Ambarsa : Jurnal Pendidikan Islam
Vol. 06, No. 01 (2026), p. 123-143
https://ejournal.stitta.ac.id/index.php/ambarsa

Aligning Education Policies Using Data to Improve Literacy, Numeracy, and Learning Outcomes

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DOI: https://doi.org/10.59106/abs.v6i1.447

Abstract

This study aims to evaluate the effectiveness of central government policies in shaping educational outcomes, particularly as reflected in the results of the 2024-2025 Education Report Card. By focusing on key indicators such as literacy, numeracy, and overall learning quality, this research seeks to understand not only improvements in student performance but also the broader implications of policy implementation across different educational levels. Using a qualitative approach, the study analyzes secondary data to identify trends and patterns that reveal both the successes and shortcomings of current educational strategies. The findings indicate notable improvements in primary school numeracy, which increased by 7.95 points, and literacy, which rose by 1.65 points. However, the quality of learning, as measured by classroom practices and pedagogical effectiveness, experienced a decline of 2.23 points. At the junior high school level, a similar trend emerges: numeracy scores improved by 2.77 points, while literacy slightly decreased by 0.18 points, and learning quality dropped by 0.75 points. These results suggest that while students are achieving higher scores in measurable areas such as literacy and numeracy, these gains are not translating into improved educational experiences, likely due to the prevalence of "teaching to the test" strategies. Consequently, the region continues to rank among the lowest nationally in terms of holistic educational quality. Future research should explore more structured clinical mentoring models and emphasize continuous monitoring of regional education policies to ensure sustainable and meaningful improvements in educational quality.

Article History
Submitted: 21-01-2026
Reviewed: 05-02-2026
Accepted: 22-02-2026
Published: 26-02-2026

Keywords
Education Policies, Literacy, Numeracy and Learning Outcomes

How to Cite :
Sikki, N. ., Anggraini, N. ., Hidayatullah, I. ., Sembiring, A. R. A. ., Hermanto, B. ., & Ramadanty, I. R. . Aligning Education Policies Using Data to Improve Literacy, Numeracy, and Learning Outcomes. *Ambarsa : Jurnal Pendidikan Islam*. Retrieved from https://ejournal.stitta.ac.id/index.php/ambarsa/article/view/447

Introduction

In 2022, the Ministry of Education, Culture, Research, and Technology launched the Education Report platform, which aims to provide local governments with a diagnostic tool based on data to identify problems, reflect on their root causes, and improve the overall quality of education as a foundation for determining subsequent program interventions(Rathi et al., 2023; Suhayib & Ansyari, 2023). However, the data presented in the Education Report for Gunung Mas Regency reveals a significant anomaly in the educational quality achievements for the period 2024–2025. The data shows a 7.95% improvement in numeracy competence at the elementary school level, yet this notable increase is contrasted by a 2.23% decline in the quality of learning at the same level. This discrepancy directly impacts the accuracy of the policies to be implemented in the future.

The complexity of educational governance in this Regency has become increasingly pronounced amid the national leadership transition following the change of the Minister of Education, accompanied by adjustments to several regulatory frameworks governing educational management in Indonesia (Wakhidah & Erman, 2022). This transition period has generated a broader national discourse regarding the future direction of Indonesian education, making a pivotal year for policy realignment. Although the Education Report Card remains an official reference for policy formulation, the national education agenda has gradually shifted its emphasis from purely quantitative performance indicators toward improving the quality of the learning process itself(Akmal & Pritchett, 2021).

However, this policy transformation has significant implications for regional education systems, particularly in terms of fiscal capacity and institutional readiness. The increasing demand for professional development programs, pedagogical transformation, and curriculum adaptation requires additional budget allocations, while many local governments face fiscal limitations in translating national reforms into effective classroom practices(Johnson & Parrado, 2021; Singal et al., 2020). As a consequence, a "wait and see" attitude has emerged among educators, who often postpone instructional innovation until clearer policy guidance and resource support become available. This situation is further compounded by empirical evidence from the Education Report data indicating that at the junior secondary level, literacy competence has stagnated with a slight decline of −0.18 points, accompanied by a decrease in learning quality of −0.75 points. Such patterns suggest that previous educational interventions may have been fragmented and primarily oriented toward improving measurable indicators rather than strengthening the structural capacity of teachers and schools to deliver meaningful learning experiences.

Academic studies suggest that anomalies in assessment outcomes, such as those observed in the Education Report Card, may arise from interventions or special treatments given to students during the National Assessment process(Ristiana, 2023). This, in turn, leads to a failure among educators to deeply

impart foundational concepts to students, preventing them from truly understanding the essence of what is being learned. Such phenomena are not isolated to a particular region but may be occurring across various districts and municipalities. This represents a significant challenge in the national education landscape. As pointed out in the research by (Abella et al., 2024), when the Education Report Card is the sole instrument of accountability, there is a growing tendency for teachers to adopt "teaching to the test" practices to avoid negative results, such as low scores or "red report cards" at the regional level. This systemic pressure, extending from the bureaucracy to the classroom, exacerbates the situation. The practice reveals that cognitive improvement is often temporary and lacks a deep, sustainable impact, as it is not accompanied by substantial pedagogical transformation. This finding is reinforced by the analysis of (Sthapak, 2025), who discovered that the Education Report Card platform has created a "psychological burden" and "administrative burden" for teachers and school principals, particularly in regions facing geographical challenges, limited facilities, and restricted access to training.

The research gap in the field of education policy, particularly in the context of data-driven decision-making, lies in the insufficient exploration of how the synchronization of educational policies between national and local governments can be effectively achieved using platforms such as the Education Report Card. Despite the growing reliance on such data to inform policy, there remains a significant gap in understanding how discrepancies in literacy, numeracy, and learning quality outcomes impact educational reforms at the local level. Existing studies have highlighted the rise of "teaching to the test" practices and the psychological and administrative burdens on educators, but few have examined the broader implications of these practices on long-term educational quality and the true competencies of students.

This research aims to address this gap by systematically analyzing the alignment (or lack thereof) between data-driven policy formulation and actual educational outcomes, with a specific focus on literacy, numeracy, and learning quality. By doing so, this study seeks to demonstrate how policy synchronization, informed by accurate and holistic data, can enhance the effectiveness of educational reforms, ensuring that improvements in student performance are not just statistical but reflect meaningful, sustainable gains in educational quality. This analysis is critical in guiding future interventions, especially in the region, where infrastructural and resource constraints may hinder the full realization of national educational goals.

Methods

This study employs a qualitative case study research design to thoroughly analyze the root causes behind the anomalies in the Education Report Card data of the Regency. The choice of a qualitative approach is based o This study employs a qualitative case study research design to thoroughly analyze the root causes behind the anomalies in the Education Report Card data. The choice of a qualitative approach is based on the researcher's need to deeply understand and

comprehensively explore phenomena that cannot be solely explained through numerical data (Matos et al., 2023). The Education Report Card is the only official government data source that reflects the quality of schools recognized nationally. This study will focus on the achievements of key indicators, comparing improvements or declines and conducting a critical interpretation by contrasting outcome indicators with Literacy/Numeracy with process indicators with Learning Quality to draw conclusions and policy recommendations that are relevant, field-based, and accountable(Lê & Schmid, 2022).

The research design is a qualitative case study, selected due to its suitability for exploring in-depth, context-specific issues(Cohen et al., 2007). A case study approach allows for the examination of anomalies in the Education Report Card within the context, enabling the researcher to capture the complexity and nuances of the local educational challenges and the relationship between data-driven policies and educational outcomes.
The research will be conducted at the regency, chosen for its unique geographical characteristics, including a large area of 10,804 km^2, and its socio-economic challenges, such as limited access to infrastructure and resources. These factors provide a pertinent setting to explore the impacts of national educational policies on local outcomes and to understand the potential disconnect between policy intentions and field realities. Data will be collected using multiple techniques, including document analysis of the Education Report Card data, interviews with local educators, school principals, and government officials, and focus group discussions with teachers. This multi-method approach ensures the triangulation of data and enhances the depth of the findings.

Data analysis will follow the interactive model proposed by (Smith et al., 2009), consisting of three stages: Firstly, Data Condensation i.e The first step involves the selection, simplification, and transformation of raw data from the Education Report Card. Key indicators, such as the significant increase in numeracy at the elementary level (+7.95 points) and the decline in learning quality (−2.23 points), will be identified. This process aims to focus the data for a systematic investigation into the possibility of "teaching to the test" practices. Secondly, Data Display i.e In this stage, the condensed information will be presented systematically in tables along with descriptive narratives. This will map the trends in educational outcomes visually, allowing for a clearer understanding of the quality gaps between elementary and secondary education in the region. Thirdly, Data Verification i.e Finally, the researcher will draw conclusions to explain the correlation between regional educational policies and the recorded outcomes. This stage aims to logically reason the causes of data discrepancies and offer explanations for the educational phenomena occurring. Fourthly, Data Validity, i.e to ensure the validity of the data, the study will employ triangulation by cross-referencing data from multiple sources, including the Education Report Card, interviews, and focus groups. Member checking will also be used, where participants will review the findings to confirm accuracy and relevance. Additionally, peer debriefing and expert validation will be conducted to enhance the credibility of the study's interpretations and conclusions.

Finding and Discussion

Finding

The data findings in this study pertain to the discrepancies between cognitive learning outcomes with literacy and numeracy and the quality of the educational process, as reflected in the 2024-2025 Education Report Card. Specifically, the data reveals significant gaps between students' academic achievements, as measured by their literacy and numeracy scores, and the quality of learning processes within schools. These discrepancies indicate that while there have been improvements in some cognitive outcomes, such as numeracy at the elementary school level, the quality of education—measured by learning quality indicators—has not kept pace with these achievements, and in some cases, has even declined.

In interviews with local teachers, several expressed concerns regarding the discrepancy between literacy and numeracy improvements and the decline in learning quality. One elementary school teacher remarked, “While students’ numeracy scores have improved over the past year, we’ve noticed that their ability to understand deeper concepts has not. We focus so much on preparing them for tests that we sometimes overlook the depth of their learning.” This reflects a broader concern that "teaching to the test" practices, aimed at improving specific scores, might be undermining the development of critical thinking and long-term academic skills.

The principal of a local secondary school highlighted a similar issue, stating, “Although we are seeing improvements in test scores, especially in numeracy, we struggle to ensure that these results reflect meaningful learning. The pressure to meet targets often leads to a focus on measurable outcomes rather than fostering a truly engaging and comprehensive learning experience for students.” This view reinforces the notion that an overemphasis on numerical improvements can sometimes detract from essential pedagogical transformations that foster a holistic understanding of academic subjects.

During observations, it became evident that the teaching methods employed in both elementary and secondary schools were largely centered on preparing students for standardized assessments, especially in numeracy. This was particularly visible in classrooms where the curriculum seemed to prioritize practice tests and formulaic exercises. Despite some progress in numeracy scores, there was little evidence of instructional strategies designed to foster conceptual understanding or critical thinking skills. The decline in learning quality scores, particularly in elementary schools, suggests that while students may be able to perform well on tests, they are not fully grasping the underlying concepts that would support sustained academic growth.

The analysis of the Education Report Card data for the Regency reveals a disconnect between improvements in cognitive outcomes (literacy and numeracy) and the decline in learning quality indicators. Specifically, numeracy scores at the

elementary level saw a significant increase of 7.95 points, yet the quality of learning decreased by 2.23 points. A similar pattern was observed at the secondary school level, where numeracy scores improved by 2.77 points, but literacy scores stagnated, and the quality of learning declined by 0.75 points. These findings suggest that, although cognitive skills are improving, the quality of the educational process is not evolving at the same pace.

The data pattern shows a clear trend where improvements in numeracy scores, especially at the elementary level, are not matched by improvements in the quality of learning, as reflected in the decreasing quality of education scores. This inconsistency suggests that while efforts to boost numeracy outcomes have been somewhat successful, they may have come at the cost of a more comprehensive approach to teaching and learning. Similarly, the stagnation in literacy and the slight decline in learning quality at the secondary level indicate that the focus on test preparation might be limiting deeper engagement with the content. The overall data paints a picture of an education system that has made progress in certain areas but is facing challenges in ensuring that this progress is reflective of a holistic and meaningful learning experience for students.

Table 1. the domain and data Literacy and Numeracy

Domain	Data	Indicator
Elementary School	Literacy: 51.00% (2024), 52.65% (2025)	Improvement of +1.65 points
	Numeracy: 40.86% (2024), 48.81% (2025)	Improvement of +7.95 points
	Learning Quality: 61.04% (2024), 58.81% (2025)	Decline of -2.23 points
Secondary School	Literacy: 62.71% (2024), 62.53% (2025)	Decline of -0.18 points
	Numeracy: 56.84% (2024), 59.61% (2025)	Improvement of +2.77 points
	Learning Quality: 63.25% (2024), 62.50% (2025)	Decline of -0.75 points

Numeracy Anomalies and the Quality of Learning

This study reveals a significant anomaly in the educational outcomes at the elementary school level, where there is a remarkable improvement in numeracy scores (+7.95 points) but, at the same time, a noticeable decline in the quality of learning (-2.23 points). This discrepancy raises serious concerns, particularly because, from a pedagogical perspective, improvements in cognitive learning outcomes should be a direct consequence of better teaching processes and effective classroom interactions(Karr et al., 2022). In an ideal educational environment, when students' cognitive abilities improve, it should reflect the quality of teaching and the depth of content being delivered. This is in line with the government's policy on deep learning, which emphasizes that cognitive development stems from meaningful interactions between teachers and students

and from the quality and depth of the learning material presented during the teaching process(Grotlüschen et al., 2020).

However, the findings from the regency suggest that this alignment between improved cognitive outcomes and enhanced learning quality has not been achieved. The substantial increase in numeracy skills seems to have been achieved through technical interventions that are repetitive and monotonous in nature, such as providing students with repetitive practice modules aimed at short-term test preparation(Burke, 2026). These interventions, while boosting numeracy scores, do not appear to contribute to the long-term educational development of the students. This approach, which focuses solely on improving specific outcomes, neglects the broader goal of fostering critical thinking, problem-solving, and conceptual understanding—key competencies that are essential for students' overall cognitive growth (Ewulley et al., 2023). This scenario highlights a significant flaw in the current educational approach, where the immediate gains in test scores come at the cost of a deeper, more meaningful educational experience.

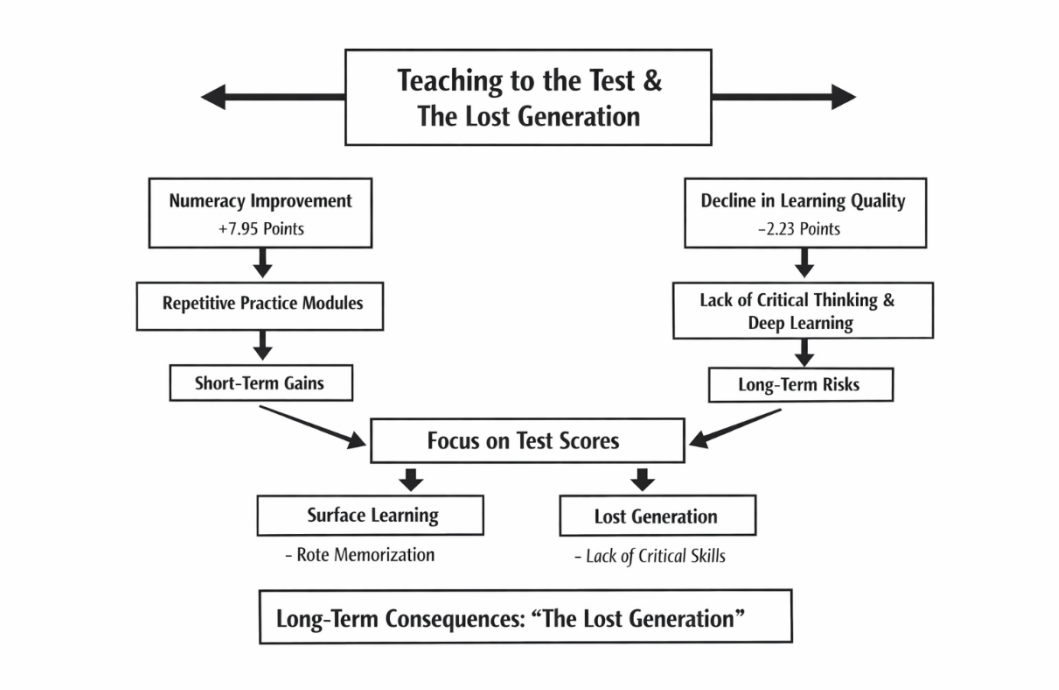
This phenomenon strengthens the suspicion of the existence of "Teaching to the Test" practices, where educators and educational institutions focus on meeting predefined targets set by national assessments rather than fostering true learning experiences. In this context, teachers are under immense pressure to ensure that students perform well on tests, leading them to prioritize test preparation over teaching for understanding(Dorris et al., 2024). As a result, the teaching methods become increasingly formulaic and centered on repetition rather than encouraging students to engage with the material in a deeper, more critical manner. The short-term focus on improving test scores, particularly in numeracy, ends up bypassing the essential pedagogical transformations that could lead to long-term academic development.

And this focus on immediate outcomes creates a harmful cycle where the educational process is reduced to a mere numbers game. The Education Report Card becomes the yardstick by which educational success is measured, and schools, in an effort to maintain positive ratings, prioritize achieving high scores at the expense of fostering critical cognitive skills(Afoakwah & Koomson, 2021). This approach does not only undermine the broader goals of education but also affects the students' ability to think critically and solve problems beyond the confines of standardized tests. As students are trained to memorize and regurgitate information rather than engage in deep, reflective learning, they miss out on the ability to develop essential cognitive skills, such as analytical thinking, creativity, and problem-solving(Chang, 2023).

The long-term consequences of such an approach could be profound, potentially leading to the creation of what has been termed a "lost generation"—a cohort of students who excel in test-based assessments but lack the skills needed to succeed in a rapidly changing world(Durongkaveroj, 2023). The risk of students being trapped in a system that prioritizes immediate performance over long-term development is clear. The emphasis on rote learning, aimed solely at boosting test scores, not only fails to nurture critical thinking but also hampers

students' ability to apply their knowledge in real-world situations. This could ultimately result in a generation that is well-prepared to pass tests but ill-equipped to navigate the complexities of life and work in the modern world, where adaptability, innovation, and problem-solving are essential(Barnes & Cross, 2021). Therefore, it is crucial to reassess current educational practices and policies to ensure that they align more closely with the broader educational goals of fostering deep, reflective learning that equips students with the skills needed for lifelong success.

Figure 1. Teaching to Test and The Lost Generation



At the secondary school level, the trends in the Education Report Card data reveal concerning stagnation in literacy and learning quality. The literacy scores have slightly declined by 0.18 points, while the quality of learning has decreased by 0.75 points. These shifts signal a significant challenge in maintaining the quality of education during this transitional phase of middle school education(Kim, 2022). This stagnation in literacy and quality of learning highlights the persistent difficulties that teachers and educational leaders face when trying to improve the educational outcomes of their students(Forgasz et al., 2024). Despite some progress at the elementary school level, the transition to SMP reveals that efforts to enhance literacy and numeracy are not being effectively sustained at higher levels of education. The stagnation observed at SMP serves as a stark reminder of the broader systemic issues in the educational process, especially in the context of adapting to new curricular changes.

The decline in learning quality at both the elementary and secondary levels of education underscores the ongoing inadequacies in the teacher training programs. The existing professional development initiatives have not yet succeeded in fully embracing the paradigm shift introduced by the Independent Curriculum, a key element of the national educational reform. According to (Rashid, 2020), the main barrier to progress in regions ranked lower nationally is

often the lack of preparedness among educators. In many cases, teachers remain overwhelmed by administrative tasks rather than focusing on the innovative pedagogical practices that would directly benefit students. The limited success in adapting to the *curriculum* reflects broader systemic weaknesses that prevent meaningful improvements in the quality of education at the secondary level.

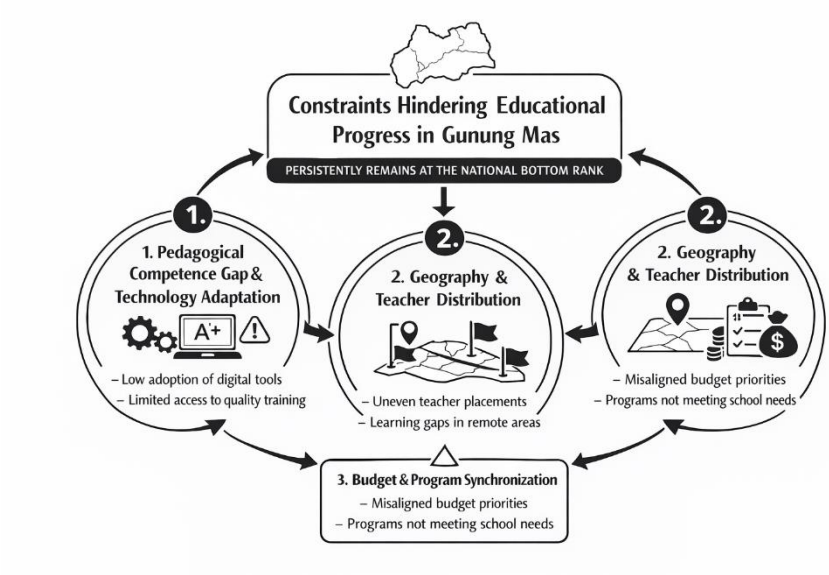
And the stagnation in literacy at SMP indicates a deeper issue: the lack of continuity in literacy interventions between elementary and secondary education(Fernández-Gutiérrez et al., 2020). While literacy programs may have been introduced at the elementary level, they appear to lose momentum as students transition to higher education levels. This gap in continuity is concerning, as it suggests that students may not be carrying forward the critical thinking and literacy skills they developed earlier. Given that literacy is foundational to academic success across subjects, this stagnation raises alarms about the long-term academic trajectory of students(Pritchett & Sandefur, 2020). Without a more integrated and seamless approach to literacy education, students risk falling behind in critical thinking, which is essential for navigating increasingly complex subject matter as they progress through their schooling.

This situation further illustrates the importance of adopting a more holistic, cross-grade literacy strategy. The education system must implement literacy initiatives that extend beyond the elementary level and bridge the gap to secondary education. The current trend of disconnected literacy efforts between the two educational stages fails to recognize the developmental continuum that students experience as they move through different educational phases. To ensure that critical thinking skills remain sharp and that students are prepared for the academic challenges at higher levels, a comprehensive, cross-grade strategy is essential. Such a strategy would involve continuous support for students' literacy development, ensuring that it evolves with their academic growth and complexity of learning materials.

The stagnation of literacy and the decline in learning quality also raise questions about the broader structural issues within the region's educational system. Teachers in lower-ranking districts are often under immense pressure to meet administrative requirements, which detracts from their ability to innovate and engage in quality instructional practices(Kaffenberger & Pritchett, 2021). In the context, where resources are limited and access to professional development is constrained, teachers are often left to manage their classrooms with minimal external support. The focus remains on administrative tasks and meeting national targets rather than fostering a dynamic, interactive classroom environment that encourages deep learning. These challenges need to be addressed through systemic reforms that provide teachers with the training, resources, and time they need to implement effective, student-centered learning practices. Only then can the quality of education be sustained and improved in the long term, ensuring that students are well-prepared to succeed in the increasingly complex world of the 21st century.

Analysis of Regional Constraints and Structural Barriers

The persistent lag of the Regency, which remains at the lower national rankings, can be analyzed through three main constraints:



Pedagogical Competence Gap and Technology Adaptation

The issue of pedagogical competence and technology adaptation is a significant barrier to the effective implementation of digital tools in education. The introduction of the Education Report Card, which aims to digitally transform the educational system, has not yet translated into substantial improvements in classroom practices. While the platform provides valuable data for tracking educational progress, it is underutilized by teachers who are not sufficiently prepared to leverage it for enhancing their teaching strategies. According to (Carew et al., 2020), simply introducing technology is not enough; its success hinges on a fundamental shift in educators' mindset. Teachers must see technology as a powerful tool to enrich the learning experience, not as an additional burden that complicates their already demanding jobs.

In the context, the challenge lies in the reluctance of many teachers to embrace technological changes. There is a prevailing mindset that digitalization is merely an administrative requirement or extra workload, rather than a transformative opportunity to improve teaching and learning outcomes(Ansong et al., 2023). This perception is largely due to limited exposure to professional development programs that adequately address the integration of technology into pedagogical practices. As a result, teachers often continue to rely on traditional methods, focusing on “just teaching” to meet basic educational objectives, rather than exploring innovative approaches that could deepen students’ learning. This reluctance to adapt is further exacerbated by the lack of ongoing, accessible training on how to effectively incorporate technology into the classroom.

Additionally, the limited access to quality, sustainable training programs for teachers has hindered the widespread adoption of technology. While some teachers may recognize the potential benefits of technology, the lack of

professional development opportunities means that many are ill-equipped to integrate digital tools into their classrooms effectively. Without proper training, teachers often fail to understand how to use technology in ways that support critical thinking, creativity, and student engagement. This leaves them stuck in traditional teaching methods, which are less likely to foster the deeper learning outcomes needed in today's fast-evolving educational landscape. Consequently, the slow adoption of digital tools and the failure to adapt pedagogically contribute to a cycle of stagnation in educational quality in the region.

Geography and Teacher Distribution

This Regency faces significant challenges due to its geographical characteristics, which deeply affect the distribution of quality teachers. As a regency with remote, mountainous, and hard-to-reach areas, the location of schools plays a crucial role in the quality of education students receive. Schools situated in central urban areas typically have better access to educational resources, including teaching materials, technology, and qualified teachers (Muralidharan & Singh, 2021). In contrast, schools in more remote areas often lack these resources, leading to disparities in educational outcomes. This geographic divide has a direct impact on the quality of learning, as students in remote areas are deprived of the same opportunities as those in more accessible locations. Such inequities contribute to the growing learning gap between urban and rural areas, undermining the principles of equal educational opportunity for all students.

The disparity in teacher distribution is not only a result of geographical factors but also reflects systemic issues within the education system. (Koomson & Afoakwah, 2023), in their study argue that the teacher shortage in remote, underdeveloped, and border regions is a multifaceted problem. It is not simply a matter of insufficient teacher numbers but a deeper issue of misallocation and inequitable distribution. Many of the teachers who are assigned to these areas are not necessarily the most qualified or well-prepared to address the unique challenges that students in remote regions face. This lack of appropriate teacher placement exacerbates the problem, as it leaves students without the high-quality education they deserve.

And teacher placements are often influenced by factors beyond the needs of the educational system. Regional political interests and personal connections tend to play a significant role in determining where teachers are assigned, rather than basing these decisions on the actual demands of schools and student needs(Huntington et al., 2023). This misalignment between teacher distribution and educational requirements creates a mismatch that affects both the teachers' ability to meet the needs of their students and the students' ability to receive a high-quality education. For example, schools in remote areas may receive teachers who are less experienced or less qualified, leading to ineffective teaching practices that fail to support students' learning in meaningful ways.

This issue also highlights the challenge of addressing educational inequity through broad, one-size-fits-all policy measures. While national education reforms may aim to improve education quality across the board, they often fail to

take into account the unique challenges posed by geographic isolation and unequal teacher distribution(Kumar et al., 2021). Consequently, the impact of these reforms is often lessened in remote areas, where teachers face different challenges from those in urban centers. The lack of targeted policies that specifically address the needs of teachers in underserved areas perpetuates the educational inequities between different regions. Addressing these disparities requires not only more teachers in remote areas but also a thoughtful and strategic approach to teacher placement, ensuring that teachers are not only available but are also well-equipped to meet the specific needs of students in these challenging environments.

Budget and Program Synchronization

One of the fundamental challenges in educational system is the disconnect between Data-Driven Planning (PBD) and regional budget allocation, as emphasized by (Cheung et al., 2021). While educational budgets are formally allocated in accordance with national regulations, there is often a significant gap between these financial allocations and their actual impact on improving the quality of education. Specifically, while the Education Report Card provides critical data on student performance and teaching quality, the corresponding budgets do not always target areas that could directly enhance teacher competencies or address the issues highlighted in the report. Instead, funds are frequently directed toward broader infrastructural improvements, such as building or renovating school facilities, which, while necessary, do not directly address the pedagogical challenges that impede student learning and teacher effectiveness(Mundy et al., 2023).

The misalignment between educational budgets and the outcomes revealed in the Education Report Card means that significant educational needs, such as professional development and capacity building for educators, are often underfunded or neglected. For example, despite the urgent need for teacher training in areas like effective technology integration, pedagogical strategies, and subject-specific expertise, budget allocations may prioritize less urgent or less targeted expenditures(Hanemann & Robinson, 2022). This imbalance results in the marginalization of teacher development programs, which are crucial for addressing the root causes of educational challenges. Without addressing the competencies of educators, any infrastructural improvements made through the budget may ultimately fail to lead to meaningful improvements in learning outcomes, as teachers remain underprepared for the evolving demands of the curriculum.

Additionally, the lack of synchronization between budget allocation and program objectives means that educational reforms intended to improve teaching quality are often fragmented or incomplete. In many cases, quality improvement programs become secondary or supplementary to the more visible and politically appealing initiatives, such as infrastructure projects. While upgrading school buildings is undoubtedly important, it should not overshadow the pressing need for investments in the professional growth of teachers. Teacher capacity building

should be prioritized as part of a holistic approach to improving education quality, as it is the educators who directly influence students' learning experiences(Obiakor, 2024). However, due to the mismatch between the allocation of resources and the actual needs of the educational system, these capacity-building programs fail to gain the attention or funding they deserve.

Ultimately, the disconnect between budget planning, program objectives, and real educational needs hinders the effectiveness of the education system as a whole. This misalignment results in a situation where the most critical issues—such as the lack of teacher expertise, inadequate professional development opportunities, and the failure to address the specific needs identified by the Education Report Card—are not being tackled effectively. Consequently, educational improvements are delayed, and the challenges faced by teachers and students remain unresolved. For meaningful change to occur, there must be a reorientation of budget allocations to align with the diagnostic needs identified through data, ensuring that funds are directed where they are most needed: strengthening teacher competencies, improving teaching practices, and ultimately raising the quality of education. Only through this alignment can achieve the educational improvements necessary to bridge the existing gaps and support the long-term success of its students.

Sustained Pedagogical Transformation and Budget Alignment

The findings from this study necessitate a radical re-evaluation Government. Local policies must no longer focus solely on boosting competence scores about literacy and numeracy for the sake of statistical image-building. While it is essential to track improvements in cognitive skills, these should not be the primary measure of educational success. Instead, the focus must shift toward prioritizing the "Quality of Learning" as the central component of the educational system. This paradigm shift is crucial because high cognitive competence scores, if not supported by high-quality teaching and learning practices, risk leading to failure in the overall educational process(Diazgranados Ferráns et al., 2022). Without a strong emphasis on improving the quality of learning, any gains in literacy and numeracy will be shallow and unsustainable, and students will fail to acquire the deeper knowledge and critical thinking skills necessary for future success.

To make this shift a reality, strengthening professional learning communities such as KKG (Teacher Working Groups) and MGMP (Subject Teacher Groups) is imperative. These forums should evolve beyond mere formalities and become spaces for clinical reflection on teaching practices. Educators must have opportunities to engage in meaningful dialogue, share experiences, and collaboratively solve teaching challenges. As emphasized by (Sthapak, 2025) that failure to improve the quality of the learning process at this stage will have long-term consequences. It will lead to a workforce that is inadequately prepared to meet the demands of an increasingly competitive global economy. In the context, this translates to a future where the local human resources will struggle to

compete, as they will have missed the opportunity to develop the skills necessary to thrive in more complex and dynamic environments(Arifin & El-Yunusi, 2026).

To address this, the local government must embrace bold synchronization between the data from the Education Report Card and teacher capacity-building programs. This synchronization should go beyond superficial solutions and prioritize long-term, sustainable professional development. Teachers must not only be trained but also mentored through ongoing, constructive academic supervision(Kaffenberger & Pritchett, 2021). This mentoring should be designed to foster real, lasting improvements in teaching practices, rather than providing short-term training that lacks follow-up and continuity. Teachers need sustained support to develop the skills and knowledge necessary to engage their students in deep, meaningful learning. This requires a comprehensive strategy that integrates data-driven insights from the Education Report Card with targeted professional development programs that address specific teaching gaps.

Furthermore, the local government must ensure that every penny of the education budget has a direct impact on improving how teachers teach and how students learn in the classroom. It is essential that budget allocations are not wasted on programs that do not yield tangible improvements in teaching and learning(Sembiring et al., 2026). The goal should be to create an education system where resources are spent efficiently, focusing on enhancing teaching methods and providing students with an engaging and effective learning environment(Ewulley et al., 2023). This alignment between budget allocation and educational needs will ensure that the financial resources invested in education directly translate into higher-quality learning outcomes for students. By prioritizing teacher development and improving the quality of learning, the regency can build a stronger, more competitive human capital base for the future.

Table 2. The Aspect and Problem Analysis

Aspect	Problem	Analysis
Educational Policy Focus	Overemphasis on improving competence scores (literacy/numeracy) for statistical purposes.	Policies focus on short-term numerical improvements rather than improving the quality of the learning process, which can lead to superficial learning gains.
Priority on Learning Quality	Lack of focus on the "Quality of Learning" as the core element of the education system.	High cognitive competence without quality teaching practices leads to inadequate long-term learning, missing the depth necessary for future success.
Teacher Development	Professional learning communities (KKG, MGMP) not fully utilized for clinical reflection.	These groups are underused for in-depth teacher reflection and collaboration, limiting real improvements in teaching practices.

	Lack of Sustained Teacher Support	Teacher training is not followed by continuous mentoring or supervision.	Training programs lack continuity, and teachers do not receive ongoing feedback or support, which hinders the lasting improvement of teaching practices.
	Budget Allocation	Misalignment between educational budget allocation and actual educational needs.	The budget often prioritizes infrastructure over pedagogical improvements, leading to ineffective programs that don't address the real needs of teachers and students.
	Efficiency of Budget Use	Budget is not effectively spent to improve teaching methods and student learning.	The allocation of funds should focus more on strengthening teaching practices, ensuring that every investment directly benefits classroom outcomes.

The disparity between the significant increase in cognitive scores and the decline in the quality of the learning process highlights that the interventions implemented thus far have been predominantly output-oriented, focusing on short-term numerical improvements rather than long-term educational transformation(Ansari & Muhlis, 2026). To address this issue and overcome the persistent low national ranking, a radical restructuring of budget synchronization is required, based on the real diagnostic insights provided by the Education Report Card. As outlined in the framework of Data-Driven Planning (PBD), every budget allocation in the Regional Government Work Plan (RKPD) and the Education Office's action plans must have a direct functional connection to the underlying problems identified on the ground. By ensuring that financial resources are strategically allocated to address specific educational deficiencies, the region can begin to align its budget with actual needs, leading to more effective interventions that are truly reflective of local educational realities.

The first strategic recommendation is to shift the teacher training model from a classical, one-time training approach to a more sustainable and personalized Clinical Supervision model. The decline in learning quality at the elementary level, marked by a decrease of -2.23 points, underscores the inefficacy of mass, theoretical teacher training programs that fail to produce lasting changes in classroom practices. Once the training ends, teachers often revert to their previous methods, unable to apply new strategies effectively. Clinical Supervision, which focuses on classroom observation, constructive feedback, and continuous reflection cycles, offers a more targeted solution. This model not only helps educators improve their teaching practices on a day-to-day basis but also provides ongoing, context-sensitive support that aligns with the actual challenges they face in their classrooms. (Darling-Hammond, 2020) emphasizes that equitable educational quality can only be achieved if schools consistently use

diagnostic assessments to refine teaching methods and enhance classroom interactions.

In addition to teacher support, policy synchronization should focus on strengthening digital literacy among educators in remote areas. Given the geographical challenges faced, the distribution of learning materials and best practices must be accelerated through the optimal use of technology platforms. However, it is critical to understand, as (Ellis et al., 2020) suggests, that technology should not be viewed as an end in itself, but as a tool to enhance pedagogical interactions. The local government must ensure that budget allocations are not solely directed towards acquiring physical devices, but also towards developing locally relevant digital content that can stimulate critical thinking and engage students in meaningful, context-specific ways. By leveraging technology in this manner, teachers can enhance their ability to provide students with a more interactive and reflective learning experience, one that is both relevant and impactful in the local context. This approach ensures that digital tools are used effectively, not just for the sake of having technology, but to actively improve teaching and learning outcomes.

Finally, amid the national leadership transition, local policies must demonstrate strong stability. The Regency Government needs to formulate local regulations, such as the Regent's Regulations, to guarantee the sustainability of data-driven educational quality improvement programs, regardless of shifting political dynamics at the national level. This step is essential to mitigate the "wait and see" attitude among educators, ensuring that educational reforms are not stalled or derailed by changes in central government leadership. By establishing clear, long-term commitments to improving educational quality, the local government can provide the necessary support to educators, enabling them to remain focused on their role in transforming education. This stability is crucial for maintaining the trajectory of educational reform and ensuring that regency develops a competitive, globally competitive human capital base capable of thriving in an increasingly interconnected world.

Conclusion

Based on the analysis based on Education Report Card data for the Regency, it can be concluded that there is a fundamental disconnect between cognitive competency achievements and the quality of the learning process. The most notable anomaly is found at the elementary school level, where a significant increase in numeracy competence (+7.95 points) contradicts a decline in learning quality (-2.23 points). This suggests that improvements in academic performance are likely driven by repetitive, outcome-oriented interventions, such as drilling, which focus on short-term test results but fail to address substantive pedagogical transformation and critical classroom interactions. A similar pattern is evident at the secondary school level, with stagnant literacy scores (-0.18 points) and a decline in learning quality (-0.75 points). Nationally, all priority indicators remain in the lower ranks, highlighting that the educational interventions implemented

thus far have been fragmented and inconsistent. Consequently, the allocation of resources and local policies have not been able to produce systemic and sustainable improvements in education quality. Without strategic synchronization between data-driven planning and follow-up actions from the local government, the Education Office, and schools, achieving equitable and high-quality national education standards will remain a distant goal.

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