
Strategic evaluation of management efforts to reduce dropouts and enhance learning participation

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Abstract

This study aims to identify effective evaluation management strategies to reduce school dropout rates and enhance educational participation in East Nusa Tenggara Province (ENTP), Eastern Indonesia. Employing a qualitative methodology with a case study approach, the research analyzes educational disparities between urban and rural areas and the effectiveness of current management policies and practices. Data were collected using in-depth interviews, direct observations, and document analysis. The findings were analyzed employing a modified descriptive-analytic approach. The results reveal that the primary factors contributing to school dropouts in ENTP include poverty, limited geographical accessibility, and low awareness of the value of education. While incentive-based policies and community-driven education management have yielded positive results, this study advocates for integrating contemporary educational management principles—such as Outcome-Based Education (OBE), technological innovation, and enhanced community participation. The policy recommendations emphasize the improvement of educational infrastructure, strengthening incentive mechanisms, and implementing contextually grounded strategies to advance inclusive and sustainable education in support of the Golden Indonesia 2045 vision.

Keywords

Evaluation management, Golden Indonesia 2045, inclusive education, learning participation, school dropout

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Introduction

The Golden Indonesia 2045 vision predicts Indonesia's development to become a country with globally competitive human resources. Education, the foundation of nation-building, plays a key role in achieving this vision. However, despite its importance, Indonesia still faces significant educational challenges. One of the major challenges is the high dropout rate in primary and secondary education, which is a key obstacle to achieving inclusive and sustainable education. Data from the Central Statistics Agency (CSA) in 2022 shows a dropout rate of 0.13% at the primary school level, 0.21% at the junior secondary school level, and 0.74% at the senior secondary school level. While these percentages may seem small, they represent hundreds of thousands of children losing access to education yearly.

The problem becomes further exacerbated by the disproportionately low enrollment rates observed in remote and rural regions. According to data from the Gross Participation Index (GPI) in 2022, the enrollment rate for high school only attained 78.75%, exhibiting a pronounced disparity between urban and rural areas. In remote regions, educational access is limited due to infrastructural constraints, including inadequate road networks, the absence of schools, damaged school buildings, substandard facilities and infrastructure, and a shortage of qualified teaching staff (Yusuf, 2024).

The primary factor contributing to the elevated school dropout rate is economic disadvantage, which leads many households to prioritize their financial obligations over their children's educational pursuits. Additionally, the geographical accessibility of educational facilities, particularly in remote regions and islands, poses a substantial challenge for children seeking access to educational institutions. The lack of public awareness about the importance of education—particularly within select communities—is a contributing factor (Zimmerman et al., 2015).

Previous research explains that effective evaluation management can reduce Dropout Rates (DR). UNESCO emphasizes the importance of community-based approaches to enhance education participation in remote areas (Kral & Schwab, 2016). Davis and Sojourner (2021) indicated that incentive policies, such as conditional education grants, can boost the enrollment of children from disadvantaged families. Many studies successfully highlight specific aspects, such as government policies and enhancements to educational infrastructure. However, they often fail to adopt a comprehensive approach that integrates various effective strategies.

This research offers a comprehensive approach by integrating modern evaluation management principles such as Outcome-Based Education (OBE), education technology innovation, and community participation strategies. Another novelty lies in the area-based analysis, which examines education inequality between urban and rural areas and formulates policy recommendations tailored to local needs. Subsequent research endeavors seek to address the following inquiries.

- a. What are Indonesia's dropout and enrollment rates at the primary and secondary education levels, particularly in urban and rural areas?
- b. What are the primary factors that cause high DR and low learning participation in Indonesia?

- c. To what extent do current evaluation management policies and practices effectively address the issue of high rates of attrition and promote increased engagement in learning?
- d. What strategic policy recommendations can be formulated to support the realization of inclusive and sustainable education within the 2045 Golden Indonesia vision?

The primary goal of this research is to identify effective evaluation management strategies that reduce school dropout rates and increase learning participation in Indonesia, especially within the context of the Golden Indonesia Vision 2045. By linking this research to the Golden Indonesia 2045 vision framework, it offers a strategic contribution toward developing an innovative, sustainable, and inclusive education system. The research findings will serve as a reference for policymakers and stakeholders in designing impactful solutions to improve the quality of Indonesia's human resources and ensure equitable access to education for all.

Literature Review

The vision of the golden Indonesia 2045 and the importance of improving the quality of human resources (HR)

The vision of a Golden Indonesia 2045 represents the aspirations of the Indonesian people to transform the nation into a developed country by the centenary of its independence. This vision aims for a robust economy, equitable distribution of social welfare, and the cultivation of outstanding human resources capable of competing on the global stage. Enhancing the quality of human resources is essential for Indonesia to thrive in the era of globalization and Industry 4.0. Countries utilizing technology and possessing a skilled workforce will lead global competition. Prioritizing quality education is a strategic approach to developing a competitive workforce.

The Indonesian government has established various targets to create an intelligent, productive, and innovative society with a strong national character by 2045. Access to quality and equitable education is essential, aligning with the Sustainable Development Goals (SDGs), particularly SDG 4, which focuses on inclusive and quality education. Every child, without exception, should have an equal opportunity to access an appropriate and relevant education (Ferguson et al., 2018).

However, Indonesia still faces significant challenges in achieving this vision. One is the high dropout rate, especially in underdeveloped, border, and outermost areas. Economic problems, inadequate educational facilities, and a lack of qualified teachers are key obstacles. Furthermore, the difference in educational quality between urban and rural areas worsens the gap in learning participation (Van Maarseveen, 2021).

Evaluation management in education

Evaluation management in education is a systematic approach to assessing the effectiveness of policies, programs, and learning methods in the education system. This evaluation examines not only student grades but also analyzes additional factors that influence the quality of education, including the curriculum, teaching methods, and implemented

policies (Stufflebeam, 2003). A comprehensive evaluation can provide information to design evidence-based solutions for improving the education system (Weiss, 1998).

The evaluation process involves collecting, analyzing, and interpreting data to assess the extent to which educational goals are achieved. The evaluation aspects include the quality of the curriculum, the teacher's competence, and the efficacy of educational policies (Scriven, 1991; Stake, 2001). Through comprehensive evaluation, policymakers can make more informed, evidence-based decisions to improve the quality of learning (Stufflebeam, 2003).

Overcoming these challenges requires a strategic approach based on evaluation and continuous improvement of education policies. These evaluations will help ensure that education policies are effective and sustainable, supporting the achievement of Indonesia's Emas 2045. The primary purpose of education evaluation management is to improve the overall quality of education. The evaluation identifies strengths and weaknesses in the current education system, providing a foundation for designing more effective improvements (Fitzpatrick, 2012). It also serves to identify existing problems, such as low student participation or limited access to adequate educational facilities (Scriven, 1991). In addition, evaluation provides data to design evidence-based solutions that can improve educational policies and programs, making decision-making more objective and practical.

A popular evaluation model is the CIPP (Context, Input, Process, Product) model, developed by Stufflebeam (2003). This model evaluates education policies from multiple perspectives, including context, resources utilized, implementation processes, and the outcomes achieved. With this approach, education evaluation becomes more thorough and evidence-based, supporting continuous improvement of the education system.

The importance of evaluating management strategies to ensure the effectiveness of education policies

Evaluation management is essential in education, as it guarantees that educational policies significantly enhance the quality of learning. It empowers the government and stakeholders to evaluate the effectiveness of current education policies and determine their success in achieving desired outcomes. By employing a systematic evaluation approach, the researchers can pinpoint areas for improvement, ensuring that policies are precisely targeted for maximum impact (Stufflebeam, 2003).

One of the great benefits of evaluation management is its powerful ability to identify problems in education policy implementation. Evaluation is crucial for determining whether an educational policy or program, such as an education support initiative or a newly implemented curriculum, truly meets the needs of learners. It lays a strong foundation for developing evidence-based policies relevant to the actual conditions on the ground (Scriven, 1991; Fullan, 2007). Evaluation enables policymakers to assess programs such as vocational education and teacher training to determine whether they have met their goals and yielded positive outcomes (Guskey, 2000).

Furthermore, evaluation is essential for creating more effective policies. Policies based on concrete data are more effective than those based on assumptions. By evaluating factors that contribute to educational challenges, such as low enrollment and high dropout rates,

evidence-based solutions can be developed to address these issues (Darling-Hammond, 2000; Smith & Engelsen, 2013).

The CIPP model (Context, Input, Process, Product), developed by Stufflebeam (2003), effectively manages educational evaluations. This model delivers a robust framework for confidently assessing education policies from multiple perspectives. Focusing on contextual analysis, resource availability, implementation, and outcomes ensures the effective execution and long-term sustainability of education initiatives.

Methodology

Research design

This research uses qualitative methods (Yin, 2018). This research aims to understand complex social issues thoroughly, including the causes and effects of high school dropout rates and low participation in learning in East Nusa Tenggara Province (ENTP), Eastern Indonesia. Researchers can use qualitative methods to examine subjects' experiences, perspectives, and viewpoints within a specific context. The study employs a case study approach (Creswell, 2013; Yin, 2018) to thoroughly examine the phenomenon of school dropout in ENTP in a representative manner. Case studies help researchers understand local contexts, including geographical, socio-economic, and cultural factors that affect access to education. Additionally, it provides a comprehensive understanding of the issue, emphasizing the interactions among educational stakeholders such as students, teachers, parents, and government entities (Stake, 1995).

Participants

The study involved four main groups of participants: school principals, teachers, parents, and the local education office. The selection of participants was based on their strategic role in the education system and their relevance to the issues of learning participation and dropout rates. School principals were chosen because they are responsible for implementing policies and managing operations. Principals gave strategic advice regarding managing learners at risk of dropping out, implementing internal policies, and administrative data related to learners who have dropped out. Principals' perspectives are essential for understanding the role of school policies in supporting educational sustainability. Teachers, as the key implementers of education, interact directly with learners. Teachers share their views on learning barriers, learner motivation, and operational constraints in the educational process. Teachers' input is relevant for evaluating the effectiveness of learning and its impact on learner participation. Parents, as directly responsible for their children's education, provide important information about the social, economic, and cultural factors that influence their children's further education. This perspective is key to understanding the problem of high dropout rates. Local education offices provide essential data such as Gross Enrollment Rates (GER) and Dropout Rates (DR). Their engagement clarifies the local policy context and the effectiveness of intervention programs promoting inclusive and sustainable education.

Data collection

This study confidently employed three primary data collection techniques: in-depth interviews, participatory observation, and documentation studies. These carefully selected methods effectively gathered comprehensive and relevant data directly aligned with the study's focus. Interviews with school principals, teachers, parents, and local education office representatives focused on their views, experiences, and challenges related to dropout rates and participation issues. This approach allows us to gather valuable insights that inform our strategies for addressing these critical areas.

The interview questions were semi-structured to explore key topics, including education policies, learning challenges, and socio-economic factors (Kvale & Brinkmann, 2015). The researchers conducted observations in the school environment to understand how these factors influence learning and student management. This approach emphasized the patterns of teacher-student interaction, the quality of educational facilities, and the dynamics of the school community—all essential for ensuring educational sustainability.

Additionally, the study carefully documented environmental factors such as infrastructure and accessibility that affect enrollment rates (Creswell, 2013). Documentation studies played a vital role in confirming the findings from interviews and observations while delivering essential macro-level data on GER and DR. This robust methodological framework is instrumental in ensuring the accuracy and triangulation of research data (Lincoln & Guba, 1985).

Data analysis

This study employed an interactive data analysis model, as described by Miles and Huberman (1994), which consists of three essential steps. First, data reduction was systematically applied. In this phase, this research carefully selected, simplified, and organized data from interviews, observations, and documentation studies to highlight the most relevant information. This research systematically excluded data that was not pertinent to our research objectives. This approach enabled us to identify key patterns and themes associated with dropout rates and learning participation. In the second step of our process, the research concentrated on effectively presenting the data. This research organized the refined data into structured formats, including matrices, graphs, and descriptive narratives. This presentation aims to deepen our understanding of variable relationships, provide clear visualizations of our findings, and establish a solid basis for drawing informed conclusions.

In the final step, the research emphasized the importance of drawing conclusions and verifying our results. In this phase, the research analyzed the data to determine key findings that support or contradict our initial hypothesis. Verification is an ongoing process that involves comparing our analysis with the original data to ensure accuracy and consistency. The research followed Lincoln and Guba's (1985) guidelines to enhance data validity and focused on four critical aspects through triangulation. Credibility is established through various methods and sources and by verifying findings with respondents. Improving transferability involves providing detailed descriptions, enabling effective use of our research results in similar contexts. Dependability is assured through meticulous documentation of the entire

research process. Confirmability is established by demonstrating that our findings are free from researcher bias, utilizing field data as a trustworthy reference point. This research is committed to ensuring that our research findings are credible, consistent, and applicable across a broader context (Miles & Huberman, 1994; Lincoln & Guba, 1985). This comprehensive approach reinforces the integrity of our work and its relevance to various applications.

Results and Discussion

School dropout rates and enrollment in Indonesia's urban and rural areas

Enrollment and dropout rates in Indonesia, at both the primary and secondary levels, demonstrate significant disparities between different stages of education and between urban and rural areas. While primary education is generally affordable, secondary education faces crucial challenges, particularly in specific regions (Patandung & Panggua, 2022). According to data published by the CSA in 2022, Indonesia's dropout rate at the primary school level is very low, at only 0.13%. However, this rate increased at the secondary education level, with the DR at junior secondary school reaching 0.21% and senior secondary school reaching 0.74%. The rise in dropout rates at the secondary education level highlights the significant challenges faced by students in rural areas. The head of the local education office also addressed this issue,

"We see significant disparities in dropout rates, especially at the secondary level. Although the dropout rate at the primary level is very low, the main challenge is at the junior secondary and senior secondary levels, especially in rural areas where enrollment is still low". (Interview, Director of Education, East Nusa Tenggara, 2024).

Educational inequality between urban and rural areas in Indonesia is a significant problem (Rahmadi, 2020). The Central Bureau of Statistics of East Nusa Tenggara Province (ENTP, 2024) found that educational facilities are more available and accessible in large cities than rural areas. Interviews with school principals and teachers reveal that a primary reason for high dropout rates in rural areas is the challenging economic conditions faced by families. Many children must work to help their families' economy, making it difficult for them to focus on their education. In many cases, they face a choice between education and work, and work is often the first choice (Kodri et al., 2024).

Economic factors are not the sole considerations when addressing educational challenges; geographical factors also warrant significant attention. Many students in rural areas must travel significant distances to reach their schools. Such extensive commuting, coupled with inadequate transportation options, imposes additional burdens in terms of both financial costs and time commitments. These challenges lead to higher rates of student absenteeism and an increase in dropout rates. The lack of infrastructure in rural areas, such as unreliable transportation, further hampers students' ability to attend classes regularly (Suraharta, 2021). The explanation found support in the data obtained from school principals and teachers during the interview, which revealed that:

"In rural areas, the economic condition of families significantly influences the dropout

rate. It is a common occurrence for children to engage in labor to assist their families rather than pursue their education. Furthermore, the dearth of adequate transportation options contributes to the challenges students face in maintaining consistent school attendance, thereby leading to an escalation in the dropout rate within these regions." (Interview, Principal and Teacher, East Nusa Tenggara, 2024).

Indicators such as School Enrollment Rate (SER), Gross Enrollment Index (GEI), and Pure Enrollment Rate (PER) serve as metrics for evaluating educational participation through the National Socio-Economic Survey (Susenas). In 2022, the GEI noted an imbalance in learning participation between urban and rural areas. The School Enrollment Rate (SER) for children aged 7 to 12 shows the percentage of children attending school, regardless of their educational level. This metric is essential for understanding educational access in this age group. The Primary School Gross Enrollment Index (GEI) shows the percentage of children enrolled in primary school. The Proportion of Enrollment Rate (PER) indicates the percentage of 7- to 12-year-olds who attend school on time. In 2023, the SER for ENTP at 7-12 years was 98.62%, the GEI at the primary school level was 111.35%, and the PER was 95.98%. Gross Enrollment Index (GEI) values exceeding 100% indicate the presence of children enrolled in primary education who fall outside the official age range for that educational level (Agus et al., 2024).

Although the PER at the primary school level in ENTP exceeded the target, it is still the lowest in Indonesia. Educational participation in urban areas is higher than in rural regions, as evidenced by a greater gross enrollment ratio (GER) in cities. This trend underscores the distinct differences in participation patterns between these two environments. Educational participation is growing, but we must address the 2020-2021 decline during the pandemic. It is essential to recognize this setback in the context of our ongoing efforts to advance educational engagement. In addition, this decline presents a critical challenge. Stakeholders must seize this opportunity to implement effective strategies that enhance educational engagement and ensure ongoing progress.

At the junior secondary school level, the School Participation Rate (SPR), Gross Participation Rate (GPR), and Pure Participation Rate (PPR) show positive trends. However, these achievements have not yet met the targets set by the Ministry of Education, Research, and Technology. Regions like East Sumba consistently demonstrate some of the lowest SPR in the country. The senior high school participation rate was 89% in urban areas and 78.75% in rural areas. This drop is due to a lack of access to rural education access. In regions such as ENTP, the shortage of qualified teachers in math and science subjects significantly worsens the situation. Addressing this gap is essential for improving educational outcomes. Despite the government's efforts to boost participation in secondary education, significant challenges persist, especially in rural areas. These regions struggle with poor educational quality and insufficient teaching resources.

At the senior high school level, the SPR for 16-18-year-olds in ENTP is 75.93%, the GPR is 86.66%, and the PPR is 58.15%. The current figures still fall short of the government's target, highlighting that secondary education participation in East Nusa Tenggara remains low. Therefore, accelerated efforts are needed to ensure equitable access to education in the East Nusa Tenggara region.

The marked decline in enrollment and the increasing dropout rate in rural areas indicate

a pressing need for focused policy interventions in these underserved regions. Upgrading existing education facilities in rural areas, improving education infrastructure, and ensuring equitable distribution of teachers are crucial. Family economic factors significantly impact educational attainment and often create substantial obstacles to children's continued education.

The disparity in educational attainment between urban and rural regions is a significant concern. The observed discrepancy arises from infrastructure deficiencies, economic factors, and poor teaching quality. Although urban centers generally provide superior access to educational opportunities, numerous regions continue to confront challenges related to substandard teaching standards. Rural schools face a pressing challenge: a significant shortage of qualified teachers, particularly in crucial subjects such as math and science. This issue demands immediate attention and action. Furthermore, the lack of training opportunities and incentives for teachers in remote regions makes it difficult to improve teaching quality. Consequently, imperative measures include ensuring an equitable distribution of qualified teachers, particularly in challenging subjects, and prioritizing specialized training for rural educators.

To effectively address this inequality, we must evaluate different effective policies. A crucial policy is imperative for enhancing educational infrastructure in remote areas, ensuring students have easy access to schools. This enhancement includes constructing modern school facilities and providing reliable transportation options for students in these regions. Additionally, offering economic assistance to low-income families through conditional education programs can alleviate the financial burden of education and increase student participation in learning.

It is also essential to ensure an equitable distribution of teaching staff and to enhance the quality of teaching in rural areas. Continuous training for teachers is necessary to equip them with the skills that align with the curriculum and address the educational needs specific to these areas. Furthermore, technology can play a significant role by providing accessible teaching and training materials for teachers and students in remote locations (National Development Planning Agency, 2020). The following is an excerpt from an interview with the head of the local education office:

"Inequality in education participation between urban and rural areas remains a serious problem. Though indicators such as APS and APK demonstrate positive trends in rural areas, challenges persist regarding the quality of education and access to adequate facilities. Equitable distribution of teachers and education infrastructure should be a priority" (Interview, Head of the Education Office, East Nusa Tenggara, 2024).

Indonesia needs to implement specific actions to ensure inclusive and equitable education. These include improving education infrastructure, ensuring the equitable distribution of teaching staff, and providing economic assistance to low-income families. The issue of education inequality, particularly between different education levels and across urban and rural areas, demands urgent attention from both the government and society. Appropriate policies enable Indonesia to address educational inequality and ensure equitable education across all regions. Providing quality education is imperative for Indonesia's future

development, as it ensures that all children, irrespective of their background, have an equal opportunity to receive a comprehensive education (Kawuryan et al., 2021).

The main factors causing high dropout rates and low learning participation in ENTP

The high DR and low learning participation in ENTP are complex problems influenced by various social, economic, and geographical factors. The Ministry of Education, Research, and Technology (2023) has identified key factors affecting education, including infrastructure, quality of education, unequal access in urban and rural areas, and the shortage of qualified educators. The following is an analysis of the main factors contributing to the problem.

Poverty

One of the main factors leading to high DR in Indonesia is poverty. Children from low-income families often must help their parents earn a living, forcing them to leave school. In areas with high levels of poverty, many children must work in the agricultural sector or even help with household chores, which hinders their ability to continue attending school. Data indicates that low-income families are more likely to prioritize immediate economic needs over long-term educational goals. Ultimately, such behavior leads to many children dropping out of school early (Suhendar et al., 2024). The above explanation is confirmed through information provided by parents,

“Our children are often forced to drop out of school to help earn a living. In our area, poverty makes education a heavy burden. Although there are aid programs, their distribution is uneven, and we often find it difficult to take advantage of them to ensure that our children stay in school.” (Interview, Parent in East Nusa Tenggara, 2024).

According to Afkar and Yarrow (2021), around 30% of families in Indonesia still live below the poverty line. This suggests that for many families, particularly those in remote areas, the cost of education represents a substantial burden. Although there are assistance programs such as the School Operational Assistance (SOA) and Smart Indonesia Card (SIC) programs, the unequal distribution of assistance and low awareness of these programs still hamper efforts to reduce school dropouts.

Limited education facilities

The limited availability of educational facilities, especially in rural areas, significantly contributes to low student enrollment and high dropout rates. In ENTP, many schools have very minimal facilities. Some schools even lack classrooms, textbooks, and essential learning equipment. In some villages, the distance between a student's home and the school can be tens of kilometers, making children reluctant to attend classes or even forcing them to drop out due to inadequate transportation (Rira & Sinding, 2023). The principals and teachers also explained the limited facilities,

“In numerous educational institutions, the available facilities remain severely constrained. The lack of classrooms and teaching materials hampers the teaching and learning process. The long-distance between schools are also an obstacle, plus the shortage of skilled teachers, especially in mathematics and science, which worsens the quality of education and reduces students' interest in continuing to attend school.” (Interview, Principal and Teacher, East Nusa Tenggara, 2024).

Moreover, the quality of schools in rural areas is generally lower than in urban areas. Many schools lack enough qualified teachers who meet professional standards. In ENTP, there is a shortage of math and science teachers, exacerbating the inequality in the quality of education. In addition to low graduation rates, such an imbalance discourages students from continuing their education.

Limited access to quality teachers

The lack of quality teachers in remote areas is a significant obstacle to improving the quality of education. Teacher quality has a direct impact on instructional effectiveness and student learning outcomes. In many regions of ENTP, existing teachers often lack adequate training or fail to meet subject-specific instructional needs. Many teachers lack educational backgrounds that align with the subjects they teach. This mismatch highlights a significant opportunity for improvement in teacher training and subject-area expertise. It significantly reduces the effectiveness of learning and lessens the desire of students to continue their education. Based on information provided by the head of the education office, that

“The shortage of qualified teachers in remote areas like our province is a key obstacle to the quality of education. Many teachers lack adequate training, and the challenge of attracting qualified educators to the area further exacerbates the situation. It hinders learning effectiveness and contributes to students' disengagement from educational institutions.” (Interview, Head of the Education Office, East Nusa Tenggara, 2024).

Qualified educators often choose not to relocate to remote areas because of the lack of adequate facilities and social opportunities. As a result, areas experience a shortage of qualified teachers, so the improvement of education quality stagnates. According to the UNESCO report, low-quality education is closely linked to the unequal distribution of qualified educators, negatively impacting educational outcomes in certain regions (Chekol, 2024).

Culture and social norms

Cultural and social norms in several ENTP regions also play a significant role in low participation and high dropout rates. In some domains, there is a view that formal education is not always necessary, especially for girls. It is rooted in the traditional view that girls are better off staying home and helping with household chores. As a result, many girls drop out of school earlier than boys.

Many underprivileged families hold the flawed belief that higher education is unnecessary for their children. This misguided view often drives parents to withdraw their

children from school. These families perceive education as a luxury, a seemingly exclusive opportunity for those who can afford it. This viewpoint restricts their children's potential and solidifies a cycle of disadvantages that can be difficult to escape. Acknowledging and addressing this issue is essential to ensure a better future.

Infrastructure and technology limitations

In the digital era, inadequate access to technology and educational infrastructure constitutes a significant problem, particularly in rural regions. Some areas lack a sufficient internet connection. During the pandemic, the inability of students to access online learning has emerged as a substantial problem, compelling many students in remote areas to discontinue their education. Despite the government's efforts to provide distance learning tools, such as printed modules, these measures have limited reach. They cannot fully replace face-to-face learning (Presidential Decree No. 17 of 2023). This situation was explained by the school principal and the head of the education office as follows.

“The limited access to the internet and technology in our province has been a big obstacle, especially during the pandemic. Despite efforts to distribute printed modules, this limited access has forced many students to drop out. Inadequate infrastructure and limited access to technology further exacerbate education inequality in remote areas.” (Interview, Principal and Head of the Education Office, East Nusa Tenggara, 2024).

The high dropout rates and low student engagement in Indonesia, particularly in East Nusa Tenggara Province (ENTP), represent significant challenges rooted in multiple underlying factors. Addressing these issues is essential for improving educational outcomes in the region. The primary factors contributing to this issue include poverty, inadequate educational infrastructure, a shortage of qualified teachers, social norms, and limited access to technology. To address these challenges, we must implement policies that ensure equal access to education, improve teaching quality, and enhance educational infrastructure in remote areas. Collaboration between the government and society is essential for creating an environment that effectively supports education for every Indonesian child (Ministry of Education, Research and Technology, 2022).

Effectiveness of evaluation management policies and practices in reducing dropout rates and increasing learning participation

Evaluation management indicates that although various policies have been implemented to improve the education system, the outcomes have not always met expectations, particularly in ENTP (Karolina et al., 2021). To better assess the success of these policies and practices, it is essential to examine multiple aspects, including government policies, regional implementation, and the challenges encountered during execution.

Government programs to reduce school dropout rates

One of the Indonesian government's policies aimed at reducing dropout rates is the provision of School Operational Assistance (SOA) and the Smart Indonesia Card (SIC). The SOA program in Indonesia aims to reduce education costs for parents. By providing funding, schools can enhance facilities and reduce operational costs, thereby helping to prevent student dropouts caused by financial difficulties (Suraharta, 2021). This support from the Indonesian government aligns with the statements made by the Head of the Education Office and the School Principal.

“The SOA and SIC programs are designed to reduce school dropout rates, but in our province, constraints such as poor infrastructure and a shortage of qualified teachers continue to hamper their success. In addition, issues of unequal distribution and lack of understanding about the management of SOA funds often reduce the positive impact of these programs.” (Interview, Principal and Head of Education Office, East Nusa Tenggara, 2024).

The SOA program has been successfully implemented, but there are still several areas where this valuable assistance could be optimized. One significant challenge is the inadequate understanding of effective SOA fund management at the school and local government levels. Furthermore, substantial disparities in education quality persist between urban and rural areas, particularly in remote regions. Addressing these issues is essential for improving educational outcomes for all students.

The SIC program is a vital initiative that enables children from low-income families to continue their education without financial constraints. Despite having many SIC recipients, the program effectively overcomes several implementation challenges. Addressing the inequities in aid distribution and elevating outreach efforts are imperative to enhance the impact of initiatives. It will guarantee that all qualifying households receive pertinent notifications regarding the available aid. Addressing these issues will significantly reinforce the program's impact. Consequently, countless children who deserve educational support are left without the means to access it (Meier, 2004).

Improving access and quality of education through compulsory education policy

The Indonesian government's implementation of a 12-year compulsory education policy decisively addresses the issues of dropout rates and boosts student participation in learning. This initiative is a significant step forward in ensuring that every child receives the education they deserve. The policy's objective was to guarantee that no child falls behind in formal education by requiring children to complete their education up to high school or an equivalent level. The efficacy of this policy, particularly at the junior high and high school levels, has been demonstrated by a notable increase in participation rates across several regions (Freeman & Simonsen, 2015).

However, the policy has encountered challenges in certain areas, such as ENTP, where inadequate educational infrastructure and challenging geographical conditions pose significant obstacles. Despite programs to improve educational facilities, many regions struggle to provide schools with sufficient capacity to accommodate all students. The geographical challenges, such as long distances between residences and schools, compounded by inadequate transportation infrastructure, impede the ability of children residing in remote areas to maintain continuous and regular school attendance (Supianto et al., 2023).

School evaluation management practices and their impacts

At the school level, evaluation management practices also play a key role in reducing dropout rates. Effective evaluation management entails meticulous planning, adept human resource management, and continuous monitoring and evaluation to guarantee an effective teaching and learning process. However, in numerous schools, particularly in underdeveloped regions, evaluation management continues to confront significant challenges, including the absence of training for administrators and educators in assessing the efficacy of educational programs (Agus et al., 2024). As the principals and teachers explained,

“Evaluation management in schools is crucial to reduce dropout rates, but in our area, many schools lack training for principals and teachers, especially in classroom management and the use of technology. The Sekolah Penggerak program does help, but its implementation has not been evenly distributed, especially in remote areas like our province.” (Interview, Principal and Teacher, East Nusa Tenggara, 2024).

A prime example of effective evaluation management practices is the Sekolah Penggerak program, confidently championed by the Ministry of Education, Research, and Technology. This program aspires to enhance the quality of learning by empowering schools, principals, and teachers with training and resource assistance. The program has demonstrated positive outcomes in several domains, including enhanced teaching quality and improved school management. However, the implementation of this program remains limited and uneven, particularly in rural and isolated regions where many schools lack adequate facilities and infrastructure (Rahmadi, 2020). Moreover, parental involvement in evaluation management in school settings is essential. However, in many impoverished regions, parents face constraints in allocating time, acquiring knowledge, and accessing resources due to their focus on subsistence activities, resulting in diminished involvement in their children's education (Ningsih et al., 2022). Consequently, such involvement hampers educational support, reducing the likelihood of children persisting in their schooling (Rahmadi, 2020).

A review of the significant challenges in teacher management and education quality in Indonesia

The quality of education in Indonesia, particularly in rural areas, is significantly influenced by the caliber of the teaching faculty. The government recently launched a program to certify teachers and improve their skills. This initiative has already improved the quality of

education in various areas; however, many regions still face a critical shortage of trained teachers, particularly in remote locations. A significant challenge lies in the inadequate provision of teachers, particularly in crucial subjects such as mathematics and science, resulting in a marked deficit in primary and secondary education.

Furthermore, managing the distribution of teachers is an enormous challenge. The policy to deploy teachers to remote areas is in place; however, many teachers are understandably reluctant to remain in these locations due to the inadequate living conditions. This phenomenon has precipitated issues of teacher instability in numerous regions, exerting a direct influence on the quality of education.

The effectiveness of evaluation management policies and practices

The evaluation management policies and practices implemented by the central and regional governments in Indonesia have proven highly effective in significantly reducing dropout rates and enhancing student participation in learning. However, the efficacy of these policies is contingent upon proper implementation and equalization of policies to areas that necessitate more attention, particularly in rural and remote regions. Despite implementing educational assistance programs, initiatives to enhance teacher quality, and policies mandating compulsory education, persistent challenges such as poverty, inadequate infrastructure, and unequal distribution of education resources continue to pose significant obstacles (Ministry of Education, Research and Technology, 2022). The primary goal is to decrease dropout rates, and a more concerted effort is required from the government, communities, and the private sector to establish more equitable access to education throughout Indonesia. The government must prioritize enhancing the quality of education in disadvantaged regions and ensuring that educational programs are accessible at all levels of society, particularly those in remote and challenging-to-reach areas (Muiz et al., 2024).

A strategic policy for inclusive and sustainable education towards the vision of a golden Indonesia 2045

Evaluation management is centered on achieving inclusive and sustainable education as one of the primary pillars of realizing the Golden Indonesia Vision 2045, which aims to make Indonesia a developed, just, and prosperous country (Elmi & Librianty, 2023). Evaluation management plays a crucial role in assessing the effectiveness of inclusive education and ensuring the participation and engagement of all individuals. Meanwhile, sustainability underscores the continuity of educational quality. The subsequent recommendations outline the strategic policies instrumental in implementing evaluation management, supporting these objectives.

Strengthening policies for equitable access to education

The cornerstone of forging an equitable, inclusive education system is ensuring equitable access to education. A significant challenge in Indonesia is the education gap between urban and remote regions, such as Papua and East Nusa Tenggara (Ministry of Education and

Culture, 2020). To effectively address this issue, it is necessary to conduct evaluation studies that assess the impact of comprehensive strategic policies to reduce educational disparities. These studies are crucial for guiding our efforts and ensuring meaningful progress in education equity. The following steps outline the implementation of evaluation management to promote equitable access to education. It is imperative to initiate this undertaking by formulating a visionary plan to transform and elevate the education infrastructure in remote areas. Proper education facilities are essential to support the teaching and learning process. Unfortunately, many schools in disadvantaged, frontier, and outermost areas lack adequate infrastructure, including school buildings, laboratories, libraries, and access to clean water (Belladonna et al., 2023). The above statement is consistent with the explanation given by the school principal and the director of the education office in the following interview excerpt.

"To realize inclusive and sustainable education, we focus on improving education infrastructure in remote areas such as our province. We are committed to enhancing existing schools and leveraging private-sector engagement to accelerate the development of critical educational facilities. Remote areas need to have access to quality education." (Interview, Principal and Head of the Education Office, East Nusa Tenggara, 2024).

Addressing these challenges necessitates implementing strategic initiatives. These initiatives include the government's allocation of a dedicated budget to construct new schools in remote areas. Additionally, existing schools must be repaired and equipped with necessary facilities, such as computer laboratories and digital libraries. Corporate social responsibility programs must engage companies to support the development of education infrastructure. Research indicates a correlation between access to adequate educational facilities and increased school enrollment rates (Belladonna et al., 2023; CSA, 2023). Moreover, robust infrastructure significantly boosts students' motivation to learn in remote areas.

Equitable teacher distribution

The distribution of teaching staff represents a significant challenge in providing quality education. Teacher concentration in urban areas results in a shortage of qualified teaching staff in remote areas. The following strategic steps have been identified for implementing evaluation management: a) Providing special allowances, such as the remote area allowance, is a strategy to attract teachers to work in these areas. b) Requiring teachers to teach in remote areas as part of their career development. c) Providing teacher training in remote areas aims to improve competencies and meet national teaching standards. Burke and Buchanan (2022) highlighted that implementing incentive policies can significantly enhance the attractiveness of the teaching profession in remote areas. These measures can also play a vital role in addressing educational disparities across different regions.

Use of technology in distance learning (DL)

The advent of technology has become a pivotal solution for bridging the education gap in hard-to-reach areas. DL offers flexibility, enabling students and teachers to continue

teaching and learning activities despite physical separation. To effectively implement evaluation management: a) will prioritize the development of ICT infrastructure in remote areas, ensuring that access to online learning is greatly enhanced. b) Developing learning applications that provide easy accessibility for students and teachers, even in areas with low signal strength. c) Training for teachers on effectively using technology to deliver learning materials.

Integration of equitable access policy in the national education framework

Efforts to strengthen policies for equitable access to education must be part of a sustainable national development program. The government must develop a long-term plan involving various stakeholders, including the community, non-governmental organizations, and the private sector (National Development Planning Agency, 2020). The above statement aligns with the remarks made by the school principal and the head of the education office in the following interview transcript.

"The government must ensure that the policy of equal access to education is effective. We in the education office continue to promote optimal use of the budget and regular evaluation of programs. In addition, we are working to develop the technological infrastructure for distance learning so that students in remote areas can continue to receive quality education," said the Director of Education. The principal added, "Training teachers in the use of technology is also a priority to make learning more effective and innovative. (Interview, Principal and Head of Education Office, East Nusa Tenggara, 2024).

The following are salient points to consider when implementing evaluation management related to equitable access policies. a) The government must ensure that at least 20% of the State Budget is allocated to addressing existing gaps in access to education. b) Implement regular assessments of education access programs to ensure the policies are effective and on track. c) Involve local communities in education programs, such as helping with school construction or supporting learning activities. d) Strengthen the curriculum to align with future needs. A curriculum relevant to future needs is essential in preparing young people to face the evolving global challenges (Mahmudin, 2023). In the 21st century, work and society demand critical thinking, creativity, technological literacy, and collaboration skills. Therefore, the education system must ensure a dynamic curriculum that addresses these needs (Isabirye et al., 2025).

Conclusion

The ongoing challenges of achieving inclusive and sustainable education in Indonesia remain significant obstacles. Data indicates an escalating rate of dropout incidents in primary and secondary education, with impoverished circumstances, inadequate infrastructure, and geographical disparities between urban and rural regions identified as the predominant contributing elements. In East Nusa Tenggara, a province in Indonesia, many children are

compelled to work to support their families' livelihoods. Children must travel long distances to access schools, facing many challenges due to poor educational infrastructure.

This research calls attention to a holistic approach to education management, with strategies such as Outcome-Based Education (OBE), technological innovation, and community engagement emerging as key solutions to improve learning participation. Government policies, such as the School Operational Assistance (SOA) and the Smart Indonesia Card (SIC), have played a crucial role in this effort. Although challenges related to distribution and effectiveness exist, addressing these issues will undoubtedly result in significant improvements. An analysis of the research data reveals that current education policies must prioritize enhancing equitable access and ensuring quality education. The unequal distribution of teachers, particularly in remote areas, presents an enormous challenge. Strategic measures, such as special allowances and localized teacher training have been proposed to address this issue. Technology is a powerful tool that effectively bridges the education gap by enabling distance learning and offering accessible educational applications.

The investigation emphasizes the importance of collaboration among governments, communities, and the private sector in improving educational infrastructure. Initiatives such as building new schools, upgrading existing facilities, and developing transportation networks in remote areas are essential. This study examines the Golden Indonesia 2045 vision as a case study for inclusive and sustainable education, which is recognized as a crucial foundation for developing globally competitive human resources. A comprehensive analysis of the Golden Indonesia Vision 2045 reveals a strategic framework that integrates policies for equitable access, improved teacher quality, and technological innovation to reduce educational inequality. To this end, the government must ensure that education programs reach all segments of society, particularly those in hard-to-access areas to cultivate a generation equipped to face global challenges. Consequently, endeavors to enhance education in Indonesia necessitate policy synergies that prioritize equal access, enhance teaching quality, and leverage technology. By implementing the appropriate strategic measures, Indonesia can actualize equitable, inclusive, and quality education as part of its overarching vision to achieve development by 2045.

Disclosure statement

The authors declared no potential conflicts of interest.

Use of AI Statement

The authors declared that they had not used any AI tools in their manuscript preparation and submission.

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