numeracy. As leaders in educational units, they effectively carry out their roles in determining priorities to be presented as a reference in preparing school activity and budget plans (SABP) in accordance with recommendations. One weakness of distributed leadership is the scarcity of empirical evidence supporting its effectiveness in improving student achievement and advancing instructional improvement (Spillane, 2005). Leaders can ensure that every choice they make improves student learning outcomes and learning experiences by using a data-driven approach.

Instructional leadership requires flexibility (Ramos-Pla et al., 2021). To apply leadership techniques and improve organizational leadership, effective leaders utilize and grow their unique personal attributes and dispositions (Leithwood et al., 2019). Leaders in the rapidly evolving field of education must be able to adapt to new challenges, including curriculum revisions or the integration of technology in the classroom. Instructional leaders can ensure the school remains relevant and able to meet students' demands in today's era by adopting a proactive, creative approach. Instructional leadership, also known as learning leadership, is leadership directly related to the learning process. The principal's role in improving teachers' teaching performance is of great significance. One of the most prominent aspects is the vision and mission that must be realized through the learning process (Aslam et al., 2022).

2.3. Education Report on Improving Literacy and Numeracy

The correlation between literacy and numeracy achievement is a crucial factor in assessing and improving students' understanding across subjects. In addition to recording student grades, school report cards indicate how well students understand the material presented in various instructional

settings. Regarding literacy, school report cards serve as assessment instruments that indicate students' proficiency in speaking, writing, and reading. Teachers can identify patterns linking students' literacy skills to their academic success by analyzing literacy and school report cards. Information from school report cards can offer detailed insights into how students' literacy achievement levels influence their understanding of the material covered in class. Furthermore, school leaders should have access to professional development programs to enhance their ability to use data effectively.

In the educational context, report cards play a crucial role in helping students improve their numeracy achievement. The Education Report is a platform that provides data on education system evaluation results, building on previous quality report cards. The new education system evaluation policy places greater emphasis on the quality of education and an integrated system (Ministry of Education and Culture, 2022). The education report card offers a comprehensive overview of how well students have grasped the mathematical principles taught, which is useful for assessing student numeracy progress. A comprehensive picture of students' numeracy abilities can be obtained from data in the education report card, which includes teacher comments, math test results, and assessments from numerical projects. Some of the teacher competencies mentioned are supported by empirical research; conversely, many are discussed and expanded upon in education policy texts. Consequently, they represent knowledge about effective teaching, the capacities of competent instructors, and current (developmental) requirements identified in schools, supported by evidence or studies (Toom et al., 2021).

Educational report cards improve numeracy achievement through data-driven planning that utilizes report card information to identify learning gaps and formulate targeted improvement strategies (Setiawan & Sasongko, 2023). This planning process is student- and teacher-centered, encompassing programs such as numeracy coaching, student competitions, and professional development initiatives, including In-House Training (IHT) for teachers, which incorporates the Independent Curriculum assessment system and the development of test items based on the Minimum Competency Assessment (MCA).

In parallel, schools are strengthening their numeracy support infrastructure by expanding internet connectivity and providing visual and practical learning media, such as murals and laboratory equipment, to facilitate hands-on learning. The integration of the Merdeka Mengajar (MM) Platform further enhances teachers' competencies by providing access to digital teaching materials and professional development features aligned with the Independent Curriculum. Therefore, the implementation of numeracy learning focuses on simultaneously improving facilities, teacher quality, and the academic climate. Monitoring and evaluation are conducted systematically by identifying program targets, timeframes, achievement indicators, and supporting and inhibiting factors. This process ensures that numeracy improvement initiatives are carried out consistently, efficiently, and in an evidence-based manner. With good-quality improvement management based on educational report cards, teacher competencies, student numeracy skills, and the numeracy learning process in schools, improvements can be made.

Furthermore, school report cards significantly impact numeracy achievement and provide valuable feedback to parents and children. Students and parents can more easily identify areas where students' numeracy skills need strengthening by using report cards, which provide organized and unambiguous information. This enables schools and families to collaborate in improving students' numeracy development beyond the traditional classroom. Consequently, report cards are a crucial tool for enhancing students' numeracy achievement and fostering successful mathematics learning.

3. Methodology

3.1. Research Design

This study adopts a mixed-method approach, combining both quantitative and qualitative techniques (Mulisa, 2022), and applies a case study design to deeply investigate the role of instructional leadership in improving literacy and numeracy achievement across three Senior High Schools (SMA) involved in the School Transformation Program (STP) in Mataram City. The government officially designated these schools as STP pilot institutions. The use of a case study design enables the researcher to gain a comprehensive understanding of how instructional leadership is enacted in real educational settings, capturing the strategies employed, the dynamics that occur, and the challenges encountered by school leaders and teachers. Each participating school serves as a distinct unit of analysis, enabling comparative insights that reveal a more nuanced understanding of how leadership practices enhance the quality of literacy- and numeracy-focused learning.

3.2. Data Collection Procedures

The data collection process was carried out in several stages, incorporating direct classroom observations, in-depth interviews, and document analysis. Classroom observations aimed to identify teaching practices and learning interactions as a reflection of the principal's instructional leadership. In-depth interviews were conducted with the principal, teachers, and students to obtain information on the literacy and numeracy programs implemented in each school. Furthermore, document analysis included reviewing educational report cards and performance records on literacy and numeracy achievement. Documents served as supporting evidence for data validity through triangulation.

3.3. Research Instruments

The research instruments included a semi-structured interview guide, an observation protocol, and a document review sheet. The observation protocol was designed to identify and map manifestations of instructional leadership in classroom practices and academic supervision activities. The interview guide was developed based on key indicators of instructional leadership. Meanwhile, the document review sheet was used to examine literacy and numeracy achievement data.

3.4. Data Analysis Techniques

The data analysis process involved document review and quantitative data tabulation. All interview data, observation notes, and document data were interpreted in depth. This process aimed to develop a holistic understanding of effective leadership practices in improving literacy and numeracy outcomes. Data credibility and validation were conducted through triangulation of sources and methods (Santos, 2020; Irawan, 2023) by requesting confirmation from principals, supervisors, and teachers. Quantitative data on literacy and numeracy performance were further analyzed by calculating the appropriate achievement percentages.

4. Results

4.1. Case Studies or Supporting Data

Concrete evidence supporting the effectiveness of educational report cards in improving literacy and numeracy skills is the strong correlation between their use and student academic improvement. A longitudinal study conducted across several secondary schools found a positive relationship between written teacher feedback and the notes included in educational report cards. These results indicate that students' reading and writing skills significantly improved when teachers provided constructive and individualized feedback through these report cards.

A case study involving three senior high schools (SMA) participating in the School Transformation Program (STP) in Mataram City provides insight into how data from educational report cards can be

effectively utilized to design literacy and numeracy intervention programs. Program data revealed that teachers could identify students struggling with reading and math early by analyzing report card information. Students participating in this intervention demonstrated significant improvements in literacy and numeracy skills, demonstrating the crucial role of educational report cards in fostering inclusive, responsive, and sustainable learning practices.

It is clear from these data and case studies that educational report cards serve as a useful instrument for improving students' literacy and numeracy skills, not simply as an official document. Through the use of relevant data and a thorough understanding of the information contained in educational report cards, teachers can create more effective lesson plans, offer relevant support, and improve students' overall academic performance, despite the differences in literacy and numeracy outcomes between intervention schools and regular schools seen in the educational report cards of two public and one private high school, this comparison was seen over two years from 2024-2025.

4.2. Literacy and Numeracy Access

In general, there are 343 public and private senior high schools in West Nusa Tenggara Province, as shown in Table 1. Meanwhile, this study examines literacy and numeracy achievements in three senior high school units that implemented the School Transformation Program (STP) in 2024-2025, comparing them with those in regular schools in Mataram City.

Table 1. List of Senior High Schools in West Nusa Tenggara Province in 2024 (Source: West Nusa Tenggara Province Education Quality Assurance Center 2025)

No.	Regency/City	State	Private	Amount	STP	% STP	Information
1	Kota Mataram	11	21	32	3	9,4%	Sampling
2	West Lombok	14	18	32	3	9,4%	
3	East Lombok	21	50	71	11	15,49%	
4	Central Lombok	17	43	60	3	5%	
5	North Lombok	6	7	13	4	30%	
6	Bima City	5	10	15	4	26,67%	
7	Bima Regency	34	20	34	4	7,4%	
8	Dompu	18	11	29	7	24,14%	
9	West Sumbawa	7	3	10	0	0%	
10	Sumbawa	17	10	27	4	10,815	
	Amount	150	193	343	43	12,54%	
	Total		343			12,54%	

From the above sources, high schools in Mataram City were selected as the research sample because, based on data from BPMP (2025), it shows that of 32 high schools, both public and private, only three high schools participate in the School Transformation Program, which is approximately 9.4%, which are located in the provincial capital and are the first and last schools to undergo the School Transformation Program in the Merdeka Belajar program, so that they can be used as research samples, especially regarding human resources (HR), namely principals who have the competence in

managing the School Transformation Program. The three schools have received intervention from the central and regional governments in the form of Performance School Operational Assistance (*BOSKIN*), which is expected to increase student literacy and numeracy achievements from the previous year; however, the results of the analysis of the 2023, 2024, and 2025 education report cards show differences between STP and Non-STP schools as seen in Figure 1 below.

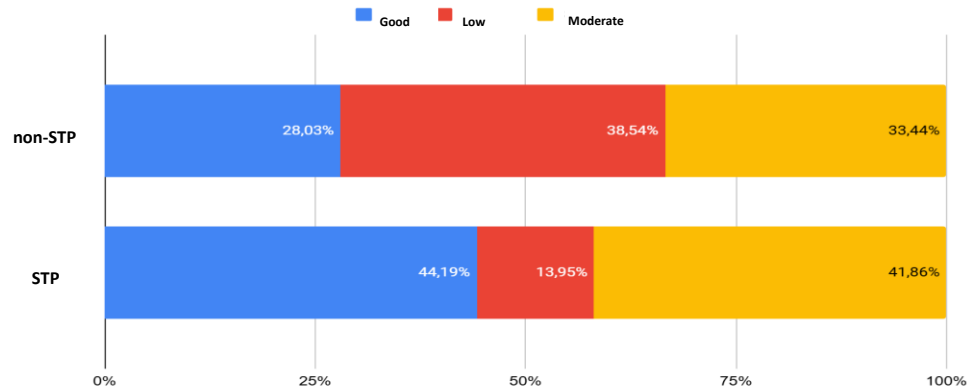


Figure 1. Comparison of Literacy and Numeracy Achievement in STP and Non-STP Schools (Source: West Nusa Tenggara Province Education Quality Assurance Center 2025)

The figure above compares literacy outcomes between schools participating in the School Transformation Program (STP) and those not participating (Non-STP) among senior high school students in West Nusa Tenggara Province. The data is categorized into three achievement levels: Good, Average, and Poor, which are displayed in different colors.

In STP schools, the proportion of schools with good achievement was 44.19%, higher than in non-STP schools, which had only 28.03%. Meanwhile, the percentage of Students in STP schools who were Poor (13.95%) was lower than in non-STP schools (38.54%). The Moderate category was recorded at 41.86% in STP schools and 33.44% in non-STP schools. This indicates that STP schools have a higher proportion of students with literacy achievement and a lower percentage of students with Low achievement. This reflects the effectiveness of the STP program in improving literacy competency.

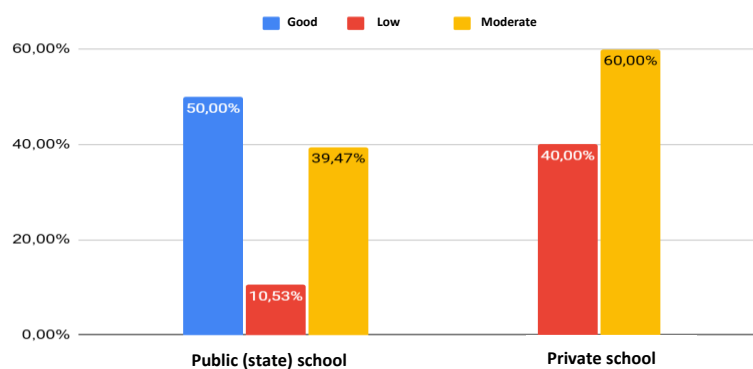


Figure 2. Comparison Between State and Private Schools (Source: West Nusa Tenggara Province Education Quality Assurance Center 2025)

The comparison of literacy achievement between public and private high schools participating in the School Mover program shows that public schools achieved 50% in the Good category, 39.47% in the Moderate category, and 10.53% in the Poor category. Meanwhile, private schools achieved a good result of 0%, a moderate result of 60%, and a poor result of 40%. These results indicate that public schools have a higher proportion of students achieving good results than private schools. Conversely, private schools have a higher percentage of Poor and Moderate achievements. This

difference indicates a disparity in the quality of program implementation between public and private schools. The literacy and numeracy achievements of students at the Senior High School (SMA) level in 2023, 2024, and 2025 can be seen in Figure 3 below:

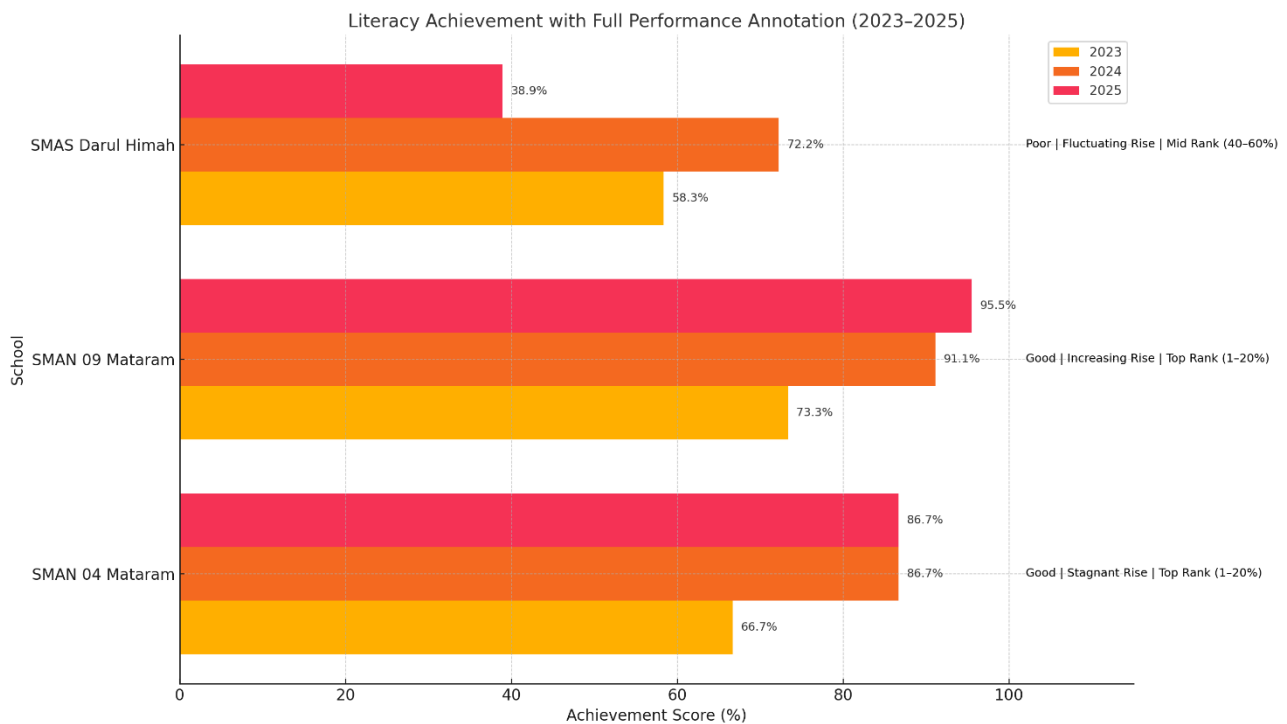


Figure 3. Literacy Achievements in 2023, 2024, and 2025

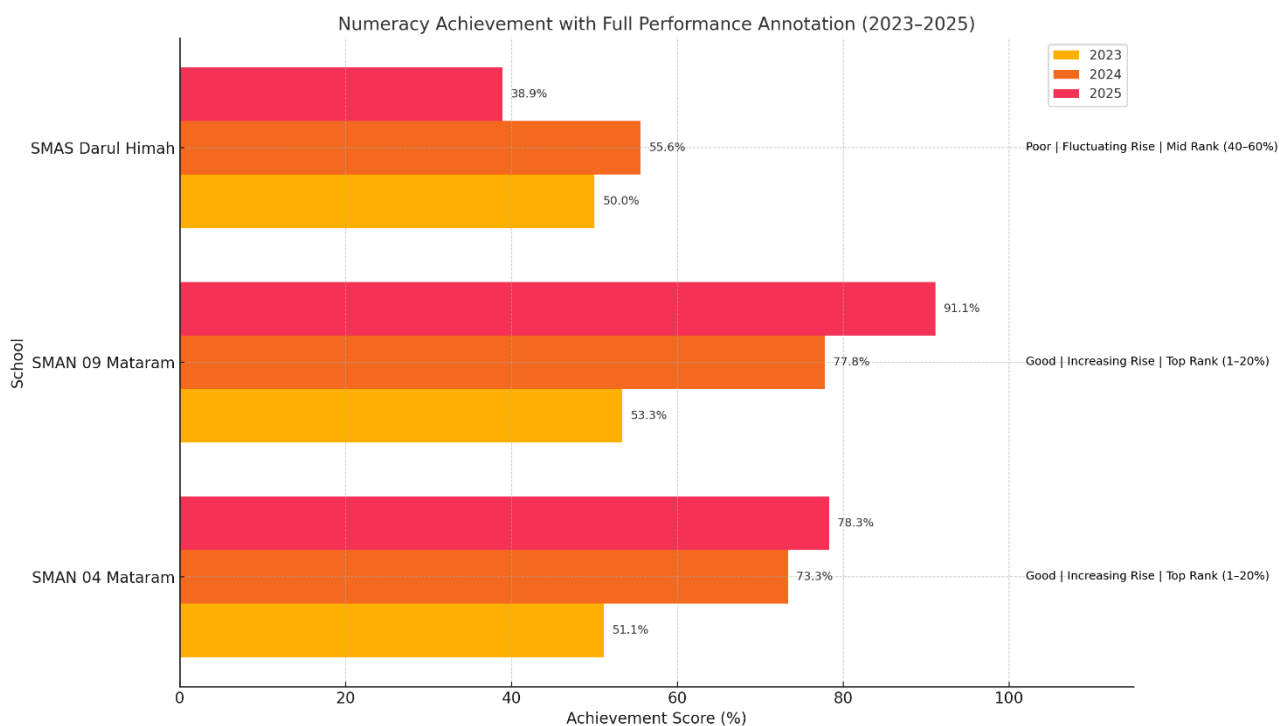


Figure 4. Numbering Access for 2023, 2024, and 2025

The graph above shows that not all three schools implementing STP during the two-year intervention period experienced an increase in literacy and numeracy scores. As shown in the graph above, SMA Darul Hikmah experienced a decline in literacy and numeracy scores, whereas SMAN 4 showed no increase. In contrast, SMAN 9 Kota Mataram saw an improvement in literacy and

numeracy scores. Based on observations and interviews with the principal, SMAN 9 has an instructional leadership strategy in place to help its subordinates shift their mindset from routine tasks to obligations that must be carried out, as all have been funded by the government, not a small amount. This illustrates that instructional leaders play a crucial role in improving literacy and numeracy scores. This agrees with two other principals who said that to improve literacy and numeracy scores, it must be based on data-based planning analysis (PDB). There is an urgent need to implement programs and make targeted purchases to improve teaching standards in their educational units (Budi Teguh Harianto, 2023b), as referenced in the education report, which serves as a basis for the School Activity Budget Plan (SABP) implemented annually.

5. Discussion

5.1. Implementation of Education Reports in the Context of Literacy and Numeracy

In the context of reading and math, educational report cards are essential for tracking, assessing, and improving students' proficiency in these areas. Educational report cards are valuable tools for tracking children's literacy development in speaking, writing, and reading. Teachers can monitor their students' literacy development over time, pinpoint areas of weakness, and develop effective interventions to help them become more proficient readers using well-documented data from report cards. Meanwhile, the use of educational report cards for numeracy enables teachers to systematically assess students' arithmetic skills. Teachers can identify trends in their students' strengths and weaknesses in understanding mathematical concepts by examining the numeracy data on report cards. With accurate data from educational report cards, teachers can create curricula tailored to each student's individual needs in improving their numeracy skills.

Furthermore, increased parental and family involvement can be facilitated through the use of school report cards in reading and numeracy. Through educational report cards, parents can be more involved in their children's reading and numeracy development at home by providing structured and easy-to-understand information. Working together, families and schools can ensure that reading and numeracy instruction is embedded in children's daily lives and takes place in the classroom. Consequently, the use of educational report cards in the context of literacy and numeracy serves not only as an assessment tool but also as a way to increase community involvement in supporting comprehensive student learning. Numeracy literacy also encompasses the ability to interpret quantitative information found around us. Furthermore, literacy is also defined as an individual's ability to process and comprehend information when reading or writing. In general, literacy is a person's ability to process and understand information when reading and writing, including in the Province of West Nusa Tenggara (Mustari, 2023).

In this discussion, the researcher analyzed the education report cards of 32 public and private senior high schools (SMA) in Mataram City, three of which have been designated to implement the School Transformation Program (STP). To realize the profile of Pancasila students, the School Transformation Program seeks to encourage educational units to transform in order to improve student learning outcomes holistically, across both cognitive and non-cognitive components (character). Meanwhile, the School Transformation Program aims to achieve the following objectives. Improving abilities and traits aligned with the profile of Pancasila students must be prioritized. Second, ensuring the equitable distribution of high-quality education through programs designed to improve the capabilities of school principals, who can guide educational units towards achieving high-quality learning. Third, strengthening the educational ecosystem by emphasizing quality improvement.

The implementation of the Pancasila student profile necessitates establishing a collaborative environment among education stakeholders, including local governments, schools, and the government (Heriyanto, 2023; Ministry of Education and Culture of the Republic of Indonesia, 2022).

The target of the 3rd stage of the first year, where the school has received intervention from the Ministry of Education, Culture, Research, and Technology and the local government in 2023, is five (5), namely: 1. Consultative and asymmetric assistance, 2. Strengthening Human Resources in Schools 3. Learning with a new paradigm 4. Data-based planning 5. School digitalization. These five interrelated interventions are expected to accelerate improvements in the quality of public and private schools by forming a Pancasila student profile and increasing students' literacy and numeracy achievements at all levels of educational units.

5.2. The Positive Impact of Education Reports on Literacy and Numeracy

The results demonstrating the positive impact of implementing educational report cards in literacy and numeracy provide strong evidence of their effectiveness in improving students' academic achievement. Numerous studies have demonstrated that the use of comprehensive and structured educational report cards can have a significant impact on the development of students' literacy and numeracy skills. Clearly presented and structured data from educational report cards helps educators identify individual student needs and design appropriate intervention programs. Case studies of three high schools that implemented educational report cards focusing on literacy and numeracy have demonstrated significant improvements in student achievement. By regularly monitoring the data in the educational report cards, educators can track students' progress over time, identify performance trends, and take appropriate action to improve their literacy and numeracy skills. These results demonstrate the importance of using well-documented data to guide targeted and effective learning.

Furthermore, findings from a program evaluation of the implementation of educational report cards in literacy and numeracy also indicate increased student motivation and engagement in the learning process. By presenting information about their progress and achievements in a structured manner, students feel more motivated to improve their academic performance. This positive impact is evident not only in improved exam results but also in the development of critical thinking, problem-solving, and communication skills, which are integrated into students' literacy and numeracy. These results and findings provide evidence that the effective implementation of educational report cards can significantly improve student literacy and numeracy and enhance the overall quality of education. To increase access to literacy and numeracy through educational reports, several recommendations can be considered. First, it is essential for instructional leadership to achieve the goal of the type of leadership in education considered (Kurniawan, 2022) by analyzing a more holistic education report that includes not only academic value but also the development of students' literacy and numeracy skills in detail.

Finally, the implementation of information and communication technology (ICT) can also be a valuable recommendation for enhancing literacy and numeracy outcomes through educational report cards. Information and communication technology (ICT), which underpins this educational report card platform, is a digital technology that integrates educational data processing and communication methods to collect, process, store, retrieve, and distribute audio, image, text, and numeric information (Ebisine, 2015).

5.3. Effective Instructional Leadership Strategies

Implementing effective instructional leadership strategies and steps to improve literacy and numeracy outcomes through educational report cards can involve several approaches. First, it is important to map student needs using data from educational report cards (Craig, 2011; Supovitz & Klein, 2003). By deeply understanding students' strengths and weaknesses in literacy and numeracy, principals collaborate with teachers to design learning strategies tailored to individual student needs (Sari et al., 2023; Li et al., 2022; De Bruin et al., 2022). Furthermore, educators need to develop specific and measurable learning objectives to improve students' literacy and numeracy skills. These objectives must be objectively measurable so that student progress can be clearly monitored.

Furthermore, educators should be involved in discussions of educational report card results to formulate appropriate intervention strategies to improve students' literacy and numeracy skills.

Collaboration between principals, educators, and other educational staff is also key to effective implementation (Meyer et al., 2023). Through the exchange of ideas, knowledge, and experiences, various parties can make valuable contributions to the design of holistic and sustainable learning programs. Furthermore, educators need to ensure effective communication with parents and students to strengthen their involvement in efforts to improve literacy and numeracy. Finally, principals should regularly evaluate the effectiveness of implemented strategies. By monitoring and evaluating the impact of implementation steps, educators can identify successes, obstacles, and necessary improvements to continuously improve the quality of literacy and numeracy learning through educational report cards. By following targeted and measurable strategies and implementation steps, educators can achieve their goal of improving students' literacy and numeracy skills more effectively and sustainably.

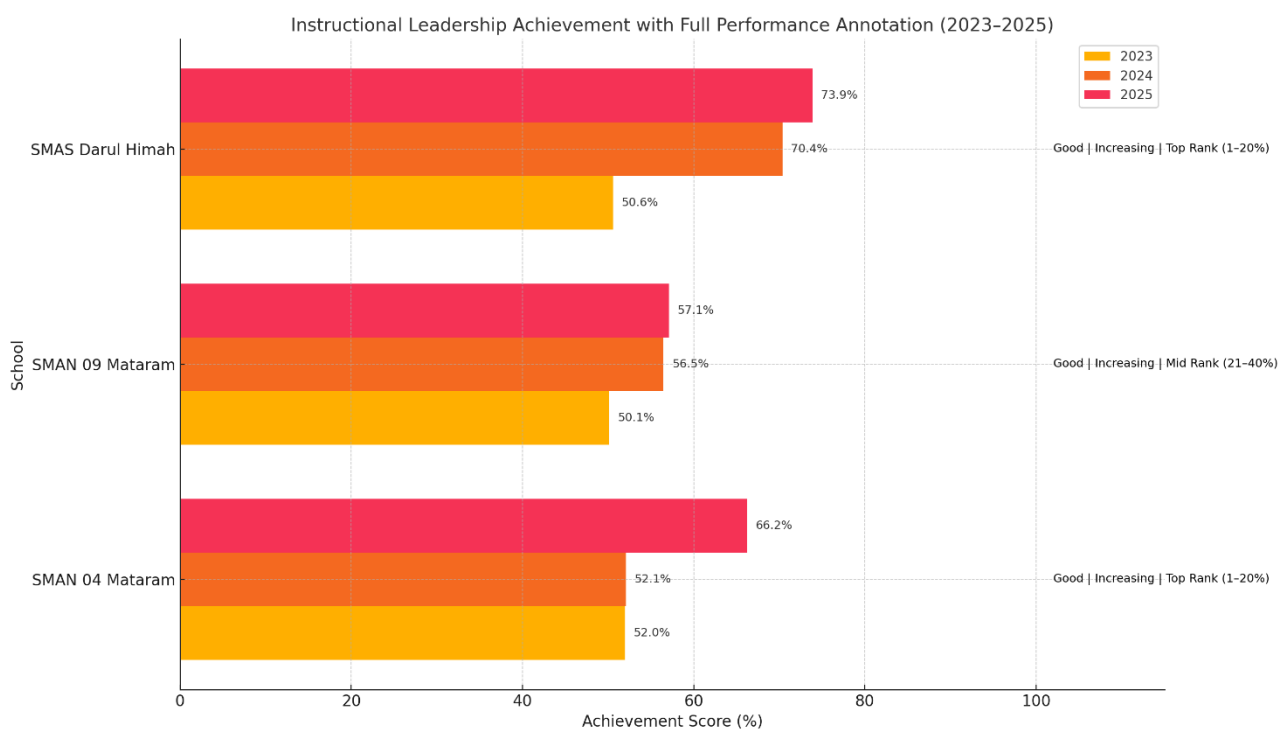


Figure 5. Instructional Leadership Achievements in 2023, 2024, and 2025

Based on Figure 5 above, the instructional leadership of SMAN 4, SMAN 9 and SMA Darul Hikmah has a visionary leadership style by consistently referring to the vision and mission of the educational unit, including communicating the vision and mission to the educational unit community so that learning planning, practice and assessment are oriented towards improving student learning outcomes through program support, incentive systems or adequate resources which have an impact on the culture of teachers reflecting and improving learning.

Providing teachers with support to reflect on the learning process will enhance student learning in the classroom, ultimately improving students' literacy skills. The recommendations in the three schools' education reports are:

1. Inspiration 1: Instructional leadership of educational units and educators increases competence in providing support for reflecting on students' literacy learning processes through training, discussions in learning communities, independent learning utilizing various learning resources, and other activities that support increased competence.

2. Inspiration 2: Instructional Leadership of educational units and educators plan and implement the provision of support to reflect on the literacy learning process of students in intracurricular, cocurricular, and/or extracurricular activities.

3. Inspiration 3: Instructional Leadership of educational units encourages improvement and support for educator reflection through programs and policies in educational units, both those requiring a budget and those not requiring a budget, to support students' literacy skills.

The average value related to the level of instructional leadership in educational units that supports the improvement of learning quality, as determined by a survey of the learning environment. Indicators include the vision and mission of educational units, curriculum management, and support for teacher reflection activities (Cuttance, 1990; Muda, 2019; Manea, 2021). Improving the principal's ability to develop and manage the curriculum aims to enhance the processes and outcomes of student learning, thereby supporting students' character development.

Inspiration for improving activities is a composite score based on the head of the educational unit and teachers, related to programs, incentive systems, and resources that support teacher reflection and learning improvement. The inspiration for improving activities in educational unit curriculum management comes from the head of the educational unit and teachers, who aim to enhance their abilities and to develop and manage the curriculum to support character education. This can be done through training, discussions in learning communities, independent learning with various learning resources, and other activities that support the improvement of teacher competencies. Support for teacher reflection is a composite score, based on the head of the educational unit and education staff, related to programs, incentive systems, and resources that support teacher reflection and learning improvement.

6. Conclusion

The role of instructional leadership in literacy and numeracy achievement is inseparable from stakeholder involvement in analyzing educational report cards, which highlight recommendations for collaboration among educators, parents, students, and other stakeholders to support educational success. Findings indicate that strong stakeholder involvement has a positive impact on improving student literacy and numeracy achievement. Close collaboration between educators and parents can create a consistent learning environment at school and at home, providing holistic support for students' skill development beyond the classroom. The implications of these findings underscore the importance of leaders in maintaining and enhancing stakeholder engagement in the educational report card program. Educators should continue to encourage active parental participation in understanding and responding to the information in the educational report card, thereby fostering strong synergy between schools and families to support student learning. Meanwhile, involving students in monitoring and evaluating their own progress is also key to increasing their motivation and personal responsibility for their learning.

By strengthening stakeholder involvement in the education report card program, it is hoped to create an inclusive, progressive, and sustainable educational environment. Educators and related parties must continue to develop strategies that encourage effective collaboration between all parties involved, so that the goal of improving student literacy and numeracy can be optimally achieved. By understanding and implementing these findings, the education report card program can become more effective in supporting the development of students' literacy and numeracy skills, thereby creating a solid educational foundation for their future.

7. Suggestion

Properly formulating key points can provide a strong foundation for promoting improvements in literacy and numeracy through educational report cards. First, it's crucial to emphasize the

importance of developing comprehensive and structured educational report cards. Educational report cards should include information that goes beyond academic grades, but also details the development of students' literacy and numeracy skills. This enables educators to gain a comprehensive understanding of students' abilities and design targeted interventions. Next, it's important to formulate key points that emphasize the need for ongoing training and education for educators to analyze educational report card data and use that information to improve students' literacy and numeracy skills. This training can help educators recognize patterns of relationships between data in educational report cards and student learning outcomes, enabling them to design more effective interventions. Finally, it's crucial to formulate key points that emphasize the use of information and communication technology (ICT) or data-driven planning (DBD) to present educational report card data more interactively and understandably (Supriyanto, 2015). By using digital platforms or specialized applications, information in educational reports can be presented more engagingly and help monitor and improve students' literacy and numeracy skills more effectively.

Overall, although Malaysia has made recent progress, there is still room for development, particularly in the areas of arithmetic and reading skills. Students can perform better in the future by focusing on developing more engaging, participatory teaching strategies. Compare the PISA literacy and numeracy scores of Indonesian and Malaysian students.

Declarations

Author Contributions. Mohamad Mustari: contributed to the conceptualization, research design, and overall supervision of the study. Mansoor Abdul Hamid assisted in developing the methodology and interpreting the data. Aliefman Hakim: contributed to data collection and analysis. Joni Rohmat assisted with the literature review and validation. Kosim: contributed to statistical analysis and visualization. Satututik Rahayu: interpretation of findings. Nurul Aulia: contributed to editing, data collecting, and formatting.

Conflicts of Interest. The authors declare no conflict of interest.

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Ethical Approval. The research has obtained ethical approval in accordance with applicable procedures. Voluntary participation with informed consent obtained from all participants. Confidentiality and anonymity of all participants are ensured. Data collected will be used solely for academic and scientific purposes.

Data Availability Statement. The data supporting the findings of this study are available from the corresponding author. The raw data cannot be shared publicly.

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