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Education policy reform to improve education quality and equity in Probolinggo Regency

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Abstract

Education plays a strategic role in improving human resource quality and regional development, yet disparities in learning quality, access to educational services, infrastructure, teacher distribution, and digital resources remain challenges in Probolinggo Regency. This study aims to analyze the conditions, challenges, and strategic directions of education policy reform to sustainably improve educational quality and equity. A qualitative descriptive approach was employed, focusing on basic and secondary education in Probolinggo Regency. Data were obtained through interviews with local government officials, school principals, teachers, parents, students, and other relevant stakeholders, complemented by observation and document analysis. The data were analyzed through data reduction, data presentation, and conclusion drawing. The findings indicate that sustainable education reform requires simultaneous improvement in learning quality and equitable access. Key priorities include continuous teacher and school leadership development, needs-based allocation of educational resources, equitable distribution of teachers and infrastructure, inclusive digital transformation, integrated data-based governance, stakeholder collaboration, and continuous monitoring and evaluation. The study concludes that education policy reform should move beyond regulatory changes toward an integrated, participatory, and evidence-informed governance approach. These findings contribute to educational advancement by highlighting the importance of aligning quality improvement, equity, digital innovation, and accountable governance to establish an adaptive and sustainable education system.

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1. Introduction

Education is one of the sectors that is developing in the area because it plays an important role in strengthening human resources and fostering a welfare society. Through quality education, society has the opportunity to develop knowledge, skills, character, and the ability to adapt to social and economic change. Therefore, the government sector does not have enough answers to ensure that organizational education is not only improvement-oriented academic achievement but also capable of providing equitable, inclusive, and sustainable education for the public. Kurniawan (2025) explains that improving the quality of education can be achieved by integrating technology and local culture within a learner-centered approach. However,

the implementation still faces constraints, including technological limitations and teacher competence. Therefore, education reform needs to consider readiness infrastructure, improvement of educator capacity, and the development of an adaptive curriculum to meet local needs. These findings strengthen the view that improving education quality must be done in a sustainable, adaptable way, tailored to conditions in each region.

In the context of development in the area, the district of Probolinggo, with a growing economy, faces economic and developmental challenges and needs continuous changes in education. Growth-area settlements and mobility can influence the distribution of participants' education levels, needs, learning rooms, availability of qualified educators, and access to quality education for the public. This aligns with Iscahyono, Putri, & Safitri (2026), which shows that the distribution of educational facilities and their affordability in area settlements are important factors in equal access to education. In addition, Maryam, Putri, & Chusnul (2025) show that growth in resident age in schools influences classroom needs, so projections of resident needs serve as a basis for planning educational infrastructure.

Improving educational quality also poses a challenge that cannot be achieved solely through the provision of facilities and infrastructure. Various interrelated factors, such as teacher competence and distribution, quality of school leadership, the learning process, curriculum, the use of technology, evaluation systems, and parental and community involvement, influence the quality of education. Garira (2024) confirms that improving quality education needs to be viewed through a systemic perspective, because achieving quality education involves various components and stakeholders with mutualinterests. In line with this, Kaso et al. (2021) show that improving the quality of education covers aspects such as school leadership, teacher professionalism, learning process, management, facilities and infrastructure, financing, and assessment.

On the other hand, the problem of educational inequality deserves equal attention and importance alongside improvements in quality. Every child has the right to a proper education without being limited by factors such as economic status, family, location, academic ability, or social background. In practice, differences across regions and groups under different conditions create quality gaps in educational services. Therefore, policy education in Probolinggo needs to ensure that improvements in quality are not only enjoyed by the school or certain groups of the public, but are felt more evenly. Lailaturrahmah, Muallimah, Wijayanti, & Zawawi (2026) say that every child has the right to receive proper education without being limited by economic conditions, family income, place of residence, academic ability, or social background.

Equality in education is also closely related to the government's ability to allocate resources in a way that is proportional and need-based. Schools with different characteristics and challenges require distinct policies. A uniform approach could lead to inequality if it fails to account for the specific conditions of each educational unit. Therefore, policy reform needs to strengthen data-based planning, school mapping, and transparent, measurable, and results-oriented budget and resource allocation mechanisms (Husna, 2025; Purwaningsih, 2026).

Besides access and quality, sustainability becomes an important dimension in policy reform in education. Good policy should not only produce short-term improvements but also build an education system that can continue to develop and adapt to changing times. Digital transformation and advances in artificial intelligence have changed workforce demands and called for 21st-century skills, requiring an education system in Probolinggo capable of continuous innovation. This needs to strengthen the capacity of teachers, schools, government agencies, and the overall education ecosystem, including digital transformation, development, and artificial intelligence. Satunggale Kurniawan and Ibnu Kanaha (2026) argue that the education system must sustainably develop its own capacity to innovate.

Policy reform in education also requires better governance and collaboration. The government cannot solve all the problems in education on its own. Schools, teachers, parents, the business world, universities, high schools, organizations, society, and community need to be involved in the formulation, implementation, and evaluation of policy (Tirtaningrum, Albab, & Dwijosusilo, 2025). Collaboration is important so that the resulting policies are better aligned with public needs and gain support from various stakeholders' interests. Public participation can also increase transparency and accountability in organizational education.

Despite growing attention to educational quality, equity, digital transformation, and data-based governance, existing studies tend to examine these dimensions separately, resulting in a limited understanding of how they can be integrated into a coherent regional education policy reform framework. This gap is particularly relevant in Probolinggo Regency, where differences in geographical conditions,

socioeconomic characteristics, teacher distribution, educational infrastructure, digital readiness, and access to educational services create complex and interconnected policy challenges. The existing literature provides important evidence on teacher competence, school leadership, needs-based funding, digital literacy, and data-based planning, but less attention has been given to how these dimensions can be integrated simultaneously into a context-sensitive, sustainable education policy reform strategy at the regional level. This study addresses this gap by developing an integrated empirical perspective that connects educational quality improvement with equitable access, needs-based resource allocation, teacher and school leadership development, inclusive digital transformation, data-driven governance, stakeholder collaboration, and continuous monitoring and evaluation. Its novelty lies not merely in identifying individual educational problems, but in synthesizing these interconnected dimensions into a coherent reform orientation grounded in the specific institutional and socioeconomic context of Probolinggo Regency. Theoretically, the study is grounded in a systemic view of educational quality, the principle of equity in educational resource allocation, and contemporary approaches to data-driven, collaborative governance, which emphasize that sustainable educational improvement requires coordination among multiple actors, evidence-informed decision-making, and alignment between policy interventions and contextual needs. Scientifically, the study contributes to the education policy literature by demonstrating how quality and equity can be conceptualized as mutually dependent dimensions of regional education reform, and, practically, provides an evidence-informed basis for policymakers to design more targeted, inclusive, adaptive, and sustainable education policies. Given the challenges mentioned, education policy reform in Probolinggo is a strategic need to build a system of quality, equitable, inclusive, and sustainable education. This reform needs to be directed at strengthening quality learning, equal access, and resource equity, and increasing educators' capacity. With comprehensively designed policies that address the community's needs, Probolinggo is expected to build an educational ecosystem that improves the quality of human resources and ensures a more equitable education for future generations.

2. Method

2.1. Research Approach and Design

This study uses the qualitative descriptive approach to provide a detailed account of the implementation, problems, and the need for policy reform in education to improve the quality and equity of sustainable education in the Regency of Probolinggo. The qualitative choice is based on this understanding, which is oriented toward naturally occurring phenomena, grounded in stakeholders' perspectives and experiences, and informed by the interests involved in organizational policy and education. According to Moleong (2017), qualitative research aims to understand phenomena from the perspective of what the subject experienced, holistically, and is described in natural language. In line with Sugiyono (2019), the qualitative research method is used for research on natural objects, with the researchers as the key instrument, and the study emphasizes meaning. Thus, the approach in this study is a qualitative descriptive one. This allows researchers to comprehensively identify and analyze the implementation of the education policy, the problems encountered, and the need for policy reform from the perspectives of government agencies, education units, educators, participants, and stakeholders with related interests.

2.2 Research Location and Focus

The research was conducted in Probolinggo Regency, focusing on the implementation of education policies at the primary and secondary education levels. The location was selected because it provides an appropriate regional policy context for examining educational quality, equity, and the sustainability of education reform. The study focused on three interconnected dimensions: improving the quality of education, strengthening equitable access to educational services and resources, and ensuring the sustainability of education policy reform. It also examined supporting and inhibiting factors affecting policy implementation at the local government and school levels, particularly teacher competence and distribution, school leadership, educational facilities and infrastructure, digital readiness, data-based planning, stakeholder participation, and monitoring and evaluation.

2.3 Data Sources and Participants

The study employed both primary and secondary data. Primary data were collected from stakeholders directly involved in or knowledgeable about education policy implementation, including local

government officials and education authorities, school supervisors, principals, teachers, parents, students, and other relevant stakeholders. Participants were selected purposively based on their knowledge, experience, and direct involvement in educational services and policy implementation. Selection considered their ability to provide information concerning education quality, equity, resource distribution, digitalization, governance, and policy implementation. Recruitment and data collection were conducted progressively until sufficient information was obtained to address the research objectives. Secondary data included education policies and regulations, education reports, statistical data, regional development planning documents, school records, and relevant scholarly literature. The combination of primary and secondary sources enabled data triangulation and comparison between stakeholder perspectives and documentary evidence.

2.4 Data Collection Techniques

Data were collected through observation, semi-structured interviews, and documentation. Observation was conducted to obtain an empirical description of educational service conditions and policy implementation in the field. Semi-structured interviews were used to obtain in-depth information while maintaining consistency with the research focus and interview guidelines. Documentation was conducted by reviewing policy documents, education statistics, program reports, school documents, and other materials related to educational quality and equity.

2.5 Informant Selection Technique

Informants were selected purposively, namely individuals considered capable of providing relevant and reliable information due to their knowledge, experience, or direct involvement in the implementation of education policy. Informants included government officials, education managers, teachers, parents, students, and community representatives. Selection was conducted gradually until the collected information was deemed adequate to address the research focus.

2.6 Data Analysis Techniques

Data analysis followed an interactive qualitative process consisting of data reduction, data display, and conclusion drawing. Interview, observation, and documentary data were organized and reduced by identifying information relevant to the research questions. The data were then categorized thematically into learning quality, equitable access, facilities and infrastructure, teacher distribution, digitalization, data-based governance, school leadership, stakeholder collaboration, and sustainability. Emerging patterns were compared across stakeholder groups to identify similarities, differences, recurring challenges, and relationships among policy dimensions. Finally, conclusions were drawn from recurring patterns across interviews, observations, and documentary evidence. The findings were used to formulate policy reform priorities related to teacher and leadership development, needs-based resource allocation, equitable teacher distribution, inclusive digital transformation, data-based governance, stakeholder collaboration, and continuous monitoring and evaluation. The analytical process can be represented as follows:

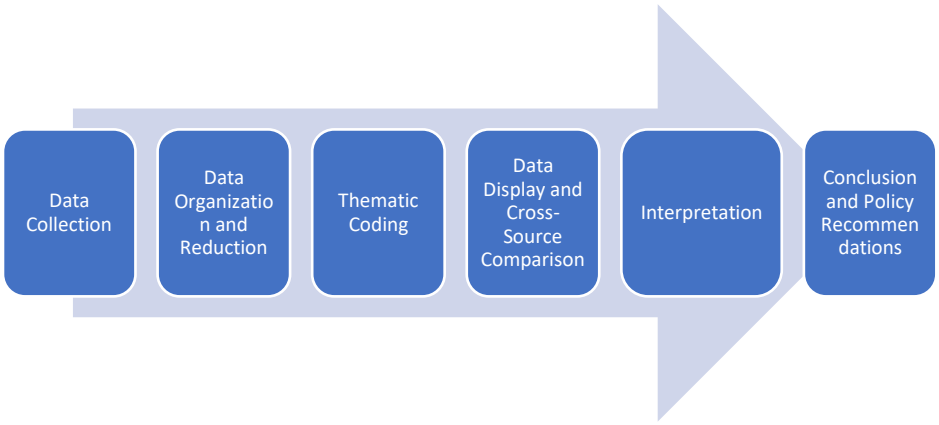


Figure 1. Data analysis

This analytical sequence ensured that policy recommendations were derived from the empirical findings rather than introduced independently of the data.

2.7. Stages of the Study

The study was implemented through several stages, namely: identification of the problem and education; study introduction and literature review; compilation of the instrument; data collection; data analysis; identification of the policy gap; and compilation of policy reform recommendations. At the end of this stage, the study results were used to formulate strategies to support improvements in quality, equality of access, and sustainable organizational education in the Regency of Probolinggo.

Table 1. Identification results of educational policy problems and reforms

No.	Aspect	Identified Problems	Necessary Policy Reforms	Expected results
1	Quality of learning	The quality of the learning process and the competency of educators are not yet fully even	Strengthening teacher competence through training, mentoring, and community Study	Increasing quality learning and outcomes for study participants
2	Equality access	There are still differences in access to quality education services	Strengthening policy reception, participant education, and equality service education based on regional needs	Greater access to education is fair and inclusive
3	Facilities and infrastructure	Conditions and availability of educational facilities are not yet fully the same between schools	Budget allocation based on needs and priorities	Decreased gap in facilities between inter-unit education
4	Educators	Distribution and suitability of teacher competency is necessary, noticed in a sustainable way	Mapping needs and redistribution of power educator data -driven	Greater availability of teachers with proportional and appropriate competence
5	Digitalization education	Capacity and access to technology vary among schools and are not yet fully equitable	Development of digital infrastructure and improvements in digital literacy of teachers and participants in education	Realization of adaptive and data-driven learning technologies
6	Governance education	Data-driven decision-making that is not yet fully integrated	Strengthening system information and planning education data -driven	Policy more appropriate, targeted, transparent and accountable
7	Leadership school	The school's management and leadership capacities need to be continuously strengthened	Developing school principals' competencies and strengthening school-based management	Increasing effectiveness of management unit education
8	Collaboration	Community involvement and stakeholder engagement still need to be improved	Develop partnerships between the government, schools, parents, the community, universities, and the business sector	Develop a collaborative educational ecosystem
9	Sustainability	Educational programs require continuity and long-term evaluation		

3. Results and Discussion

3.1 Results

The research results indicate that education policy reform in Probolinggo Regency is increasingly important in responding to demands for improved human resource quality and changing community needs.

The implementation of education policies has experienced various developments; however, several challenges remain, particularly concerning the quality of learning, equal access to education, the distribution of teaching staff, educational facilities and infrastructure, and the effectiveness of policy implementation. Interviews were conducted to obtain information on the implementation of education policy reform, improvements in education quality, equal access to education, and the sustainability of education policies in Probolinggo Regency. The informants included representatives of the local government, school supervisors, principals, teachers, and parents or community members. The interview findings show that education policy reform in Probolinggo Regency is perceived as necessary to adapt educational institutions to social development, changes in national education policies, technological developments, and increasing demands for higher-quality human resources. These conditions demonstrate that improving educational quality must be implemented simultaneously with efforts to promote equity, so that disparities in educational services between schools and regions do not widen.

3.1.1 Improving the Quality of Learning

The research findings show that improving education quality is strongly influenced by the quality of the learning process in schools. Teacher competence, the use of innovative learning methods, the use of technology, and schools' ability to adapt learning to students' needs are important factors in determining educational quality. Therefore, education policy reform needs to place greater emphasis on developing teacher professionalism through continuous training, mentoring, professional learning communities, and strengthening teachers' ability to utilize educational technology.

According to the Head of the Probolinggo District Education Service (July 31 2026): "In general, education in Probolinggo Regency continues to experience development. The regional government has made efforts to improve education services through various programs, including facilities and infrastructure, improving teacher competence, and expanding access to education. However, there are still gaps between regions, particularly between areas that are relatively easy to access and areas with more complex geographical, social, and economic conditions. A similar view was expressed by a teacher (March 8 2026), who stated: "Policy changes encourage teachers to continue learning and adapting their teaching methods. Teachers are required to be more creative, use technology, and pay attention to students' needs. However, policy changes also require adequate socialization and mentoring so that teachers not only understand the regulations but are also able to apply them in learning activities."

These findings demonstrate that the success of education policy reform depends heavily on teacher capacity, as teachers are the primary implementers of the learning process. Consequently, every policy change needs to be accompanied by continuous training, mentoring, monitoring, and evaluation. Although the regional government has implemented various programs to improve education quality, equity remains a significant challenge. Differences in geographic conditions, community socioeconomic circumstances, and the availability of educational facilities and teachers can affect the quality of services students receive. In addition to teacher competence, improving education quality requires stronger school management. Principals play an important role in creating a conducive learning environment, encouraging innovation, fostering a culture of quality, and ensuring that school programs align with students' needs. Therefore, strengthening school leadership capacity should be considered an important component of education policy reform.

3.1.2 Equal Access to Education and Educational Services

The research findings indicate that educational equity is not limited to the availability of schools but also includes affordability, service quality, and students' opportunities to obtain appropriate education. Differences in family socioeconomic conditions and regional characteristics can influence students' ability to access educational services. Therefore, policies for educational equity need to consider the specific conditions and needs of different regions and community groups.

The Head of the Probolinggo District Education Service (July 31 2026) explained: "Educational equity has become a government priority, but there are still challenges in some areas. The distance between students' homes and schools, family economic conditions, transportation facilities, and the availability of educational facilities are factors that can influence access to education." These findings demonstrate that educational equity has broad dimensions. Equity concerns not only the availability of schools but also students' ability to reach schools, the quality of services they receive, and the social and economic support that enables them to participate in education continuously. Equity also requires a more proportional

distribution of educational facilities and infrastructure. Schools facing significant limitations should receive greater support to provide comparable educational services. Allocating resources based on actual needs is therefore an important approach to reducing disparities between schools and ensuring that education quality improvement programs do not focus only on schools that already possess relatively strong resources.

3.1.3 Equitable Distribution of Teaching Staff

Teachers are one of the main factors determining the success of education reform. The research results show that the availability and distribution of teachers need to become an integral part of regional education policy planning. Schools with large student populations require sufficient teaching staff, while schools with limited resources require special attention. In addition to the number of teachers, the suitability between teachers' competencies and the subjects they teach also needs to be considered. The interview findings indicate that educational equity cannot be achieved without addressing disparities in teacher distribution. Some schools may have an adequate number of teachers, while others experience shortages or mismatches in teacher qualifications. Such conditions can influence the quality of learning and create differences in educational outcomes between schools. To overcome these problems, the regional government can develop a needs-mapping and teacher-distribution system based on accurate and integrated data. Such policies should be accompanied by competency development programs and adequate support for teachers to respond to curriculum changes, technological developments, and increasingly diverse learning needs.

3.1.4 Digitalization and Educational Innovation

The research findings also show that digital transformation has significant potential to support education quality and equity. The use of technology can expand access to learning resources, support school administration, improve the efficiency of educational management, and provide opportunities for more flexible learning. However, digitalization must be accompanied by improvements in the digital competencies of teachers and students, as well as by adequate infrastructure. The Head of the Probolinggo District Education Service stated: "The government needs to ensure that assistance and educational programs are truly directed toward regions and community groups that need them. In addition, educational needs need to be mapped periodically so that policies are developed according to the conditions of each region." Therefore, education policy reform through digitalization needs to be implemented inclusively. The regional government should not only encourage schools to use technology but also ensure that schools and students with limited technological access are not left further behind. The development of digital infrastructure, provision of accessible learning resources, and improvement of digital literacy should become important components of sustainable education reform.

3.1.5 Strengthening Data-Driven Governance

The findings indicate that educational decision-making needs to be increasingly supported by accurate, integrated, and up-to-date data. Policy priorities can be determined based on information on student enrollment, school conditions, teacher needs, educational facilities and infrastructure, student achievement, and the community's socioeconomic conditions. A data-driven approach enables the regional government to identify educational gaps more accurately and allocate resources according to actual needs. As emphasized by the interview findings, periodic mapping of schools, students, teachers, facilities, infrastructure, and socioeconomic conditions can provide a stronger basis for government intervention. Data-based governance can also strengthen transparency and accountability in education policy. Each program can be established using clear indicators and evaluated periodically based on measurable achievements. Thus, education policy should not focus solely on program implementation but also on the real impact of policies on the quality and equity of educational services.

3.1.6 Strengthening Stakeholder Collaboration

The research findings demonstrate that education reform requires the involvement of multiple stakeholders. Local governments, schools, teachers, parents, communities, universities, and the business sector each play complementary roles in improving education quality. Collaboration can take the form of teacher competency development, support for educational facilities, literacy programs, student skills development, and other forms of partnership. A parent representative (June 8 2026) stated: "Parents hope that schools do not only provide academic knowledge but also develop character, discipline, skills, and

children's ability to face current developments. The community also hopes that the quality of education between schools in different areas will not be too far apart." This statement demonstrates that community expectations of education are becoming broader. Education is no longer understood merely as a process of achieving academic scores but also as a process of developing students' character, skills, independence, and ability to respond to social and technological changes. The parent further explained that parents can support education by paying attention to children's learning activities, maintaining communication with schools, and participating in maintaining a supportive educational environment. Community participation can strengthen ownership of educational programs and serve as a form of social monitoring of policy implementation. Therefore, participatory education governance needs to be strengthened as part of regional-level education policy reform.

3.1.7 Education Policy Reform Strategy

Based on the research findings, education policy reform in Probolinggo Regency should focus on several integrated strategies. First, teacher and principal competencies need to be strengthened through continuous professional development, mentoring, and leadership programs. Second, educational facilities and infrastructure should be distributed in line with regional needs and existing disparities. Third, teacher needs should be mapped using accurate data to achieve a more proportional distribution of teaching staff. Fourth, an inclusive digital education ecosystem should be developed by improving digital infrastructure, teacher competencies, student digital literacy, and access to learning resources. Fifth, education planning, implementation, monitoring, and evaluation should increasingly adopt a data-driven approach. The Head of the Probolinggo District Education Service (July 31 2026) emphasized: "Policy reform is not only related to changes in regulations but also to how policies can be implemented effectively in schools. Improving teacher competence, strengthening school management, utilizing technology, and developing programs that are appropriate to regional needs are several aspects that require attention." Overall, the findings indicate that education policy reform in Probolinggo Regency requires an integrated approach that combines quality improvement, educational equity, digital transformation, data-driven governance, and stakeholder collaboration. Reform will be more sustainable when policies are not merely designed at the governmental level but are translated into practical programs that respond to the actual conditions of schools, teachers, students, and communities. Through continuous evaluation and stakeholder collaboration, education reform can help reduce educational disparities while simultaneously improving the quality of human resources in Probolinggo Regency. The interview findings concluded that education policy reforms must focus on substantive changes. Policies must have a tangible impact on the learning process and the quality of educational services.

Table 2. Education policy reform strategy

Strategy	Implementation Form	Success Indicator
Teacher competency development	Continuous training, mentoring, and professional learning communities	Improved teacher competence and teaching quality
Equitable resource allocation	School needs mapping and priority-based resource allocation	Reduced disparities between schools
Infrastructure improvement	Facility improvement based on school conditions and needs	Improved adequacy of educational facilities
Digital transformation	Digital infrastructure provision and digital literacy development	Increased use of technology in learning
Data-driven governance	Integration of education data for planning and evaluation	More targeted policy decisions
School leadership strengthening	Management and instructional leadership development for principals	Improved school management effectiveness
Stakeholder collaboration	Partnerships with parents, communities, universities, and businesses	Increased stakeholder participation
Monitoring and evaluation	Periodic evaluation using measurable indicators	Improved policy accountability and sustainability

In addition, the policy education needs its own orientation term, independent of the program's implementation over a certain period. Sustainability can be realized through strengthening institutional

development capacity, sourcing power from human resources, ensuring consistent financing, and conducting periodic evaluation of mechanisms. With this approach, education reform can be a process of ongoing system improvement.

3.1.8. Expected Impact

Implementation of policy reforms consistent with expectations can increase the quality of the process and learning results, expand public access to quality education services, and reduce the inter-unit education gap. In the long term, improving the quality and equity of education will enhance the quality of human capital and the competitiveness of the power sector in the area.

Table 3. Matrix of policy reform priorities

Priority	Policy Focus	Time Period	Expected Impact
High	Strengthening teacher and school principal competencies	Short to medium term	Improved teaching and learning quality
High	Ensuring equitable distribution of teachers, infrastructure, and educational facilities	Short to medium term	Reduced disparities in educational access and services
High	Strengthening data-driven education governance	Short to medium term	More evidence-based planning and decision-making
Medium	Advancing digital transformation in teaching and learning	Medium term	More innovative and adaptive learning practices
Medium	Strengthening partnerships and public participation in education	Medium term	A more collaborative education ecosystem
Medium	Establishing a sustainable monitoring and evaluation system	Long term	Greater policy sustainability and consistency

Educational reform in Probolinggo Regency is expected to create an education system that is more adaptive to technological developments and changing community needs. Students should not only be directed to acquire academic abilities but also develop critical thinking, creativity, communication, collaboration, digital literacy, and character. Interview results indicate that educational reform is a process that requires comprehensive, sustainable changes. Reform cannot be achieved solely through regulatory changes; it must be accompanied by strengthening school capacity, improving teacher competence, equalizing educational facilities and infrastructure, expanding access to education, utilizing technology and data, and increasing community participation. Improvements in educational quality and equity must be implemented simultaneously to prevent widening disparities between schools and regions. The success of educational reform is strongly influenced by policy consistency, intersectoral coordination, resource availability, and effective monitoring and evaluation mechanisms. Through this approach, educational reform is expected to improve the quality of human resources while reducing educational disparities in Probolinggo Regency.

3.2 Discussion

Research results show that education policy reform in the Regency of Probolinggo needs to be comprehensive, integrating improvements in quality and equality of access, strengthening human resources, utilizing technology, and continuing education governance. Education cannot be viewed solely as a public service that provides society with access to schools, but also as a strategic instrument for building a high-quality source of power for human beings. Therefore, education policy needs to be designed so that each participant has an equal opportunity to receive high-quality education, free from the influence of social, economic, or geographic conditions.

3.2.1. Improving the Quality of Learning

Improving the quality of learning is a key aspect of educational policy reform. Research results show that quality education is greatly influenced by teacher competence, the quality of the learning process, school leadership, and educational institutions' ability to create a conducive learning environment. Teachers

not only serve as material transmitters but also as facilitators who help participants develop critical thinking, creativity, communication, collaboration, and problem-solving skills.

In this context, the policy improvement of teacher competency needs to be implemented in a way that is sustainable, contextual, and needs-oriented for classroom learning. Development programs for professional teachers should not only focus on administrative or implementation matters, but also be directed at improving the quality of practice learning in a real way. This is supported by Ruhita, Priyanto, & Supriadi (2023), who show that supervision by school heads and teacher self-development are related to improvements in teacher professional competence. Thus, teacher development competency is necessary through mechanisms that enable teachers to obtain mentoring, feedback, reflection, and opportunities for repair and practice sustainably. In addition, research (Titihalawa, Prihatin, & Pramono, 2023) shows a strong and significant relationship between community study and improvement in pedagogical competence among educators, with a correlation coefficient of 0.707. These findings underscore the importance of community studies as a space for teachers to share practice. Therefore, teacher training is necessary, followed by mentoring, community learning, sharing good practices, and evaluation to assess implementation results and improve competence. No need to stop the training activity; rather, focus on having a real impact on the learning process.

Besides teachers, the principal's role is strategic in fostering a culture of quality and building a supportive school environment for professional teacher development. Head schools need the ability to manage power sources, build collaboration, provide academic supervision, encourage innovation, and use information and data to determine priority development areas. Suprapti (2023) shows that the leadership of the head of school plays a role in increasing various dimensions of teacher competencies, including pedagogical, professional, social, and personality competencies. In line with these findings, Werdiningsih and Soedjono (2022) found that leadership, instructional heads of schools, and professional teachers' competencies are generally influential on teacher performance. Findings show that improving teacher quality cannot be separated from quality leadership at the unit education level. Thus, policy reform in education needs to give balanced attention to the development of teacher and principal capacity in schools. Strengthening teacher competency is necessary. Placed in ecosystem schools supported by leadership, capable schools facilitate supervision, collaboration, community learning, innovation, and professional reflection, so that policy improvement competence does not stop at program fulfillment but produces real change in practice, learning, and school quality.

3.2.2. Equal Access to Education

Equality in education is a dimension that cannot be separated from quality improvement. Quality education, accessible only to some members of the public, will still leave a gap. Research results show that equality needs to be understood in a broader sense, not only in terms of the availability of school facilities, but also in terms of the public's ability to access quality education services.

Social and economic conditions of families are among the factors that can influence participants' ability to access adequate support and educational opportunities. Therefore, the education policy area needs to give special attention to groups in society with limited access by providing support financing, strengthening inclusive education services, providing facilities for supporters, and ensuring that every participant has the chance to study without being hampered by economic and social conditions. This aligns with the study (Runiasih & Ahmad, 2025), which shows that funding gaps in education in Indonesia continue to contribute to differences in power availability across schools and regions, underscoring the need for more policy-directed funding to support schools and groups with limited power sources. In addition, Sinclair & Brooks (2024) confirm that policy funding is closely linked to equity in education, so distribution sources need to consider the principle of equity and the conditions of each school. Equity in education is also necessary, as local characteristics differ across regions. The same policy for all schools is not yet producing an equal distribution. Every school has its own conditions, participants, education, environment, socioeconomics, facilities, and infrastructure, as well as different levels of need. In line with this, Perry (2024) shows that an imbalance in power between schools can maintain inequality in educational opportunity.

In contrast, Marsh, Gray, & Norwich (2024) emphasize the importance of funding that accounts for the needs of students with special needs to support a more inclusive education. Thus, the needs-based approach becomes more relevant in the policy education area because it allows the government to have direct power in proportion to the level of need in schools or areas with higher need. This approach not only

emphasizes similarities in the assistance provided to every school, but also ensures justice in the distribution of power among participants from different socioeconomic backgrounds, thereby ensuring equal opportunity to receive quality education.

3.2.3. Equal Distribution of Facilities and Infrastructure

Facilities and infrastructure are important components in supporting the quality of the educational process. The availability of decent rooms, classrooms, libraries, laboratories, facilities, sanitation, sports facilities, and infrastructure can influence comfort and effective learning. Therefore, equitable facilities and infrastructure must be part of the education policy reform agenda.

Research results show that allocating education resources should use a needs-based approach: schools with limited facilities and resources should receive priority support over those with adequate facilities. Findings are in line with the study by Sambarana et al. (2024), which shows that there is still interschool inequality in facilities and infrastructure, as well as an inefficient allocation of educational resources, especially in rural schools. These conditions highlight the importance of allocating power to consider each school's needs, so that government support can be directed to a more appropriate target. Thus, an approach based on need can help government agencies reduce the quality gap in inter-school services, improve equality in educational facilities, and ensure that education budgets are used more effectively and efficiently.

3.2.4. Strengthening and Equalizing the Distribution of Teaching Staff

Teachers are among the most determining factors in educational success. However, having a sufficient number of teachers does not necessarily guarantee high-quality education if they are not assigned to positions that match their needs or if their qualifications do not align with the subjects they teach. Therefore, policy reform needs to address periodic mapping for power educators.

Government areas can use data on the number of participants educated, the number of groups learning, the need for eye lessons, and the availability and competence of teachers to inform policy decisions on the distribution of power to educators. An approach based on the data, in line with previous studies, shows that planning teachers should consider participants to be educated, group-surveyed, and the needs of teachers in each class to create a balance between availability and the per-educator (Rabiatul, 2026). Thus, teacher redistribution policy can be implemented in a more objective, proportional, and appropriate manner, aligned with the needs of each educational unit. However, equality, in a way, is quantitative. Not yet fully ensure improvement in the quality of education. Previous research has shown that an unequal distribution of teachers is also related to gaps in teacher competence, so policy equality needs to be accompanied by the development of teacher competence and professionalism in general, in a sustainable way (Latifah, Rahman, & Muslihah, 2026). Therefore, the ideal redistribution of teachers is not only intended to address the shortage of educators but also to ensure that every school is assigned teachers whose competencies align with the subject-specific needs, thereby supporting high-quality and equitable learning.

3.2.5. Digitalization of Education

The development of technology has changed the way the public acquires and uses information. In the field of education, digitalization can serve as an instrument to increase learning effectiveness while expanding access to learning resources. Utilization of digital learning platforms, online learning resources, interactive media, and systems for information education can support a more flexible learning process.

However, digital education can also create gaps if not accompanied by equal infrastructure, connectivity, and digital literacy. Haryati, Sukarno, & Purwanto (2021) show that digital infrastructure readiness is an important aspect of online learning, with varying levels of readiness across schools, leading to variations in the implementation of technology-based learning. In addition to infrastructure, teachers' digital competence is also an important factor in the successful digitalization of learning. Widhanarto, Prihatin, & Kusumawardani (2024), based on a study of 1,001 teachers in Indonesia, found a positive connection between teacher digital competence, learning strategies based on social media, and quality learning. Research also emphasizes the importance of providing facilities, training, and mentoring to help teachers use technology optimally. In line with this, Stefany & Helmi (2024) find a strong relationship between educators' digital literacy and their ability to design online learning, with a correlation coefficient of 0.765. The findings show that digital education is not enough; it needs to be supported by equal internet

access, improved teacher competency, and strengthened digital literacy. Therefore, the policy of digitalization education in Probolinggo needs to address equal access to devices and connectivity, improve teachers' digital skills through training and mentoring, and strengthen participants' digital literacy. Thus, digitalization in education is expected to narrow the gap between schools rather than serve as an instrument to expand access and improve the quality of education.

3.2. 6. Data- Based Education Governance

Policy reform in education requires a capable governance system to produce decisions grounded in real conditions. The use of data becomes important because government agencies need to know, accurately, the condition of schools, the numbers and distribution of participants in education, the needs of educators, the condition of infrastructure, as well as achievements in learning.

Planning data-driven, enabling government and units to determine priority policies in a more objective, field-realistic way. Data from the education report, for example, can be used to identify problems, analyze root causes, and determine an appropriate repair program for each educational unit. Research by Eminarni, Inayah, Maulidah, & Murniati (2025) shows that the use of the Education Report Platform can support a data-based planning process, enabling schools to determine priority programs with greater clarity. In line with this, Kurniawati, Egar, & Nurkolis (2024) find that implementation planning is data-driven through the stages of identification, indicator prioritization, reflection on root problems, and preparation of an intervention or repair program, thereby making school planning more measurable, participatory, and sustainable. Thus, the school experienced limitations in facilities and infrastructure, deficiencies in power, educators, and participants' education, as well as a need for certain interventions to address identified problems based on data. In addition to improving accuracy in determining the program and use of source power, planning data-based approaches can also strengthen transparency and accountability in management education. Dwikawati & Prasojo (2025) show that using the Education Report as a basis for compilation, planning, and budgeting in schools can help direct programs in ARKAS and reduce potential misuse of funds through monitoring mechanisms. Therefore, planning data-based not only becomes an instrument for increasing the accuracy and effectiveness of policy use of source power, but also becomes a mechanism for ensuring that the education program is arranged based on identified needs, has measurable indicators, and can be held accountable.

3.2.7. Strengthening Collaboration of Stakeholders' Interests

Education alone is not enough; therefore, policy reform cannot be left entirely to the government, schools, parents, the community, universities, the business sector, and social organizations—each must play its own role in building the educational ecosystem. Collaboration among stakeholders can expand available resources and foster innovation to support participants' education. Parents, for example, can help create a home environment conducive to learning, while the business world can support skill development, providing participants with experience and recognition in the workplace. Universities can also contribute through research, mentoring, development, innovation, and the improvement of educators' capacity and power. The importance of collaboration is supported by previous research, which shows that involving various parties in education can positively impact the development and outcomes of participants' education. Lv, Yan, & Wang (2025), in a study of 1,473 families, found that collaboration among family, school, and community has a positive, sustainable influence on participants' academic performance. In addition, research conducted by Manda, Darmayanti, & Arifin (2025) shows that cooperation between schools, families, and the community can be achieved through intensive communication, active participation by families and the community, and social and material support that strengthens the learning process. In line with these findings, the study on educational linkage in Indonesia emphasizes that partnerships among institutions of education, families, society, business and industry, government, and stakeholders are important for improving the quality and relevance of education to the needs of the world of work and society. Thus, collaboration across stakeholder interests becomes an important element in building an adaptive and responsiveeducation ecosystem to meet community needs. This collaboration enables the implementation of educational policies that focus not only on academic achievement but also on the development of students' skills, character, and readiness to meet the demands of the workforce and social change.

3.2.8. Monitoring and Evaluation Policy

The success of education reform depends heavily on consistent monitoring and evaluation. Every program needs its own indicators to evaluate its success. Evaluation is not only done to determine whether a program has been accomplished, but also to assess whether it is bringing about change in quality and equity in education. Periodic monitoring enables the government to identify obstacles early and make policy adjustments. Thus, while the education policy number remains fixed, it can be continuously updated based on evaluation results and evolving societal needs. This is one of the prerequisites for creating sustainable educational reform.

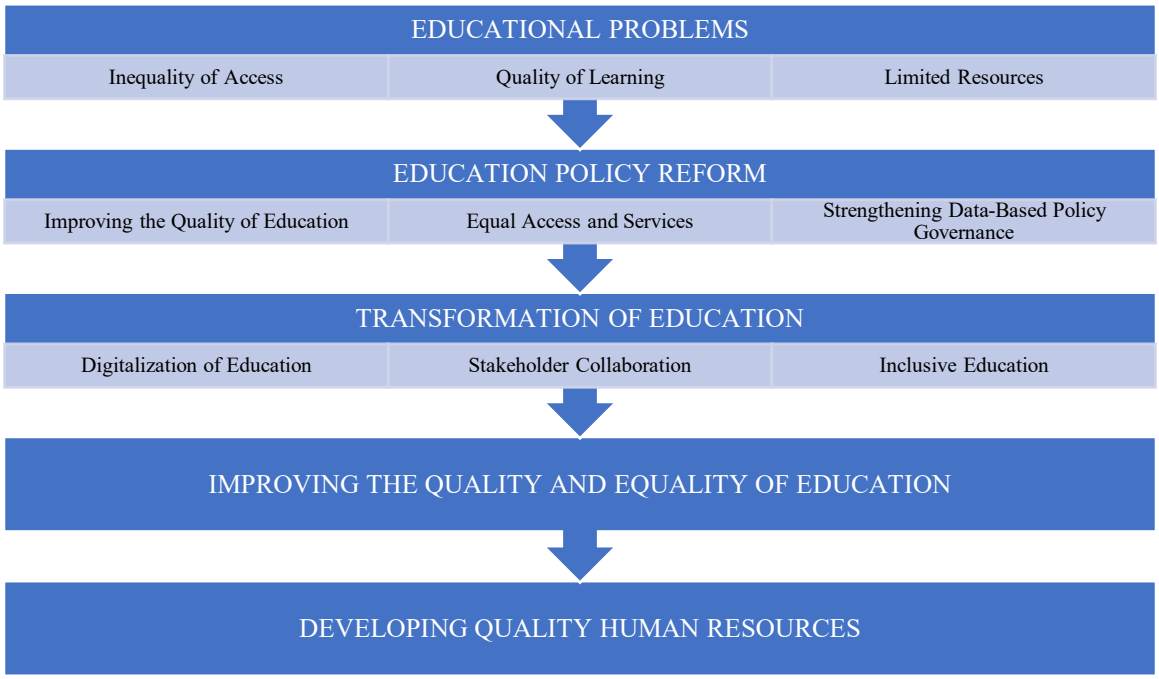


Figure 2. Education policy reform for improving the quality and equity of sustainable education in the Regency of Probolinggo

4. Conclusion

This study concludes that education policy reform in Probolinggo Regency should be implemented as an integrated, sustainable process that addresses both educational quality and equity. The main challenges include disparities in access, facilities and infrastructure, teacher distribution and competency, digital readiness, and data-based governance. Improving quality without addressing equity may widen disparities, while expanding access without ensuring service quality may not significantly improve educational outcomes. Therefore, policy reform should prioritize substantive improvements in school capacity, learning quality, resource allocation, and governance. Strengthening teacher and school leadership capacity is central to sustainable improvement. Continuous professional development, mentoring, teacher learning communities, and instructional leadership should become integral components of policy implementation. Teacher, facility, and infrastructure allocation should also be based on school and regional needs. Data-driven planning can improve targeting, transparency, accountability, and identification of educational gaps. Digital transformation provides opportunities to expand access and improve management, but requires adequate infrastructure, connectivity, and digital competencies. Sustainable reform also depends on collaboration among local government, schools, teachers, parents, communities, universities, and the business sector. Such partnerships can strengthen resources, innovation, and policy responsiveness. Continuous monitoring and evaluation are necessary to assess policy effectiveness. Future research should use longitudinal and comparative approaches to evaluate reforms and develop measurable indicators for teacher development, needs-

based resource allocation, inclusive digitalization, data-driven governance, and stakeholder collaboration.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article. The research was conducted independently, and no personal, financial, institutional, or professional interests influenced the research design, data collection, analysis, interpretation of findings, or preparation of the manuscript. All authors have reviewed and approved the final version of the manuscript and agree to be accountable for its content.

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