SCHOOL-BASED MANAGEMENT IN ELEMENTARY SCHOOL



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Preface

Praise and gratitude to God Almighty for His grace and blessings, which have enabled the completion of this textbook, "School-Based Management in Elementary Schools." This book has been prepared as a learning resource for students of the Elementary School Teacher Education (PGSD) Program to understand the concepts and practices of school management in a systematic, participatory, transparent, accountable, and quality-oriented manner.

School-Based Management (SBM) is an educational management approach that provides schools with greater authority to optimize resources according to their needs, characteristics, and potential. In the context of elementary education, SBM plays a strategic role because the success of educational provision is determined not only by classroom learning processes but also by the quality of planning, leadership, human resource management, curriculum management, facilities and infrastructure, financing, partnerships, and the quality culture developed within the school.

This textbook is designed to help students understand SBM not only at the conceptual level but also by connecting it with actual practices in elementary school management. The discussion focuses on the relationship between data-based planning, school leadership, participatory decision-making, quality culture development, digitalization of school management, and monitoring and evaluation as integral components of continuous quality improvement.

In line with developments in the educational paradigm, this book also integrates the perspective of Outcome-Based Education (OBE) in understanding school management. Management is not merely focused on fulfilling inputs and implementing programs but also on achieving educational processes and outcomes that have a meaningful

impact on student development. Therefore, every school policy and program is expected to have clear objectives, success indicators, measurement mechanisms, and follow-up actions.

The strengthening of a quality culture in this book is also associated with the principles of the Internal Quality Assurance System (SPMI) through the PPEPP cycle (Determination, Implementation, Evaluation, Control, and Improvement). This approach is important for establishing a school management system that does not stop at program implementation but continues with evidence-based evaluation, control of nonconformities, and continuous quality improvement. Through this approach, SBM is expected to develop into an adaptive management system oriented toward continuous improvement.

The development of technology and digital transformation is also an important component of elementary school management. Digitalization enables schools to improve the effectiveness of data management, communication, documentation, decision-making, monitoring, and reporting. Therefore, prospective elementary school teachers need to understand that professional competence is not limited to pedagogical and instructional abilities but also includes an understanding of school governance and organizational culture.

This book is expected to serve as a reference for PGSD students, lecturers, teachers, principals, school supervisors, education personnel, and education practitioners in understanding and developing School-Based Management practices. For students, this book is expected to serve as a bridge between educational management theory and the realities of elementary school management, thereby developing their critical, analytical, collaborative, and reflective thinking skills in addressing various educational challenges.

The author realizes that this book still has limitations, both in the breadth of its discussion and in the practical examples presented. Therefore, constructive criticism, suggestions, and feedback from various parties are highly welcomed as part of the process of improving this book.

Finally, the author hopes that "School-Based Management in Elementary Schools" will contribute to the development of knowledge and competencies among prospective teachers and education practitioners in establishing school governance that is quality-oriented, participatory, transparent, accountable, data-driven, adaptive to technological developments, and focused on students' needs and success.

May this book contribute to strengthening a culture of quality and improving the quality of elementary education.

Jakarta, 2026

The Author

Chapter 1
Regional Autonomy Policy, Decentralization of Education and National Education Policy

1.1 Introduction

Education is a strategic sector in national development, playing a crucial role in improving the quality of human resources, strengthening national competitiveness, and realizing social welfare. To achieve these goals, education requires effective, adaptive governance oriented toward continuous quality improvement. One fundamental change in Indonesia's post-reform governance system is the implementation of regional autonomy policies through government decentralization. This policy grants regional governments broader authority to regulate and manage various government affairs, including education, in accordance with the potential, needs, and characteristics of each region.

The implementation of educational decentralization is a logical consequence of regional autonomy policies. Through decentralization, some authority previously held by the central government is transferred to local governments and educational units to make decision-making processes more effective, efficient, participatory, and responsive to community needs. Decentralization is also expected to encourage innovation in education management, increase equitable access, strengthen public accountability, and accelerate improvements in the quality of education services. However, the implementation of decentralization faces various challenges, such as differences in local government capacity, resource imbalances, disparities in education quality between regions, and the need for strong coordination between the central and regional governments.

On the other hand, the central government remains responsible for formulating national education policies as the foundation for education delivery throughout Indonesia. National education policies serve to maintain the unity of the education system by establishing national education objectives, National Education Standards, curricula, quality assurance systems, and various regulations that serve as references for all stakeholders. Therefore, the relationship between national policies and the implementation of regional autonomy must be synergistic, ensuring that the flexibility of education management in the regions remains within the framework of national education objectives, as mandated by Law Number 20 of 2003 concerning the National Education System.

In line with global developments, advances in information technology, digital transformation, and the demands of 21st-century competencies, education policy in Indonesia continues to undergo adjustments. The government is striving to encourage more adaptive policies by strengthening education governance, improving educator competency, digitizing learning, strengthening character education, and implementing a student-centered curriculum. In this context, synergy between the central government, regional governments, educational institutions, the business and industry sectors, and the community is a crucial factor in creating a quality, inclusive, equitable, and sustainable education ecosystem.

This chapter comprehensively discusses the concepts of regional autonomy policy, educational decentralization, and national education policy, covering the legal basis, objectives, principles, division of authority, implementation, benefits, challenges, and the interrelationships of these three concepts in supporting the provision of quality education. This discussion is expected to provide a comprehensive understanding of the dynamics of education policy in

Indonesia as a foundation for developing an education system capable of meeting the needs of society and the challenges of future development.

1.2 Regional Autonomy Policy

1.2.1 Definition of Regional Autonomy

Regional autonomy is the right, authority, and obligation of local governments to regulate and manage their own government affairs in accordance with statutory provisions. The implementation of regional autonomy aims to improve the quality of public services, accelerate regional development, enhance community welfare, and strengthen community participation in development.

In the field of education, regional autonomy gives authority to local governments to:

1) Manage the provision of education according to its authority
2) Planning regional education needs
3) Allocating education budget through APBD
4) Improving the quality of educators and education personnel
5) Developing educational innovations based on local needs.

The application of regional autonomy in education is a form of government decentralization that grants local governments the authority to manage educational affairs according to the characteristics, needs, and potential of their respective regions. This policy aims to increase the effectiveness of education delivery by bringing decision-making closer to the community, thus making education services more responsive, efficient, and accountable.(Ananda, 2019)

The authority of regional governments to manage education demonstrates a division of responsibilities between the central and regional governments. Regional governments have the authority to

regulate the implementation of primary and secondary education, including the management of educational units, the provision of facilities and infrastructure, and the oversight of the implementation of educational policies. This allows each region to adapt education policies to local social, cultural, economic, and geographic needs.(Mulyasa, 2023)

Planning regional education needs is a crucial aspect in achieving equitable access and improving the quality of education. Through a comprehensive needs analysis, local governments can determine educational development priorities, from equal teacher distribution and the construction of educational facilities to providing educational services for remote areas and communities with special needs. Data-driven planning also supports more targeted decision-making.(Sallis, 2015)

The authority to allocate education funds through the Regional Budget (APBD) provides local governments with flexibility to finance priority programs tailored to local needs. Effective and transparent budget management enables improvements in the quality of education services, the provision of learning facilities, the development of educational technology, and the provision of assistance to students in need. However, the success of this policy is heavily influenced by the capacity of regional financial governance and accountability in its management.(Tilaar, 2016)

Improving the quality of educators and education personnel is a strategic factor in the success of educational autonomy. Local governments have a responsibility to facilitate teacher professional development through continuing education and training, academic supervision, and career development. Investment in improving teacher competency will directly impact the quality of the learning process and student learning outcomes.(UNESCO, 2021)

Furthermore, regional autonomy provides opportunities for local governments to develop educational innovations based on local needs. These innovations can include developing local content, incorporating regional culture-based learning, utilizing environmental potential as a learning resource, or integrating digital technology tailored to regional conditions. This approach not only increases the relevance of learning but also strengthens cultural identity and encourages community participation in education delivery.

Overall, regional autonomy in education provides local governments with the opportunity to improve the quality of education services through more independent management, regionally-based planning, effective budget allocation, human resource development, and contextual learning innovation. However, successful implementation still requires synergy between the central and local governments, good governance capacity, and an accountable monitoring system to ensure the sustainable achievement of the goals of equitable distribution and quality improvement in national education.

1.2.2 Objectives of Regional Autonomy

The main objectives of regional autonomy policy include:

1) Improving the effectiveness of public services
2) Accelerating regional development
3) Improving the quality of local democracy
4) Optimizing regional potential
5) Improving community welfare through educational services that are closer to community needs.

The primary objective of regional autonomy policy, as stipulated in Law Number 23 of 2014, is to improve the quality of regional governance by granting broader authority to local

governments to regulate and manage community interests in accordance with the characteristics and potential of their regions. The five stated objectives demonstrate that regional autonomy is not solely oriented toward administrative aspects, but also toward improving the quality of public services, development, democracy, and community welfare.(Faguet, 2014)

First, increasing the effectiveness of public services is a key indicator of the success of regional autonomy. With greater authority, local governments have the flexibility to design policies that are more responsive to the needs of local communities. This allows services to be faster, more efficient, and more tailored to the social, economic, and cultural conditions of the region. In education, for example, local governments can develop programs relevant to student characteristics and regional needs.(Hidayat, 2017)

Second, accelerated regional development is a consequence of increased regional government independence in managing their resources. Decentralization encourages regions to be more innovative in developing development plans, optimizing local economic potential, and enhancing regional competitiveness. Development success is greatly influenced by local government capacity in governance, transparency, and accountability.(Ministry of Education, 2022)

Third, improvements in the quality of local democracy are reflected in broader community participation in the planning, implementation, and evaluation of public policy. Regional autonomy provides opportunities for community involvement in decision-making through development deliberation mechanisms, public oversight, and more transparent governance. This reinforces the principle of good governance, which places communities as a vital part of regional development.(Republic of Indonesia, 2014)

Fourth, optimizing regional potential is one of the strategic objectives of decentralization. Each region has distinct natural resources, human resources, culture, and economic characteristics. Therefore, autonomy policies enable regional governments to develop comparative and competitive advantages based on their respective potentials, thereby increasing regional revenues and strengthening sustainable development.(Smith, 1985)

Fifth, improving public welfare through educational services that are more closely aligned with community needs demonstrates that education is a key instrument of regional development. Regional governments have the authority to improve access, equity, quality, and relevance of education through the management of educational units, teacher competency development, provision of infrastructure, and learning innovations tailored to local needs. Thus, regional education policies are expected to produce high-quality and competitive human resources.

Overall, these objectives are interrelated and form a regional development framework oriented toward public services, community empowerment, and improving the quality of life. However, the successful implementation of regional autonomy remains dependent on the institutional capacity of local governments, the quality of leadership, good governance, and synergy between the central government, local governments, and communities.

1.2.3 Principles of Regional Autonomy

The implementation of regional autonomy is based on several principles, namely:

1) Democracy
2) Equality
3) Justice

4) Efficiency
5) Effectiveness
6) Accountability
7) Transparency
8) Community participation.

The implementation of regional autonomy is the implementation of a decentralization system that grants regional governments the authority to regulate and manage government affairs according to the needs and characteristics of their regions. The success of regional autonomy implementation is determined not only by the delegation of authority, but also by the application of the principles of good governance, namely democracy, equality, justice, efficiency, effectiveness, accountability, transparency, and public participation.(Cheema, 2007)

Principles of democracy Positioning communities as subjects of development through decision-making mechanisms that involve public aspirations. Local democracy strengthens the legitimacy of local government policies and encourages the creation of governance that is responsive to community needs. In the context of regional autonomy, democracy is also realized through direct elections of regional heads and the strengthening of regional representative institutions.

The principle of equality The aim is to reduce development disparities between regions and between community groups. Regional governments are expected to distribute resources, public services, and development proportionally so that the benefits of development can be felt by all. Equity is one indicator of the success of decentralization in improving community welfare.

The principle of justice emphasizes the provision of equal rights and public services without discrimination. Regional governments

must ensure that every citizen has equal access to education, health care, infrastructure, and administrative services in accordance with statutory provisions. Justice is the foundation for inclusive and sustainable development.

Furthermore, principles of efficiency and effectiveness Efficiency relates to the ability of local governments to optimally manage resources to achieve development goals. Efficiency indicates the efficient use of budget, personnel, and time, while effectiveness indicates the level of success in achieving development targets. These two principles form the basis for improving the quality of public services and the performance of regional bureaucracy.(Osborne, 1992)

Principle of accountability Requires local governments to be accountable for all policies, programs, and budget allocations to the public and oversight bodies. Accountability encourages professional governance, free from abuse of authority, and results-oriented.

Meanwhile, transparency principle demands transparency of public information so that the public has access to the planning, implementation, and evaluation processes of regional policies. Transparency increases public trust while strengthening public oversight mechanisms for governance.(Widjaja, 2018)

Final, principle of community participation affirms that the community has the right to be involved in every stage of regional development, from planning, implementation, to program evaluation. Active community participation results in policies that are more suited to local needs, increasing a sense of ownership and strengthen the sustainability of development programs.(World Bank, 1994)

Thus, these eight principles complement each other in realizing democratic, effective, transparent, and accountable regional governance. The implementation of these principles is expected to improve the quality of public services, accelerate regional

development, reduce social disparities, and enhance public welfare, all of which are the primary goals of regional autonomy.

1.3 Decentralization of Education

1.3.1 Definition of Educational Decentralization

Educational decentralization is the delegation of authority for education management from the central government to regional governments and educational units to improve the quality of educational services. This concept positions schools as the center of quality development through more flexible decision-making tailored to local conditions.

Educational decentralization is a strategic policy in education administration that aims to bring decision-making closer to those who best understand the needs of the community, namely local governments and educational institutions. The delegation of authority from the central government to local governments is not only administrative but also encompasses aspects of planning, resource management, curriculum development according to local characteristics, funding management, and improving the quality of educational services. This policy aligns with the principle of regional autonomy, which provides space for regions to develop their educational potential based on their respective social, cultural, economic, and geographic conditions.(Fattah, 2017)

The concept of educational decentralization places schools as the center of quality development (school-based improvement). From a perspective School-Based Management (SBM) Schools are given the flexibility to develop programs, manage resources, and make decisions in a participatory manner, involving the principal, teachers, school committee, parents, and the community. This flexibility enables schools to design more contextual learning innovations, thereby

improving the effectiveness of the educational process and student learning outcomes.(Caldwell, 2013)

Furthermore, flexibility in decision-making allows schools to respond quickly to local challenges without having to wait for centralized policies. For example, schools in coastal areas can develop local maritime-based content, while schools in agricultural areas can integrate learning relevant to local agricultural potential. This way, education becomes more adaptive to community needs while supporting regional development.(Mulyasa, 2022)

However, the implementation of educational decentralization also faces various challenges. Disparities in local government capacity, school leadership quality, human resource competency, and funding disparities can contribute to unequal distribution of education services across regions. Therefore, the central government remains crucial in establishing national education standards, providing guidance, supervision, and evaluation to ensure national education quality is maintained.(Rohiat, 2021)

In the context of Indonesian education policy, educational decentralization is expected to create more democratic, accountable, transparent, and responsive education governance to community needs. Its successful implementation depends heavily on synergy between the central government, regional governments, schools, and all stakeholders in implementing the principles of good education governance. *Good educational governance*).

Decentralization of education is a strategy to improve the quality of educational services by delegating authority to local governments and educational units. This flexibility in management allows schools to develop programs tailored to local characteristics, making the learning process more effective, relevant, and meaningful. However, its success requires the support of institutional capacity,

effective leadership, adequate funding, and a central government guidance and oversight system to ensure equity and quality of education.

1.3.2 Objectives of Educational Decentralization

Decentralization of education aims to:

1) Improving the quality of education
2) Expanding access to education
3) Improving the efficiency of education management
4) Strengthening public accountability
5) Increasing community participation
6) Encouraging regional educational innovation.

Educational decentralization is a policy that grants regional governments the authority to manage education delivery according to the characteristics, needs, and potential of their regions, while adhering to national education standards. This policy aims to create a more responsive, effective, and efficient education system, oriented toward improving the quality of education services.

The first goal, improve the quality of education, demonstrating that regional authority allows for the development of programs that better align with student needs and local conditions. Local governments have flexibility in allocating resources, improving educator competency, and developing relevant learning programs. Thus, quality improvement is measured not only by academic achievement but also by the overall quality of the learning process and educational services.

The second goal, expanding access to education, emphasizes the importance of equal access to educational services for all. Through decentralization, local governments can identify areas that still experience limited access due to geographic, social, and economic

factors, then design more targeted policies. This supports the realization of the principles of justice and equity in education.

The third goal, improve the efficiency of education management, related to the ability of local governments to manage budgets, infrastructure, and human resources more effectively. Decision-making that is more closely aligned with community needs allows for faster planning, implementation, and evaluation of education programs and reduces the bureaucratic hurdles often encountered in centralized systems.

Furthermore, strengthening public accountability is one of the key objectives of decentralization. The authority held by local governments must be balanced with responsibility to the community through transparent governance, open reporting, and ongoing performance evaluation. This accountability fosters public trust in the provision of education while ensuring the responsible use of resources.

The next goal is increasing community participation Decentralization provides greater space for parents, school committees, businesses, community organizations, and other stakeholders to contribute to the planning, implementation, monitoring, and evaluation of education. This participation strengthens the concept of school-based management, which positions the community as a strategic partner in improving the quality of education.

Final, encouraging regional educational innovation The autonomy granted to regional governments opens up opportunities to develop various innovations tailored to local characteristics, such as developing local content curricula, utilizing digital technology, contextual learning models, and even partnering with various institutions. These innovations enable each region to develop best

practices that can be replicated by other regions, thereby supporting the sustainable improvement of national education quality.

Overall, the goal of educational decentralization is not only oriented towards the distribution of administrative authority, but also towards improving the quality of education governance through equitable access, management efficiency, public accountability, community participation, and the development of regional innovation. Its successful implementation depends heavily on the capacity of local governments, the quality of educational leadership, the availability of resources, and the synergy between the central government, local governments, schools, and communities.

1.3.3 Forms of Educational Decentralization

The implementation of educational decentralization is realized through the following forms:

1) Administrative Decentralization: Delegation of authority for managing educational administration to regional governments.
2) Fiscal Decentralization: Granting authority to manage education budgets through the regional budget and various central government transfer mechanisms.
3) Academic Decentralization: Providing space for schools to develop learning according to student characteristics while still adhering to national standards.
4) School-Based Management (SBM); Schools are given greater authority in managing resources, developing school programs, and improving the quality of education.

The implementation of educational decentralization is a policy aimed at redistributing some of the authority for education management from the central government to regional governments

and educational units. This policy is based on the principle that decision-making will be more effective if carried out by parties who better understand the needs, characteristics, and potential of each region. In practice, educational decentralization is realized through four main forms: administrative decentralization, fiscal decentralization, academic decentralization, and School-Based Management (SBM).(Fattah, 2019)

Administrative decentralization granting authority to local governments to manage various aspects of educational administration, such as program planning, management of educational personnel, educational services, and supervision of educational implementation. This delegation of authority is expected to increase bureaucratic effectiveness, accelerate the decision-making process, and produce policies that are more responsive to the needs of local communities. However, the success of administrative decentralization is greatly influenced by institutional capacity, the quality of human resources, and accountable local governance.

Fiscal decentralization This grants regional governments the authority to manage education funding through the Regional Budget (APBD), General Allocation Fund (DAU), Special Allocation Fund (DAK), and various central government transfer mechanisms. Financial management that is more closely aligned with regional needs allows for more efficient and targeted budget allocation. However, disparities in fiscal capacity between regions remain a challenge that can impact the equitable distribution of education quality. Therefore, oversight mechanisms, transparency, and accountability in budget management are crucial factors in achieving effective fiscal decentralization.

Academic decentralization provides schools and teachers with the flexibility to develop learning processes tailored to student

characteristics, regional potential, local culture, and scientific and technological developments, without neglecting National Education Standards. This policy aligns with the Independent Curriculum paradigm, which positions schools as the center of learning innovation. This flexibility allows teachers to implement various contextual, differentiated learning approaches oriented toward developing 21st-century competencies. However, implementing academic decentralization requires improving teacher competency to design high-quality and relevant learning.(Suhardan, 2021)

Furthermore, School-Based Management (SBM) is a concrete form of decentralization that grants schools greater autonomy in managing human resources, finances, infrastructure, developing work programs, and making strategic decisions. School-Based Management (SBM) encourages the active involvement of principals, teachers, education staff, school committees, parents, and the community in continuously improving the quality of education. The success of SBM is determined not only by the extent of the authority granted, but also by the quality of the principal's leadership, organizational culture, community participation, and an effective evaluation and accountability system.(World Bank, 2018)

Overall, these four forms of decentralization complement each other in building more effective, efficient, and democratic education governance, oriented toward improving the quality of education services. The implementation of decentralization not only transfers authority from the central government to the regions but also requires increased institutional capacity, strengthened oversight systems, and the development of the competencies of all education stakeholders. Thus, educational decentralization can be a strategic instrument for achieving equitable access, improving quality, and creating education that meets the needs of communities in various regions.

1.3.4 Government Authority in Education

The division of educational authority in Indonesia includes:

1) Central Government: Establishes national education policies, establishes national education standards, establishes national curricula, implements national education evaluations, and develops education quality assurance systems.
2) Provincial Government; manages secondary education and special education in accordance with the division of authority in statutory regulations
3) Regency/City Governments manage early childhood education, basic education, non-formal education, and support improvements in the quality of educational services within their respective jurisdictions.

The division of educational authority in Indonesia is an implementation of the principle of decentralization, which aims to create effective, efficient, and responsive education governance to the needs of communities in various regions. This authority regulation is based on Law Number 23 of 2014 concerning Regional Government, which divides responsibility for education management between the central government, provincial governments, and district/city governments according to their respective functions and capacities.(Fauzan, 2021)

The central government has strategic authority in determining the direction of national education policy. This authority includes formulating national education policy, establishing National Education Standards (SNP), developing the national curriculum, implementing national education evaluations, and developing an education quality assurance system. This role is crucial to ensuring equality in education quality throughout Indonesia, so that every

student receives education services that meet national standards. Through this authority, the central government also ensures that education delivery remains aligned with the national education goals as mandated by Law Number 20 of 2003 concerning the National Education System.

Meanwhile, provincial governments play a role in managing secondary and special education. This division of authority aims to improve effective coordination between districts/cities, particularly in ensuring equitable access to secondary education, providing teaching staff, managing facilities and infrastructure, and financing education. Provincial governments serve as a liaison between national policies and implementation at the regional level, enabling a more coordinated implementation of various education programs.

At the district/city level, authority is focused on the management of early childhood education (PAUD), basic education, and non-formal education. District/city governments maintain close ties with the community, enabling them to better understand local needs in education delivery. This allows local governments to innovate in education services, ensure equitable access to schools, improve teacher competency, provide educational facilities, and strengthen partnerships with the community. This flexibility supports improvements in the quality of education services that are aligned with the social, cultural, and geographic characteristics of the region.(Usman, 2019)

Although the division of authority has been clearly regulated, its implementation still faces several challenges, such as disparities in fiscal capacity between regions, differences in the quality of human resources, suboptimal intergovernmental coordination, and disparities in education quality. Therefore, the success of education decentralization depends not only on the division of authority but also

requires intergovernmental synergy, strengthening quality assurance systems, increasing the capacity of local governments, and continuous policy evaluation. This way, the goals of equalizing access and improving the quality of national education can be achieved more effectively.

1.3.5 Benefits of Educational Decentralization

The implementation of educational decentralization provides various benefits, including:

1) Faster educational decisions
2) Programs more suited to regional needs
3) Increasing school innovation
4) Increased community participation
5) Increasing accountability in the implementation of education.

The implementation of educational decentralization is a policy that grants authority to regional governments and educational units to manage various aspects of education according to regional characteristics, needs, and potential. This policy aims to improve the effectiveness of educational governance through a more proportional division of authority between the central and regional governments. In its implementation, educational decentralization provides several strategic benefits for improving the quality of education services.

First, educational decisions become faster This is because the decision-making process is carried out closer to educational units and communities. Local governments have the flexibility to establish operational policies without having to wait for decisions from the central government, allowing various educational issues to be addressed more responsively. This is in line with the principle of

decentralization, which emphasizes administrative efficiency and accelerated public service delivery.

Second, educational programs become more suited to regional needs Each region has distinct social, cultural, economic, and geographic characteristics, necessitating a distinct policy approach. Through decentralization, local governments can develop education programs relevant to community needs, local potential, and regional development. This approach supports equitable education quality while strengthening the implementation of a contextual curriculum.

Third, increasing school innovation This is a positive impact of increased autonomy for educational units. Schools have greater room to develop various innovations in learning, curriculum management, technology utilization, and school culture development. This autonomy encourages the creativity of principals and teachers in creating effective learning strategies tailored to student needs.

Fourth, community participation in the provision of education increases Decentralization provides opportunities for parents, school committees, businesses, community organizations, and various stakeholders to cont ribute to the planning, implementation, monitoring, and evaluation of education programs. This collaboration strengthens democratic, transparent, and community-oriented education governance.

Fifth, accountability in the provision of education is increasing With a clear division of authority, local governments and schools have greater responsibility for achieving educational quality. Accountability is realized through performance reporting, transparent budget management, regular program evaluations, and the implementation of an Internal Quality Assurance System (SPMI). This mechanism encourages the effective and efficient use of educational resources, thereby sustainably improving the quality of educational services.

Overall, the success of educational decentralization depends not only on the delegation of authority but also on the capacity of local governments, the competence of human resources, educational leadership, budget availability, and an effective oversight system. Therefore, synergy between the central government, local governments, educational units, and the community is crucial in realizing quality, adaptive, and equitable education governance.(Sallis, 2014)

Decentralization of education offers significant benefits in increasing the effectiveness of education delivery through accelerated decision-making, program development tailored to regional needs, increased school innovation, strengthened community participation, and enhanced accountability in education management. However, its successful implementation requires institutional capacity, strong leadership, a quality assurance system, and collaboration among stakeholders to optimally achieve the goal of improving education quality.

1.3.6 Challenges of Educational Decentralization

Some of the challenges still faced include:

1) Inequality of local government capacity
2) Disparities in the quality of education between regions
3) Limited human resources
4) Differences in regional fiscal capacity
5) Coordination between the central and regional governments is not yet optimal.

The implementation of educational decentralization in Indonesia has given regional governments greater authority in managing education delivery. However, its implementation still faces several challenges that impact the effectiveness of equity and

improving the quality of education. One of the main challenges is imbalance in local government capacity Not all regions have the same capabilities in education planning, governance, budgeting, and oversight. This difference in institutional capacity leads to uneven implementation of education policies, which impacts the achievement of National Education Standards.(Aspinall, 2019)

Besides that, disparity in the quality of education between regions remains a significant issue. Urban areas generally have better access to infrastructure, qualified teaching staff, technology, and learning resources than underdeveloped, frontier, and outermost (3T) regions. This situation results in disparities in student learning outcomes and low equity in quality education services.(Fitria, 2023)

The next challenge is limited human resources (HR), both at the education management and teaching staff levels. The competence of local government officials in formulating policies, conducting data-driven planning, and evaluating education programs still varies. Similarly, teacher competence in implementing innovative learning and utilizing technology is uneven. This situation poses an obstacle to realizing effective and adaptive education governance.

From the financing aspect, differences in regional fiscal capacity also influences the quality of education delivery. Regions with high local revenue (PAD) have a greater opportunity to improve the quality of education services through the provision of facilities, improving teacher competency, and developing learning innovations. Conversely, regions with limited fiscal capacity remain heavily dependent on budget transfers from the central government, thus limiting their room for development of education programs.

Furthermore, coordination between the central government and regional governments is not yet optimal This often leads to differing policy interpretations, overlapping authority, and delays in the

implementation of education programs. However, successful education decentralization requires strong synergy through communication, clear role allocation, an integrated monitoring and evaluation system, and strengthened collaboration-based governance.(Widodo, 2021)

Overall, these challenges demonstrate that the success of educational decentralization depends not only on the division of authority but also on strengthening institutional capacity, equitable distribution of resources, improving human resource competency, equitable funding support, and effective coordination between the central and regional governments. These efforts are crucial for realizing a quality, inclusive, and equitable national education system in line with Indonesia's educational development goals.

1.4 National Education Policy

1.4.1 Definition of National Education Policy

National education policy is all policies formulated by the government as guidelines for the implementation of national education to achieve educational goals as mandated in the constitution and laws and regulations.

National education policy is a set of directions, strategies, and regulations formulated by the government to serve as guidelines for the implementation of the education system in Indonesia. This statement emphasizes that education policy functions not only as an administrative regulation, but also as a strategic instrument in realizing the national education goals as stated in the 1945 Constitution of the Republic of Indonesia and laws and regulations in the field of education. Therefore, every policy established must align with national ideals to educate the nation, shape the character of students, and improve the quality of competitive human resources.

From an educational management perspective, national education policy serves as a foundation for all stakeholders, from the central government and regional governments, educational institutions, and educators, in carrying out their educational planning, implementation, supervision, and evaluation functions. This policy is implemented in various ways, such as establishing national education standards, developing curricula, developing assessment systems, improving educator competency, ensuring equal access to education, and ensuring educational quality. Therefore, the effectiveness of education delivery depends heavily on the consistency of policy implementation across all levels of government and educational institutions.

Furthermore, national education policy must be able to adapt to the dynamics of developments in science, technology, social issues, and the economy, as well as the needs of the workplace. Policy changes, such as the implementation of the Independent Curriculum, strengthening the Pancasila Student Profile, digitizing learning, and transforming the education quality assurance system, are examples of the government's response to the challenges of 21st-century education. Adaptive policies enable the education system to produce graduates with academic competencies, critical thinking skills, creativity, collaboration, communication skills, and character traits that align with the needs of global society.

From a public policy perspective, the success of education policy is determined not only by the quality of its formulation, but also by the effectiveness of implementation, inter-institutional coordination, resource availability, and community participation. As stated by(Anderson, 2015)Public policy is a series of actions designed to resolve public problems through a continuous process of formulation, implementation, and evaluation. Therefore, periodic

evaluation of the implementation of education policy is essential to ensure that national education goals are achieved effectively, efficiently, and sustainably.(Dunn, 2018)

Overall, the national education policy is a fundamental instrument in guiding Indonesia's educational development. This policy serves not only as the legal basis for education administration but also as a strategic guideline for improving education quality, expanding access to quality educational services, achieving equal learning opportunities, and producing superior human resources with character and the ability to face global challenges.

1.4.2 Basis of National Education Policy

The basis of national education policy includes:

1) Article 31 of the 1945 Constitution of the Republic of Indonesia
2) Law Number 20 of 2003 concerning the National Education System
3) Law Number 23 of 2014 concerning Regional Government and its amendments
4) Various government regulations and ministerial regulations in the field of education.

The foundation of national education policy in Indonesia is the legal basis that guides the implementation of education so that it aligns with national goals as mandated by the constitution. The existence of these various regulations demonstrates that the Indonesian education system is built on the principle of a state based on the rule of law, ensuring that every policy, program, and implementation of education must have clear legal legitimacy. Furthermore, this legal basis serves as a guideline for the central government, regional governments, educational institutions,

educators, and all stakeholders in carrying out their duties and responsibilities.

Article 31 of the 1945 Constitution of the Republic of Indonesia serves as the constitutional basis, affirming that every citizen has the right to education and that the government is obligated to organize a national education system that enhances faith, piety, noble character, and enhances the nation's intelligence. This provision also mandates an education budget allocation of at least 20% of the national and regional budgets, reflecting the state's commitment to equal access and improving the quality of education.

Furthermore, Law Number 20 of 2003 concerning the National Education System is the primary regulation governing the objectives, functions, principles of implementation, national education standards, the rights and obligations of students and educators, and the division of government and community roles in the implementation of education. This law serves as a reference in curriculum development, quality assurance, education governance, and the implementation of education evaluation at all levels.

Meanwhile, Law Number 23 of 2014 concerning Regional Government provides the legal basis for the division of government affairs, including education, between the central government, provincial governments, and district/city governments. This policy implements educational decentralization, aiming to improve the effectiveness of public services through a more proportional distribution of authority based on regional characteristics and needs. This provides regional governments with the opportunity to develop education services that are more responsive to local conditions without compromising established national standards.

In addition to these three regulations, various Government Regulations and Ministerial Regulations serve as operational

regulations outlining the implementation of national education policies. These regulations cover curriculum management, national education standards, assessment, accreditation, quality assurance, teacher competency, and educational unit governance. These regulations enable the education system to adapt to developments in science, technology, societal needs, and the dynamics of national policy.

Overall, the foundation of national education policy forms a complementary regulatory system between the constitution, laws, and implementing regulations. This synergy between regulations is a crucial foundation for realizing quality, equitable, inclusive, and sustainable education. In the era of decentralization, the success of education policy implementation is determined not only by the strength of regulations but also by the capacity of government governance, stakeholder commitment, and the effectiveness of the quality assurance system in ensuring the achievement of national education goals.

1.4.3 Objectives of National Education Policy

National education policy aims to:

1) Enlightening the life of the nation
2) To form Indonesian people who are faithful, pious, have good morals, are healthy, capable, creative, independent, democratic and responsible.
3) Improving equal access to education
4) Improving the quality of education
5) Improving the competitiveness of Indonesian human resources.

The national education policy is the strategic foundation for the implementation of the Indonesian education system. The policy's

objectives are not only oriented towards improving academic aspects, but also towards character development, equalizing learning opportunities, improving educational quality, and strengthening the competitiveness of human resources at the national and global levels. These five objectives are interrelated and form the basis for formulating various education policies, including the implementation of the Independent Curriculum, strengthening the Pancasila Student Profile, and improving the quality of teaching staff and education governance.

The first goal, namely enlightening the nation's life, is a constitutional mandate stated in the Preamble to the 1945 Constitution of the Republic of Indonesia. The meaning of enlightening the nation's life is not only limited to increasing intellectual abilities, but also includes the development of critical thinking skills, problem solving, creativity, and the ability to adapt to social, economic, and technological changes. Education is a primary instrument in building a knowledgeable society capable of contributing to national development.

The second goal, namely to form Indonesian people who are faithful, pious to God Almighty, have noble morals, are healthy, capable, creative, independent, democratic and responsible, demonstrates that national education places character building as an integral part of the learning process. Education is aimed at producing graduates who possess a balance between academic competence, 21st-century skills, and moral values. This approach aligns with the strengthening of character education and the implementation of the Pancasila Student Profile, which emphasizes religiosity, mutual cooperation, independence, creativity, critical thinking, and global diversity.

The third goal, namely , affirms the government's commitment to providing equitable learning opportunities for all citizens, regardless of social, economic, geographic, or cultural background. Equitable access is achieved through the provision of educational facilities and infrastructure, expansion of educational services, educational finanincreasing equal access to educationcial assistance, digital transformation, and strengthening education in underdeveloped, frontier, and outermost (3T) regions. Equitable access is a crucial prerequisite for reducing educational disparities between regions and improving social justice.(Banks, 2020)

Furthermore, improving the quality of education is a primary focus of national education policy. The quality of education is influenced by various components, such as teacher competence, curriculum, school leadership, learning processes, assessment systems, quality culture, and the availability of facilities and infrastructure. Therefore, improving quality requires a comprehensive approach through strengthening the Internal Quality Assurance System (SPMI), enhancing educator professionalism, utilizing digital technology, and continuously evaluating learning outcomes. Good quality education will produce graduates with competencies that meet the needs of society and the workplace.(Full, 2020)

The final goal is increasing the competitiveness of Indonesian human resources In the era of globalization and digital transformation, education is required to produce graduates with competencies in literacy, numera cy, digital skills, communication, collaboration, creativity, innovation, and lifelong learning. Improving human resource competitiveness is a crucial factor in supporting knowledge-based economic development and enhancing Indonesia's position in global competition. Therefore, national education policies must continuously adapt to developments in science, technology, and

the needs of the workplace to produce a productive, innovative, and character-driven generation.(Schleicher, 2019)

Overall, the objectives of the national education policy demonstrate that education in Indonesia has a comprehensive orientation, namely developing the quality of the whole person through strengthening character, equalizing learning opportunities, improving the quality of education delivery, and developing competencies relevant to the challenges of the 21st century. Successfully achieving these objectives requires synergy between the government, educational institutions, educators, students, families, and the community so that education truly becomes a strategic instrument in realizing sustainable national development.

1.4.4 Characteristics of National Education Policy

Characteristics of national education policy include:

1) Constitution-based
2) Oriented towards quality of education
3) Ensuring equal distribution of education services
4) Supporting the development of 21st century competencies
5) Strengthening character education
6) Supporting the digital transformation of Education.

The characteristics of national education policy reflect the strategic direction of Indonesian education development, grounded in constitutional values, societal needs, and global challenges. These six characteristics are interconnected in realizing a quality, inclusive, adaptive, and sustainable education system.

First, it is constitutionally based. National education policy is formulated based on the mandate of the 1945 Constitution of the Republic of Indonesia, specifically Article 31, which affirms that every citizen has the right to education. This constitutional basis serves as

the basis for the development of various educational regulations, ensuring that each policy has strong legal legitimacy and is oriented towards fulfilling the right to education for all. Furthermore, Law Number 20 of 2003 concerning the National Education System affirms that education is a conscious and planned effort to optimally develop students' potential.

Second, oriented towards the quality of education. Quality improvement is a primary focus of national education policy through curriculum development, teacher competency enhancement, strengthening school governance, and implementing a quality assurance system. Quality orientation is measured not only by student academic achievement but also by the effectiveness of the learning process, graduate competencies, and a culture of quality that is continuously implemented through the quality assurance cycle (PPEPP).

Third, ensuring equal distribution of educational services. Educational equity is a government effort to ensure all citizens have access to quality education services without discrimination. This policy is implemented through the provision of educational facilities and infrastructure, teacher distribution, educational assistance programs, digitalization of learning, and affirmative action for disadvantaged, frontier, and outermost (3T) regions. Equity concerns not only access but also equality in the quality of educational services throughout Indonesia.

Fourth, support the development of 21st century competencies. Global developments demand that students possess critical thinking, creativity, communication, collaboration, digital literacy, and problem-solving skills. Therefore, national education policy directs the learning process to be more student-centered, project-based, and utilize information technology as a learning medium. These competencies

are essential for navigating the dynamics of the workplace and global society.

Fifth, strengthening character education. National education is not only oriented towards mastering knowledge, but also towards character development of students. Character building is realized through the internalization of the values of Pancasila, integrity, mutual cooperation, independence, tolerance, responsibility, and a culture of lifelong learning. This approach aims to produce graduates who are not only intellectually intelligent but also possess moral, social, and emotional intelligence.

Sixth, support the digital transformation of education**.** Technological advancements are driving the government to develop policies that support the digitalization of education through the use of digital learning platforms, improving digital literacy, developing electronic learning resources, and strengthening the digital competencies of teachers and students. Digital transformation is expected to improve learning effectiveness, expand access to education, and create a more innovative and adaptive educational ecosystem to changing times.(Zhao, 2021)

Overall, the characteristics of national education policy demonstrate the government's commitment to building an equitable, high-quality education system that is relevant to developments in science, technology, and societal needs. Implementing this policy requires synergy between the government, educational institutions, educators, parents, and the community to optimally achieve national education goals.

1.4.5 Implementation of National Education Policy

Implementation of national education policy is carried out through:

1) Implementation of National Education Standards
2) Strengthening the adaptive national curriculum
3) Improving teacher competency
4) Digitalization of learning
5) Quality assurance of education
6) Evaluation and accreditation of education
7) Strengthening education governance.

The implementation of national education policy is the process of translating various government regulations and policy directives into practical education delivery at all levels. Successful implementation is determined not only by the quality of the formulated policies but also by the commitment of the government, educational institutions, educators, and all stakeholders to consistently and sustainably implement the policies. The following seven aspects of implementation are interrelated components in building a quality, inclusive, and adaptive education system.

The National Education Standards (SNP) serve as the primary foundation for ensuring the quality of education in Indonesia. Eight standards, covering graduate competency standards, content, process, assessment, educators and education personnel, facilities and infrastructure, management, and financing, serve as a guideline for every educational unit in providing educational services. Consistent implementation of the SNP contributes to equitable education quality and improved student learning outcomes.(Ministry of Education, Culture, Research, and Technology, 2021)

The national curriculum needs to be designed adaptively to meet the challenges of developments in science and technology, as well as the needs of 21st-century society. The implementation of the Independent Curriculum, for example, provides schools with flexibility in developing student-centered learning, strengthening

competencies, character, creativity, critical thinking, collaboration, and communication. An adaptive curriculum also allows for the integration of technology and contextual learning, thus better preparing students for global change.

Teachers are key actors in the implementation of education policies. Therefore, improving pedagogical, professional, social, and personal competencies is a strategic factor in improving the quality of learning. Furthermore, teachers are required to possess digital competencies, the ability to integrate technology into learning (TPACK), and the ability to develop innovative learning that is tailored to student characteristics. Continuous teacher professional development has a significant impact on improving student learning outcomes.(Darling-Hammond, 2020)

Digital transformation is a priority in national education policy. The use of Learning Management Systems (LMS), digital learning platforms, artificial intelligence (AI), and various interactive learning media enables more flexible, effective, and efficient learning processes. Digitalization also expands access to education for communities in various regions while improving the digital literacy of both teachers and students.

Educational quality assurance is implemented through the Internal Quality Assurance System (SPMI) and the External Quality Assurance System (SPME). The PPEPP cycle (Determination, Implementation, Evaluation, Control, and Improvement) is the primary mechanism for building a sustainable quality culture. With quality assurance, each educational unit is able to conduct self-evaluations, identify weaknesses, and develop systematic quality improvement strategies, thus creating continuous quality improvement.

Evaluation and accreditation serve as mechanisms for measuring the level of achievement of educational quality standards. Evaluations are conducted periodically to assess the effectiveness of educational programs, while accreditation provides recognition of an institution's quality based on established indicators. The results of evaluations and accreditation serve as the basis for the government and educational institutions in formulating policies to improve the quality and accountability of education delivery.

Good educational governance is characterized by the principles of transparency, accountability, effectiveness, efficiency, participation, and compliance with regulations. Strengthening governance supports data-driven decision-making, optimizing resource management, and improving the quality of educational services. Good governance is also the foundation for the successful implementation of various national education transformation programs.

The implementation of national education policy requires a comprehensive approach through synergy between the implementation of National Education Standards, strengthening an adaptive curriculum, improving teacher competency, digitizing learning, quality assurance, evaluation and accreditation, and effective education governance. These seven aspects complement each other in creating a quality education system that is adaptive to technological developments and capable of producing graduates with superior competencies, character, and readiness to face global challenges. With consistent implementation and the support of a sustainable culture of quality, the goals of national education development can be optimally achieved.

1.5 The Relationship between Regional Autonomy, Educational Decentralization, and National Education Policy

These three concepts complement each other. Regional autonomy grants local governments authority to manage education, while educational decentralization serves as the mechanism for implementing this authority. National education policy serves as a framework, ensuring that all regions continue to provide education in accordance with national goals, quality standards, and the principle of equity. Therefore, a balance between regional flexibility and national regulations is crucial for improving the quality of Indonesian education.

The relationship between regional autonomy, educational decentralization, and national education policy constitutes an interconnected system in education governance in Indonesia. Regional autonomy provides local governments with the authority to manage the education sector according to local characteristics, needs, and potential. This authority encompasses educational program planning, human resource management, facility and infrastructure development, and education budget allocation in accordance with regional development priorities. This delegation of authority is expected to improve the efficiency of public services while accelerating equitable access to education across regions.(Akib, 2010)

Decentralization of education is an instrument for implementing regional autonomy policies. Through decentralization, the decision-making process is no longer entirely centered on the central government, but rather involves provincial, district/city governments, and even educational units. According to Rondinelli's theory of decentralization, delegating authority to local governments can increase responsiveness to community needs because decisions

are made more closely attuned to local conditions. In the educational context, decentralization enables learning innovation, curriculum development based on local wisdom, and increased community participation in school management.

However, the implementation of regional autonomy and educational decentralization cannot proceed without a national education policy that serves as the primary guideline. The national education policy establishes the direction of educational development through National Education Standards, a national curriculum, an evaluation system, and various regulations that guarantee the quality of educational services throughout Indonesia. This policy plays a role in maintaining equality in educational quality, ensuring that decentralization does not create disparities between regions.

The relationship between these three concepts reflects the principle **shared governance**, namely the division of responsibilities between the central government and regional governments. The central government plays a role in establishing regulations, quality standards, and national strategic policies, while regional governments are responsible for implementing policies according to their respective regional conditions. This governance model allows for a balance between national standardization and local flexibility, making education policies more adaptive to community needs.

From a modern education management perspective, the success of the relationship between regional autonomy, educational decentralization, and national education policy depends heavily on the institutional capacity of local governments. Regions with good governance, effective leadership, and competent human resources tend to be able to optimally implement education policies. Conversely, regions with low institutional capacity are likely to experience gaps in education quality despite having broad authority. Therefore,

strengthening local government capacity through improving the competence of their apparatus, digitizing education governance, strengthening internal quality assurance systems, and ongoing oversight are crucial aspects in supporting the effectiveness of education decentralization.

Furthermore, developments in education policy in the era of digital transformation demonstrate that the interconnectedness of these three concepts increasingly demands collaboration across levels of government. Implementing policies such as the Independent Curriculum, school digitalization, strengthening literacy and numeracy, and improving teacher competency requires synergy between the central government as regulator and regional governments as implementers. Therefore, the success of national education development is determined not only by the extent of authority granted to regions, but also by the effectiveness of coordination, accountability, and commitment of all stakeholders in achieving national education goals.(Yusuf, 2015)

The relationship between regional autonomy, educational decentralization, and national education policy demonstrates a mutually supportive relationship in the implementation of education in Indonesia. Regional autonomy grants authority to local governments, educational decentralization serves as the implementation mechanism, while national education policy serves as a control mechanism to ensure education continues to meet national standards and educational development goals. A balance between regional flexibility, accountability, and national regulations is key to achieving quality, equitable, adaptive, and competitive education.

1.6 Conclusion

Regional autonomy, educational decentralization, and national education policies are three interconnected components in building a quality, equitable, and sustainable Indonesian education system. Regional autonomy grants local governments the authority to manage education according to the characteristics and needs of their regions, while educational decentralization serves as a mechanism for implementing this authority through the division of responsibilities between the central government, local governments, and educational units. Furthermore, national education policies serve as strategic guidelines that maintain harmony in the implementation of education throughout Indonesia by establishing objectives, standards, curricula, quality assurance systems, and various national regulations.

The implementation of these three policies has provided various benefits, such as increased effectiveness of education governance, equitable access, learning innovation, community participation, and accountability in education delivery. However, their implementation still faces challenges in the form of unequal capacity of local governments, disparities in education quality between regions, limited human resources, differences in fiscal capacity, and suboptimal intergovernmental coordination. Therefore, strong synergy is needed between the central government, local governments, educational units, and all stakeholders through strengthening governance, increasing institutional capacity, utilizing digital technology, and implementing a sustainable quality assurance system so that national education goals can be achieved effectively, adaptively, and capable of producing superior Indonesian human resources with character and global competitiveness.

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Chapter 2
Educational Management in Elementary School Education Units

2.1 Introduction

Elementary education plays a strategic role in building the foundation of students' knowledge, skills, character, and life values. The success of elementary school education is determined not only by the quality of classroom learning but also by the effectiveness of the overall management of the educational unit. Educational management encompasses a range of integrated activities, from planning and organizing to implementing and supervising all school programs, to effectively and efficiently achieve national education goals. With effective management, schools are able to create a conducive learning environment, improve the quality of educational services, and optimize the sustainable use of available resources.(Mulyasa, 2022) (Sallis, 2014)

In the Regulation of the Minister of Primary and Secondary Education (Permendikdasmen) Number 26 of 2025, the management of education in elementary school educational units cannot be separated from an understanding of the organization and work procedures of the school. School organization is a system that regulates the division of tasks, authority, responsibility, and coordination mechanisms between personnel so that all educational activities can run synergistically. A clear organizational structure allows every element of the school, from the principal, teachers, education staff, school committee, to other stakeholders, to understand their respective roles and functions in supporting the achievement of the school's vision and mission. A systematically

structured work procedure also contributes to increasing the effectiveness of communication, efficiency of program implementation, and accountability in decision-making so that school governance becomes more professional.

In practice, elementary school management must be implemented based on the principles of good governance namely participatory, transparent, accountable, effective, efficient, and oriented towards continuous quality improvement. The principal has a role as a learning leader (*instructional leader*) who is not only responsible for school administration, but also plays a role in developing a culture of quality, empowering educators and education personnel, building collaboration with the community, and ensuring that the entire educational process runs in accordance with national policies. Effective leadership is a crucial factor in improving school performance and creating an organizational culture that is adaptive to changes in the educational environment.(Bush, 2020)

Based on Minister of Home Affairs Regulation Number 59 of 2021 and Law Number 20 of 2003, in addition to National Education Standards, the implementation of basic education must also comply with Minimum Service Standards (SPM). SPM is a provision regarding the type and quality of basic services that must be provided by regional governments as a form of fulfilling citizens' constitutional rights to educational services. Through the implementation of SPM, regional governments are obliged to ensure the availability of basic education services that meet minimum standards, both in terms of educational access, availability of educators, facilities and infrastructure, and quality of service to students. The implementation of SPM is expected to reduce the gap in education quality between regions while increasing equitable access to quality education.

Changes in education policy, the development of digital technology, and the demands for improving the quality of human resources in the 21st century have made managing education in elementary schools increasingly complex. Schools are required to develop adaptive, innovative, data-driven management systems that are oriented towards continuous quality improvement. In this context, the implementation of effective organizational and work procedures, compliance with National Education Standards, and the implementation of Minimum Service Standards are three main, complementary pillars in realizing quality school governance. The synergy of these three aspects is expected to produce educational units that not only comply with regulatory requirements but also provide educational services relevant to student needs, scientific developments, and global challenges.

Thus, understanding education management in elementary schools, including organization and work procedures, National Education Standards, and Minimum Service Standards, is a crucial competency for principals, teachers, prospective educators, and education stakeholders. This understanding will serve as the foundation for designing, implementing, evaluating, and developing an effective, accountable school management system that is oriented toward continuously improving the quality of education in accordance with national education policy.

2.2 Concept of Educational Management in Elementary Schools

Educational management in elementary schools is a systematic process of organizing all educational resources to achieve learning objectives effectively, efficiently, and with a focus on quality improvement. This process encompasses planning, organizing,

implementing, supervising, and evaluating various school programs. Good management focuses not only on administrative aspects but also on developing the quality of learning, the professionalism of educators, and creating a learning environment conducive to student development. Therefore, educational management is a crucial foundation for realizing quality schools capable of providing optimal educational services.(Rohiat, 2020)

In Indonesia, the management of education in elementary schools is carried out based on the principle School-Based Management (SBM) which empowers schools to manage resources according to the needs and characteristics of their respective environments. Through this approach, principals, teachers, education staff, school committees, and the community are encouraged to actively participate in decision-making and school program development. The implementation of SBM is expected to improve the effectiveness of education delivery, strengthen accountability, and foster a sustainable culture of quality.(Directorate of Elementary School Development, 2018)

Conceptually, educational management has four main functions, namely planning, organizing, implementing, and controlling These four functions are interrelated in ensuring that all school activities are carried out in accordance with established objectives. Furthermore, the scope of education management includes the management of the curriculum, students, educators and education personnel, facilities and infrastructure, finances, and school-community relations. Integrated management across all these aspects will support the continuous improvement of the quality of educational services.(Daryanto, 2013) (Suryaman, 2024)

Educational management in elementary schools is an integrated process that encompasses planning, organizing, implementing, and

supervising all school resources to achieve educational goals effectively and efficiently. Good management is not only oriented towards administrative aspects, but also towards improving the quality of learning, developing educator professionalism, and creating a learning environment conducive to student development. Through the application of the principles School-Based Management (SBM), schools have the flexibility to manage their resources independently while prioritizing participation, transparency, accountability, and continuous improvement. Thus, effective educational management is a crucial factor in realizing quality elementary schools that are adaptive to change and capable of producing graduates with competence, character, and readiness to face future challenges.

2.3 Elementary School Organization and Work Procedures

The organization and working procedures of elementary schools (SD) are a crucial part of the educational process, regulating the division of tasks, responsibilities, authority, and working relationships among school members. Good organizational management will support an effective, efficient, and quality-oriented educational process. A clear organizational structure also facilitates coordination in achieving established educational goals.(Today, 2018)

A school organization is a collection of various elements that work together to provide educational services. These elements include the principal, teachers, education staff, students, and the school committee, each with its own roles and functions. A clear division of tasks will increase the effectiveness of school program implementation and create a conducive work environment.(Lunenburg, 2021) (Robbins, 2018)

School work procedures are the mechanisms for carrying out tasks through planning, program implementation, coordination, and monitoring and evaluation. The principal acts as a leader, coordinating all school activities, while teachers are responsible for implementing learning and assessing learning outcomes. A systematic work procedure fosters accountability and continuous improvement in the quality of educational services.

Elementary school organization and procedures are essential foundations for effective and quality education. Through a clear organizational structure, proportional division of tasks, and strong coordination among school personnel, all educational programs can be implemented optimally. A systematic work procedure also supports accountable, efficient, and quality-improving school governance. Therefore, implementing sound organization and procedures will strengthen school performance in achieving educational goals and providing quality educational services to students.

2.4 Work Procedures in Elementary Schools

The work procedures in elementary schools provide guidelines that govern the division of tasks, authority, responsibility, and coordination mechanisms among school personnel to ensure all educational activities run effectively and efficiently. Work procedures are a crucial element in school management because they support the creation of a professional, efficient organization focused on improving the quality of education.

Work procedures can be defined as a series of procedures that govern the working relationship between the principal, teachers, education staff, and other stakeholders in carrying out their respective functions. These arrangements aim to avoid overlapping duties and

increase the effectiveness of educational delivery in schools.(Suharsaputra, 2021)

The implementation of work procedures aims to clarify the division of tasks, improve coordination, strengthen communication, and create a transparent and accountable work system. Planned work procedures also support informed decision-making and the continuous improvement of the quality of educational services.(Wahjosumidjo, 2021)

The implementation of work procedures involves all elements of the school, from the principal as leader, teachers as learning implementers, education staff as administrative support, and the school committee as partners in the delivery of education. Synergy between these elements is a crucial factor in realizing effective school governance in accordance with the principles of School-Based Management.

The work procedures in elementary schools serve as a guideline for managing the implementation of tasks, coordination, and responsibilities of all school members, ensuring that every activity proceeds in a focused manner. Systematic work arrangements not only help improve the effectiveness of school programs but also strengthen communication, collaboration, and accountability in educational management. Therefore, the consistent implementation of work procedures is a crucial prerequisite for creating a professional, adaptive school environment that supports the continuous improvement of educational quality.

2.5 National Education Standards (SNP)

The National Education Standards (SNP) are the minimum criteria used as a reference for the implementation of education in Indonesia. They serve as guidelines for the government, regional

governments, and educational institutions in ensuring the quality of sustainable education services. Through the implementation of these standards, each educational institution is expected to be able to provide a quality, equitable, and relevant educational process that meets the needs of students and advances in science and technology.(Indonesia, 2021) (Indonesia, 2022)

The National Standards (SNP) encompasses eight main components: Graduate Competency Standards, Content Standards, Process Standards, Educational Assessment Standards, Educator and Education Personnel Standards, Facilities and Infrastructure Standards, Management Standards, and Financing Standards. These eight standards are interrelated and serve as the foundation for planning, implementing, evaluating, and improving educational quality. The implementation of the SNP also supports the establishment of a culture of quality through the ongoing Internal Quality Assurance System (SPMI).(Mulyasa, 2023)

In practice, the implementation of the National Education Standards (SNP) is not only oriented towards complying with regulations, but also towards improving the quality of learning and student learning outcomes. Therefore, schools need to optimize resource management, improve educator competency, provide adequate infrastructure, and conduct regular evaluations. Thus, the SNP becomes a strategic instrument in realizing the national education goal of producing graduates with character and competence who are able to face global challenges.

The National Education Standards (SNP) are a strategic instrument for ensuring educational quality because they provide clear direction for the implementation of education in every educational unit. The SNP serves not only as a minimum standard that must be met but also as a reference for continuous evaluation and quality

improvement. Through eight integrated standards, schools can identify strengths and weaknesses, and develop improvement programs based on the results of systematic evaluations.

The implementation of the National Education Standards (SNP) also contributes to improving the quality of learning. Process standards, graduate competencies, and educational assessments encourage teachers to design student-centered learning, implement comprehensive assessments, and develop 21st-century competencies. Furthermore, the success of SNP implementation is influenced by educator competence, effective school leadership, adequate facilities and infrastructure, and financial support. If any of these components are not met, achieving optimal educational standards will be difficult.

In the context of quality assurance, the National Standards (SNP) serves as the basis for implementing the Internal Quality Assurance System (SPMI) through a cycle of Determination, Implementation, Evaluation, Control, and Improvement (PPEPP). This cycle enables educational units to make continuous improvements based on data and evaluation results. Therefore, the implementation of the SNP is not only oriented towards complying with regulations but also towards establishing a culture of quality that supports the continuous improvement of education quality and the achievement of national education goals.

The National Education Standards (SNP) are the primary foundation for ensuring the quality of education in Indonesia through eight integrated standards that serve as a reference for education delivery. The implementation of the SNP not only aims to meet regulatory requirements but also encourages improvements in the quality of learning, school management, educator competency, the provision of facilities and infrastructure, and an assessment system oriented towards student learning outcomes. The success of the SNP

implementation depends heavily on the synergy of all educational components and the commitment of educational units to optimize their resources. Through the implementation of the Internal Quality Assurance System (SPMI) with a continuous PPEPP cycle, schools can conduct data-based evaluations and improvements, thus establishing a quality culture that supports the achievement of national education goals, namely producing graduates with character, competence, adaptability, and the ability to face global challenges.

2.6 Implementation of SNP in Elementary Schools

The implementation of National Education Standards (SNP) in elementary schools is a systematic effort to ensure the provision of quality education in accordance with national regulations. The SNP serves as a guideline for schools in managing all aspects of education, from curriculum planning and teaching implementation to assessment of learning outcomes and management of educational resources. The implementation of the SNP is not only oriented towards meeting administrative standards but also towards continuously improving the quality of learning and achieving student competencies.

The implementation of the National Education Standards (NES) in elementary schools demonstrates that achieving educational quality is determined not only by fulfilling the eight administrative standards, but also by the school's consistency in implementing them throughout the educational process. These eight standards are interconnected, so weaknesses in one standard, such as teacher competency or the availability of facilities and infrastructure, can impact learning effectiveness and student achievement. Therefore, the implementation of the NES requires an integrated approach oriented toward continuous quality improvement.

In practice, the National Education Standards (SNP) are implemented through the integrated application of eight educational standards: Graduate Competency Standards, Content Standards, Process Standards, Assessment Standards, Educator and Education Personnel Standards, Facilities and Infrastructure Standards, Management Standards, and Financing Standards. At the elementary school level, all of these standards are interconnected in creating a safe, inclusive, and student-centered learning environment. Teachers play a crucial role in designing active and meaningful learning, while the principal is responsible for coordinating school management to ensure all programs meet established quality standards.

From a learning perspective, the implementation of the National Education Standards (SNP) encourages teachers to implement student-centered learning through the use of innovative learning models, continuous assessment, and the use of digital technology. However, in practice, various challenges remain, such as gaps in teacher competency, limited learning facilities, and the suboptimal use of evaluation results as a basis for decision-making. These conditions demonstrate that improving educational quality cannot be achieved solely through the provision of facilities; it must also be accompanied by human resource capacity development and a culture of reflection within schools.

The success of the National Standards (SNP) implementation is greatly influenced by the commitment of all school members to building a culture of quality. The implementation of the Internal Quality Assurance System (SPMI) through the Determination, Implementation, Evaluation, Control, and Improvement (PPEPP) cycle is an effective strategy to ensure continuous improvement. Furthermore, improving teacher competency, utilizing digital technology, parental involvement, and government support are crucial

factors in achieving optimal educational quality in elementary schools.(UNESCO, 2021)

The implementation of the National Standards (SNP) is also closely linked to the implementation of the Internal Quality Assurance System (SPMI). Through the Determination, Implementation, Evaluation, Control, and Improvement (PPEPP) cycle, schools can identify gaps between actual conditions and established standards and then develop improvement programs based on the evaluation results. This approach ensures a systematic, data-driven, and sustainable quality improvement process, thereby enhancing the quality of educational services and supporting the achievement of national education goals.

The implementation of National Education Standards (SNP) in elementary schools is a strategic process to ensure educational quality through the integrated application of eight standards across all aspects of school administration. Successful implementation depends not only on administrative compliance with the standards, but also on the commitment of all school members to building a culture of quality, improving educator competency, optimizing school management, and conducting continuous evaluation and improvement through the Internal Quality Assurance System (SPMI). With consistent, data-driven implementation, elementary schools are expected to produce graduates with academic competence, strong character, and skills relevant to current developments and community needs.

2.7 Minimum Service Standards (SPM) in the Education Sector

The Minimum Service Standards (SPM) for Education are provisions regarding basic educational services that must be met by local governments as a means of fulfilling citizens' rights to adequate

educational services. The SPM serves as a benchmark for ensuring equal access to education, particularly at the primary level, by providing services that meet minimum standards as stipulated in laws and regulations.

The Minimum Service Standards (SPM) for Education are a policy instrument that serves as a benchmark to ensure the provision of basic education services for all citizens. The SPM not only emphasizes equal access to education but also encourages local governments to meet established technical standards for service quality. Therefore, the SPM serves as the basis for planning, budgeting, implementing, and evaluating education provision in the regions.(Government of the Republic of Indonesia, 2018)

The implementation of the Minimum Service Standards (SPM) aims to ensure that every student receives equal educational services regardless of geographic conditions or regional fiscal capacity. Therefore, regional governments are obliged to plan, implement, and evaluate educational services based on indicators established by the central government, such as the availability of educational units, teaching staff, infrastructure, and student access to educational services.

From an educational management perspective, the implementation of MSS requires data-driven management and a focus on real needs on the ground. Local governments need to map the condition of educational units, teacher availability, facilities and infrastructure, and student characteristics to ensure targeted programs. However, MSS implementation still faces various obstacles, such as unequal distribution of teaching staff, budget constraints, and differences in management capacity across regions. These conditions have the potential to hinder the achievement of minimum service indicators.(Ministry of Education, 2022)

The implementation of SPM is also a crucial instrument for improving the quality of education governance. Through continuous monitoring and evaluation, local governments can identify service gaps, set improvement priorities, and optimize resource utilization to achieve quality, equitable, and equitable education services.

Therefore, successful implementation of the MSS requires synergy between the central government, regional governments, and educational institutions. Regular monitoring, indicator-based evaluation, and continuous follow-up are crucial steps to improve the quality of education services. With consistent implementation, MSS can support equitable education quality while strengthening the achievement of National Education Standards.

The Minimum Service Standards (SPM) for Education are a policy instrument that ensures the provision of basic education services in an equitable and high-quality manner. The implementation of SPM helps local governments prioritize services based on community needs and serves as a reference in planning, implementing, and evaluating education provision. Although its implementation still faces challenges, such as limited resources and regional disparities, the implementation of SPM, supported by data-driven management, ongoing monitoring, and synergy between the central government, local governments, and educational institutions, will improve equitable access to and quality of education. Therefore, SPM plays a crucial role in realizing fair, high-quality education services that are in accordance with the mandate of laws and regulations.

2.8 Relationship between SNP and SPM

The National Education Standards (SNP) and the Quality Assurance System (SPM) are two interrelated components in the

implementation of quality education in Indonesia. The SNP serves as a national benchmark that establishes minimum criteria for education implementation, while the SPM serves as a system that ensures each standard can be achieved, maintained, and continuously improved. Thus, the SNP provides direction regarding the quality that must be achieved, while the SPM provides a mechanism for managing the process of achieving it through a systematic approach oriented towards continuous improvement.

The National Education Standards serve as the foundation for all educational institutions in implementing the educational process. These standards cover various important aspects, such as graduate competencies, learning content, learning processes, assessments, teaching and administrative staff, facilities and infrastructure, management, and financing. The National Education Standards (SNP) provide a common direction for all schools in planning programs, managing resources, and evaluating educational outcomes, thereby ensuring the quality of educational services nationally.

On the other hand, the Quality Assurance System is an instrument used to ensure that all components of the National Standards (SNP) can be implemented effectively. The SPM is implemented through two approaches: the Internal Quality Assurance System (SPMI), which is run independently by educational units, and the External Quality Assurance System (SPME), which is carried out through an accreditation process and evaluation by an authorized institution. These two systems complement each other in building a culture of quality that encourages schools to conduct self-evaluations, address weaknesses, and continuously improve the quality of educational services.(Directorate General of Early Childhood Education, 2020)

The relationship between the National Standards (SNP) and the Minimum Service Standards (SPM) is mutually supportive because established standards will not be optimally achieved without an effective quality assurance system. In its implementation, schools conduct quality mapping to determine the level of achievement of each standard, then manage improvement programs based on the evaluation results. This process allows schools to identify gaps between current management and expected standards, enabling decisions to be more data-driven and reflect real-world needs.(Harmanto, 2019)

The implementation of the SPM is carried out through a continuous cycle, namely standard setting, program implementation, implementation evaluation, monitoring of evaluation results, and quality improvement. This cycle allows the quality management unit to carry out continuous improvements so that the achievement of the SNP is not merely a management effort but actually impacts the quality of learning, school governance, and student learning outcomes. Therefore, the success of the SNP implementation is greatly influenced by the consistency of the SPM implementation as an education quality control system.(Samodro, 2017)

From a management perspective, the relationship between SNP and SPM reflects the principle continuous quality improvement or continuous quality improvement. Each evaluation result goes beyond reporting, but serves as the basis for developing more effective follow-up programs. Through a data-driven evaluation culture, schools can improve organizational performance, strengthen human resource capacity, and produce graduates who meet national competency standards. Therefore, the integrated implementation of National Education Standards (SNP) and National Education

Standards (SPM) is a crucial factor in achieving adaptive, accountable, and high-quality management.(Kaolan, 2017)

The relationship between the National Education Standards (SNP) and the Quality Assurance System (SPM) is complementary in realizing quality management. The SNP serves as a reference that establishes minimum standards for management implementation, while the SPM functions as a system that ensures each standard can be achieved, evaluated, controlled, and continuously improved. Through the implementation of the SPM, management units are able to conduct quality mapping, identify gaps in the SNP, and manage improvement strategies based on data and real needs. Therefore, the implementation of the SNP will be more effective if supported by consistent implementation of the SPM, thereby creating a culture of quality that encourages continuous improvement in the quality of learning, school governance, and student outcomes.

2.9 Challenges of Educational Management in Elementary Schools

Educational management in elementary schools is a process that involves planning, organizing, implementing, supervising, and evaluating all educational components to achieve learning objectives effectively and efficiently. Good educational management is not only oriented towards achieving academic targets, but also towards developing student character, enhancing teacher professionalism, strengthening school culture, and optimizing the use of available resources. Changes in educational policy, developments in information technology, and the increasing demands for 21st-century competencies require elementary schools to be able to manage various aspects of education adaptively and innovatively. Thus, the success of educational implementation is greatly influenced by the school's ability

to respond to various challenges that arise through effective governance and a focus on continuous quality improvement.

Here are some challenges in managing education in elementary schools:(UNESCO, 2023) (OECD, 2024)

1) Principal Leadership Challenges: The principal holds a strategic position as a learning leader responsible for directing all educational activities in the school. This role encompasses not only administrative management but also organizational culture development, teacher competency enhancement, and data-driven decision-making. In practice, many elementary schools still face challenges such as high administrative burdens, limited managerial skills, and the suboptimal use of evaluation results as a basis for formulating school policies. These conditions can reduce the effectiveness of leadership in encouraging learning innovation and improving school quality. Therefore, principals are required to possess adaptive and collaborative leadership competencies and be able to build a culture of continuous improvement in line with the dynamics of change in education.
2) Challenges of Teacher Competency Development: Teachers are the primary factor determining the success of the learning process in elementary schools. The shifting learning paradigm requires teachers to not only master subject matter but also be able to implement student-centered learning, utilize digital technology, and conduct authentic assessments. However, teacher competency still shows significant variation, particularly in mastery of learning technology and the application of innovative learning strategies. Limited access to training, high administrative burdens, and a lack of professional mentoring are some of the factors that hinder the improvement of teacher competency. Therefore, continuous professional development

needs to be systematically designed so that teachers are able to adapt to developments in science and the needs of students.

3) Challenges of Curriculum Implementation: Curriculum implementation is one of the most complex aspects of education management. The Independent Curriculum provides schools with the opportunity to develop learning that is more flexible, contextual, and oriented toward developing student competencies. However, its implementation still faces various challenges, such as differences in school readiness levels, teacher abilities in developing teaching materials, implementing differentiated learning, and implementing formative assessments. Furthermore, changing the learning paradigm requires time for all school members to understand and consistently apply it. Therefore, curriculum implementation requires ongoing mentoring, academic supervision, and strong school leadership support to optimally achieve curriculum objectives.
4) Challenges of Digital Transformation: Advances in information technology have transformed various aspects of education management, from school administration to learning implementation. Elementary schools are encouraged to utilize digital technology to improve the effectiveness of educational services and expand access to learning resources. However, digital transformation still faces obstacles such as limited infrastructure, gaps in internet access, low digital literacy among some teachers, and suboptimal integration of technology into the learning process. Furthermore, schools also face the challenge of maintaining data security and developing ethical technology use in the educational environment. Therefore, digital transformation needs to be accompanied by increased human resource capacity and strengthened digital governance in schools.

5) The Challenge of Equalizing Educational Quality: Equalizing educational quality remains a critical issue in the provision of basic education in Indonesia. Differences in geographic, socioeconomic, and resource availability mean that the quality of educational services across regions is not yet fully equal. Schools in remote areas generally face limitations in the availability of teaching staff, learning resources, and access to information technology. These disparities impact the quality of the learning process and student learning outcomes. Therefore, efforts to improve educational quality need to be carried out comprehensively through equalizing resources, improving teacher competency, and strengthening school mentoring systems so that every student has the opportunity to receive quality learning.
6) Challenges in Facility and Infrastructure Management: Educational facilities and infrastructure are essential components that support an effective learning process. School facility management encompasses not only the provision of buildings and classrooms but also the maintenance, inventory, and development of facilities to meet learning needs. In reality, many elementary schools still face limited laboratory facilities, libraries, learning media, and technological devices. This situation can impact the quality of students' learning experiences. Therefore, schools need to implement needs-based facility and infrastructure planning and conduct regular evaluations to ensure optimal utilization of all facilities.
7) Challenges of Educational Quality Assurance: Implementing an Internal Quality Assurance System (SPMI) is one strategy for building a culture of quality in schools. However, the implementation of SPMI at the elementary school level still faces

various obstacles, such as a lack of understanding of the PPEPP cycle, limited ability to conduct data-based evaluations, and less than optimal follow-up of monitoring and evaluation results. As a result, quality assurance activities are often more oriented towards fulfilling administrative requirements than improving the quality of educational services. Therefore, a commitment from all school members is needed to make quality assurance a continuous organizational learning process.

The challenges of managing primary schools reflect the complexity of education delivery in an era of rapid change. Principal leadership, teacher competency development, curriculum implementation, digital transformation, quality equity, facility and infrastructure management, and quality assurance are interrelated aspects that determine educational quality. Therefore, school management must be professional, data-driven, adaptive to change, and oriented toward continuous quality improvement. Collaboration between the government, schools, teachers, parents, and the community is crucial in creating a primary education system capable of meeting future challenges.

2.10 Conclusion

Educational management in elementary schools is an integrated process of managing all educational resources through planning, organizing, implementing, monitoring, and evaluating to achieve educational goals effectively, efficiently, and sustainably. The success of educational delivery is determined not only by the quality of learning, but also by the effectiveness of the school's organization and work procedures, the leadership of the principal, the professionalism of teachers, and the synergy of all stakeholders in building a culture of quality.

Clear school organization and work procedures are the foundation for coordination, task allocation, communication, and accountability in education delivery. Meanwhile, the National Education Standards (SNP) serve as a national quality benchmark that guides all aspects of education delivery, while the Minimum Service Standards (SPM) ensure equitable and high-quality basic education services for all students. Both complement each other in realizing an education system that meets quality standards while ensuring equitable access to education services.

Implementing the National Standards (SNP) and Standards of Education (SPM) requires a strong commitment from all school members through the implementation of an Internal Quality Assurance System (SPMI) with a cycle of Determination, Implementation, Evaluation, Control, and Improvement (PPEPP). This approach enables schools to conduct data-driven evaluations, identify quality gaps, and develop improvement programs oriented towards continuously improving the quality of educational services.

Amidst the dynamics of technological developments, changes in education policy, and demands for 21st-century competencies, elementary schools also face various challenges, including strengthening principal leadership, improving teacher competency, curriculum implementation, digital transformation, equitable education quality, managing facilities and infrastructure, and strengthening quality assurance systems. These challenges require adaptive, innovative, collaborative, and evidence-based education management to enable schools to respond effectively to change.

Thus, education management in elementary schools must be carried out professionally, transparently, and accountably, and oriented towards continuous quality improvement. Synergy between effective organizational and work procedures, consistent

implementation of National Standards for Education (SNP) and Standards for Education (SPM), and strengthening a culture of quality through the SPMI will be key factors in realizing high-quality, inclusive, adaptive elementary schools, and capable of producing graduates with character and competence who are ready to face future challenges in line with national education goals.

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Chapter 3
The Basic Nature of School-Based Management (SBM) Approaches and Models of School-Based Management

3.1 Introduction

The transformation of educational governance in the era of decentralization requires schools to have greater capacity to manage resources, make decisions, and develop programs that are tailored to student needs and environmental characteristics. This situation has given rise to School-Based Management (SBM) As an educational management paradigm that places schools at the center of decision-making through greater autonomy and responsibility for continuously improving educational quality, SBM is not only oriented toward efficient school management but also encourages participatory, transparent, accountable governance that is focused on student learning outcomes.(Her, 2023) (Hasnadi, 2024)

Conceptually, the fundamental essence of School-Based Management is the empowerment of all school components through a proportional distribution of authority among the government, principals, teachers, education staff, school committees, parents, and the community. This approach views schools as learning organizations capable of designing policies, managing resources, and resolving various problems based on real-world needs. Therefore, the success of School-Based Management (SBM) implementation is greatly influenced by the quality of the principal's leadership, collaborative culture, human resource capacity, and the active

involvement of stakeholders in every decision-making process.(Rofifah, 2023) (Salmi, 2024)

Developments in educational management studies indicate that the implementation of SBM cannot be separated from various modern management approaches. Participatory approaches emphasize the importance of involving all school members in the planning and evaluation process, while decentralized approaches provide schools with the flexibility to develop innovations tailored to local needs. Furthermore, quality-based approaches and performance-based approach is increasingly being implemented to ensure that each school program is implemented based on clear success indicators, supported by data-based evaluation, and directed at continuously improving the quality of educational services.(Fahmi et al., 2024) (Nirma Husni et al., 2024)

In its implementation, SBM has evolved into various management models tailored to the characteristics of schools and the challenges of 21st-century education. These models emphasize visionary leadership, collaboration among stakeholders, the use of information technology, effective organizational communication, and data-driven decision-making. The integration of technology into school governance is also a crucial factor in increasing administrative effectiveness, accelerating information dissemination, and supporting the creation of a sustainable quality culture. Thus, SBM is no longer understood merely as an administrative policy, but as a strategy for developing educational organizations capable of enhancing school competitiveness amidst increasingly dynamic environmental changes.(Sebayang et al., 2024) (Lestari et al., 2024)

Based on this description, an understanding of the basic nature, approaches, and models of School-Based Management provides an important foundation for principals, teachers, supervisors, students,

and education practitioners in developing an effective school governance system. A comprehensive understanding of this concept is expected to foster schools that are independent, innovative, adaptive, and oriented towards continuously improving the quality of education, thereby meeting the challenges of national and global education in the era of digital transformation.

3.2 Basic Nature of School-Based Management (SBM), Approaches, and Models of School-Based Management

3.2.1 The Nature of School-Based Management (SBM)

School-Based Management (SBM) is an educational management paradigm that places schools at the center of decision-making in educational delivery. The core essence of SBM is granting schools greater authority to independently manage their various resources, tailored to the characteristics, needs, and potential of the school environment. This authority is not intended to free schools from national policies, but rather serves as a means for each educational unit to implement policies more effectively and contextually. Through this approach, schools have greater room to design programs, develop learning innovations, optimize resource utilization, and continuously improve the quality of educational services.(Blessing, 2024) (Hasibuan, 2024)

Conceptually, the essence of SBM is rooted in the principle of educational decentralization, which emphasizes that operational decisions will be more effective if made by those who best understand the conditions on the ground. Schools, as educational organizations, have more complete information regarding student needs, teacher competencies, the condition of infrastructure, and the characteristics of the surrounding community. Therefore, granting autonomy to

schools allows for more responsive, adaptive, and innovative policy development than if all decisions were made centrally. From this perspective, SBM is not simply a change in administrative systems, but rather a shift in organizational culture toward governance oriented toward quality, collaboration, and continuous improvement.(Dipa, 2024)

The essence of SBM is also reflected in the balance between authority and responsibility. The greater the authority granted to schools, the greater the demand for accountability in the delivery of education. The entire process of planning, implementing, evaluating, and reporting school programs must be carried out transparently and accountable to the government, community, parents, and other stakeholders. Thus, SBM not only encourages the creation of independent schools but also builds public trust through professional, open, and accountable governance.(Maulana, 2024)

In its implementation, the essence of MBS places the principal as the learning leader (*instructional leader*) who is responsible for directing all resources to achieve educational goals. The principal no longer plays a mere administrator role, but rather becomes an agent of change capable of building a culture of quality, motivating teachers, developing collaboration with the community, and creating a school climate conducive to improving student achievement. On the other hand, teachers play a key role in implementing the learning process and are given broader opportunities to develop creativity and innovation according to student needs. The active involvement of teachers, education staff, school committees, parents, and the community is an important characteristic in the implementation of School-Based Management (SBM) because the success of school management does not only depend on the principal, but is the result of collaboration between all stakeholders.

The nature of MBS is also closely related to efforts to build a quality culture (*quality culture*) within the school environment. A culture of quality is characterized by the commitment of all school members to conduct self-evaluations, address weaknesses, develop innovations, and continuously improve the quality of educational services. Schools are encouraged to utilize data as a basis for decision-making so that each designed program has a clear empirical basis. This approach aligns with the concept of continuous quality improvement (*continuous quality improvement*) which places evaluation and reflection as an integral part of school management.

Furthermore, the essence of SBM cannot be separated from the principle of community participation. Schools are viewed as part of a social system, so the success of education requires the support of various parties, including parents, the business world, industry, local governments, and the surrounding community. The involvement of these stakeholders includes not only financial support but also participation in policy development, program supervision, evaluation, and the development of a conducive learning environment. Harmonious collaboration will strengthen the effectiveness of education delivery while increasing public trust in schools.

Thus, the essence of School-Based Management is not simply granting autonomy to schools, but rather an educational management system that integrates independence, effective leadership, community participation, transparency, accountability, and a culture of continuous quality improvement. The implementation of School-Based Management (SBM) is expected to produce schools that are adaptive to change, innovative in management, and capable of providing quality educational services in accordance with the demands of modern developments and the needs of society.

3.2.2 Foundations of School-Based Management

School-Based Management (SBM) is an educational management approach that grants schools broader authority to manage resources, plan programs, and make decisions based on student needs and the characteristics of the school environment. This approach developed in response to the demands of educational decentralization, which aims to increase the effectiveness of education delivery by empowering schools as the primary decision-making unit. The implementation of SBM not only emphasizes autonomy but also prioritizes the principles of accountability, transparency, community participation, and continuous quality improvement. Various studies have shown that schools that consistently implement SBM tend to have more effective governance, a stronger organizational culture, and improved quality of education services.(Awwaliyah, 2024)

Here are some of the foundations of school-based management: (Puja, 2024)

1) Philosophical Basis; Philosophically, School-Based Management is rooted in the view that education is a process of human empowerment that must be able to optimally develop the full potential of students. Schools are viewed as learning organizations that has the ability to develop innovations based on local needs without neglecting national education goals. Therefore, each school is given the space to develop programs relevant to the social, cultural, and economic conditions and characteristics of its students. The principles of democracy, independence, responsibility, and justice are the core values underlying the implementation of MBS, so that all school members have the opportunity to participate in decision-making to improve the quality of education.

2) Legal Basis; Legally, the implementation of MBS has a strong legal basis in the Indonesian national education system. Law Number 20 of 2003 concerning the National Education System emphasizes that the management of educational units is carried out based on the principles of autonomy, accountability, quality assurance, and transparent evaluation. Furthermore, Law Number 23 of 2014 concerning Regional Government strengthens the implementation of educational decentralization through the division of authority between the central government and regional governments. In addition, Government Regulation Number 57 of 2021 concerning National Education Standards serves as a guideline for schools in developing management systems that adhere to national quality standards. With these regulations, schools have the legitimacy to manage resources independently while being responsible for achieving educational quality.
3) Theoretical Basis; The theoretical basis of MBS comes from various modern management theories, especially decentralization theory, participatory management,*Total Quality Management*(TQM), and learning organizations. Decentralization theory explains that decisions made closer to the source of problems will result in more effective policies that align with the organization's needs. In the educational context, schools are the ones who best understand the needs of students, thus having the capacity to design more targeted programs. On the other hand, the TQM concept emphasizes the importance of a culture of quality through continuous evaluation, innovation, and improvement of educational services. This approach makes all school members responsible for continuously improving the quality of education.
4) Sociological Foundations; The sociological foundation of MBS is based on the understanding that schools are part of a social

system that cannot be separated from society. Therefore, the success of education is greatly influenced by harmonious relationships between schools, parents, school committees, local governments, the business world, and various other elements of society. The involvement of these stakeholders not only provides support for the implementation of education but also increases a sense of ownership towards schools. Community participation in program development, monitoring, and evaluation is one indicator of the success of MBS implementation because it can increase transparency and accountability in school management.

5) Managerial Foundation; From a management perspective, SBM integrates management functions including planning, organizing, implementing, monitoring, and evaluating into a single, quality-oriented school management system. School planning must be based on needs analysis and valid data so that the resulting program can effectively address educational challenges. Furthermore, program implementation requires effective coordination among school members, while the monitoring and evaluation process serves as the basis for continuous improvement. In the context of higher education and schools, this approach aligns with the principles of the Internal Quality Assurance System (SPMI), which utilizes the PPEPP cycle as a mechanism for systematic and continuous quality improvement.
6) Empirical Basis: Various empirical studies have shown that the implementation of SBM positively contributes to improving the quality of school governance. Schools that implement participatory leadership, management transparency, data utilization in decision-making, and community involvement tend to show improvements in teacher professionalism, effective use of resources, and student learning outcomes. However, the success

of SBM implementation is still influenced by the competence of the principal, organizational culture, teacher readiness, and local government support in providing adequate policies and resources. Therefore, strengthening human resource capacity is one of the main strategies in optimizing SBM implementation at various levels of education.

The Foundations of School-Based Management are conceptual foundations that integrate philosophical, legal, theoretical, sociological, managerial, and empirical aspects in the implementation of education. These foundations provide direction for schools to implement independent, participatory, transparent, and accountable governance without neglecting national education standards. By understanding these foundations, schools can develop management systems that are adaptive to environmental changes while simultaneously achieving sustainable improvements in educational quality through collaboration with all stakeholders.

3.2.3 MBS Goals and Objectives

School-Based Management (SBM) is an educational management approach that places schools at the center of decision-making by granting them greater autonomy in managing resources, developing programs, and developing quality improvement strategies. The implementation of SBM aims to create a school management system that is more responsive to the needs of students and the surrounding environment, while simultaneously increasing the effectiveness of education delivery through the active participation of all stakeholders. With greater authority at the school level, each educational unit has the opportunity to develop innovations that align with its characteristics, potential, and challenges without neglecting national education policy.(OECD, 2023)

The primary objective of SBM is to improve the quality of education through effective, efficient, transparent, and accountable school management. This improvement is realized through the implementation of student-centered learning, strengthening teacher competencies, optimizing facilities and infrastructure, and developing an organizational culture that supports lifelong learning. Schools that consistently apply SBM principles tend to be better able to develop strategic plans, optimally manage resources, and conduct ongoing evaluations of implemented programs.(Bush, 2020)

In addition to focusing on quality improvement, SBM also aims to strengthen school independence in making decisions related to curriculum management, human resource development, budget management, and the development of priority school programs. This independence provides space for schools to develop innovations based on analyses of local needs and potential. This ensures that every decision made is more relevant to the actual conditions faced by the school, resulting in more effective program implementation and an impact on improving the quality of educational services.(Fitrah, 2022)

The next goal is to increase the participation of all stakeholders in the provision of education. MBS believes that improving school quality is not solely the responsibility of principals and teachers, but also requires the active support of parents, school committees, local governments, businesses, industry, and the community. Collaboration built through these partnerships can strengthen support for the implementation of school programs, expand available resources, and foster a sense of ownership in the continuity of education at the school.(UNESCO, 2022)

The implementation of SBM is also aimed at increasing transparency and accountability in school management. The entire process of planning, implementation, budget utilization, and program

evaluation is conducted openly and accountably to all stakeholders. Transparency in school governance will increase public trust while encouraging the creation of an organizational culture that upholds integrity, professionalism, and quality public service. This accountability is a crucial indicator in realizing good educational governance (*good school governance*). (Mulyasa, 2023)

The primary goal of MBS is to improve the overall quality of students, encompassing knowledge, skills, and character. Schools are expected to produce graduates who possess critical, creative, communicative, and collaborative thinking skills, as well as character traits consistent with the Pancasila Student Profile. To achieve these goals, schools need to develop innovative learning processes, authentic assessments, and educational services oriented to student needs, enabling them to adapt to the rapid developments in science, technology, and social change.

The next goal is to improve the professionalism of teachers and education personnel. Teachers are a crucial factor in the success of SBM implementation, as the quality of learning is significantly influenced by educator competence. Therefore, schools need to provide various ongoing professional development programs, such as training, academic supervision, learning communities, classroom action research, and the use of digital technology in learning. These efforts are expected to enhance teachers' pedagogical, professional, social, and personal competencies, thereby improving the quality of educational services.

Another target that is no less important is strengthening the leadership of the principal as a learning leader (*instructional leader*). The principal is not only tasked with carrying out administrative functions, but is also responsible for establishing the school's vision, developing a culture of quality, motivating the school community, and making

data-driven decisions. Effective leadership will create a collaborative work environment, encourage innovation, and strengthen the culture of evaluation and continuous improvement that are key characteristics of SBM implementation.

Overall, the goals and objectives of SBM complement each other in building an adaptive, participatory, and quality-improving school management system. Goals provide direction for the implementation of SBM, while targets serve as the focus of development that must be realized to optimally achieve these goals. If all school components are able to synergistically fulfill their roles, SBM will become a strategic instrument in realizing quality, equitable, and sustainable education in accordance with the demands of educational development in the 21st century.

3.2.4 Principles of School-Based Management

School-Based Management (SBM) is an educational management approach that grants educational units greater authority to manage resources, make decisions, and develop programs tailored to the characteristics and needs of the school. This approach emerged as an implementation of educational decentralization, aimed at improving service quality through granting autonomy, strengthening stakeholder participation, and implementing effective school governance. The latest regulations direct the implementation of SBM toward ensuring safe, inclusive, and high-quality educational services, oriented toward improving student learning outcomes by strengthening five key pillars: independence, partnership, community participation, openness, and accountability.

The principles of school-based management include:(Center for Educational Standards and Policy, 2025)

1) The Principle of Autonomy: Autonomy is a key principle in School-Based Management, granting schools the freedom to manage various aspects of education delivery according to local conditions and needs without neglecting national policies. Through this principle, schools have the authority to formulate work programs, develop learning innovations, manage human resources, and optimize the use of infrastructure to improve the quality of education. Autonomy encourages schools to become learning organizations capable of adapting to environmental changes and making faster and more accurate decisions based on the real needs of students.
2) The Principle of Participation; Participation emphasizes the active involvement of all school members and stakeholders, such as the principal, teachers, education staff, students, parents, school committees, the business community, and the community, in every decision-making process. This involvement includes planning, implementing, monitoring, and evaluating school programs. The higher the level of participation, the greater the sense of ownership of the school, thereby increasing shared responsibility in achieving educational goals. Effective participation also strengthens collaboration between school elements, making various policies more responsive to community needs.
3) The Principle of Transparency (Openness); Transparency is a principle that requires all school management processes to be conducted openly, honestly, and easily accessible to all stakeholders. Information regarding program planning, budget utilization, activity implementation, and school achievements must be conveyed clearly to build public trust in school management. Transparency also encourages a healthy organizational culture

because every decision can be openly accounted for and reduces the potential for abuse of authority. Thus, schools are able to build harmonious relationships with the community through effective and sustainable communication.

4) The Principle of Accountability: Accountability implies that every policy, program, and use of school resources must be accountable to the government, community, parents, and all stakeholders. Accountability focuses not only on administrative and financial aspects, but also on achieving learning quality, student development, and the effectiveness of school program implementation. Good accountability reflects the school's commitment to continuously improving the quality of educational services and serves as a foundation for building public trust in educational institutions. (Riantiningrum, 2026)
5) Partnership Principle: Partnership is a principle that emphasizes the importance of collaboration between schools and various parties, such as local governments, universities, the business and industrial world, professional organizations, non-governmental organizations, and educational communities. Partnerships enable schools to obtain resource support, increase teacher capacity, develop learning innovations, and expand learning opportunities for students. Collaboration that is built on a sustainable basis can strengthen schools' competitiveness while increasing the relevance of education to community needs and current developments. (Karjuni, 2026)
6) The Principle of Professionalism: Professionalism requires all school members to carry out their duties in accordance with their competencies, code of ethics, and educational service standards. Principals are required to possess strategic leadership skills, teachers must be able to develop quality learning, and educational

staff must carry out administrative functions effectively. Professionalism is an important foundation for realizing efficient, adaptive school governance that is oriented toward improving the quality of education. Continuous competency development is an integral part of implementing this principle so that schools are able to face the challenges of 21st-century education.

7) The Principle of Effectiveness and Efficiency: Effectiveness refers to a school's ability to achieve educational goals according to predetermined targets, while efficiency relates to the optimal use of resources to achieve the best results. In the context of SBM, each program must be designed based on a needs analysis, implemented systematically, evaluated periodically, and produce a tangible impact on improving the quality of learning and student achievement. Effective and efficient management allows schools to utilize limited resources optimally, thereby providing greater benefits to all members of the school community.
8) Sustainable Quality-Oriented Principles: School-Based Management (SBM) aims not only to improve school performance in the short term but also to build a sustainable culture of quality. Schools need to implement a continuous improvement cycle through the planning, implementation, evaluation, control, and improvement (PPEPP) process. This approach encourages systematic evaluation of each school program so that weaknesses can be promptly addressed and good practices can be continuously developed. Thus, the quality of education improves consistently in line with the evolving needs of students and community demands. (Ministry of Primary and Secondary Education, 2026)

The principles of School-Based Management (SBM) are the primary foundation for realizing effective, democratic school

governance that is oriented toward improving the quality of education. The eight principles—independence, participation, transparency, accountability, partnership, professionalism, effectiveness and efficiency, and a focus on sustainable quality—complement each other in building a school management system that is adaptive to student needs, community developments, and national education policies. The application of these principles encourages schools to have autonomy in decision-making, strengthens collaboration with various stakeholders, ensures transparency and accountability in management, and optimizes the use of resources professionally and efficiently.

Furthermore, the implementation of SBM principles focuses not only on achieving short-term targets but also on fostering a sustainable quality culture through the Planning, Implementation, Evaluation, Control, and Improvement (PPEPP) cycle. This enables schools to consistently improve the quality of their educational services, strengthen public trust, and produce graduates with competencies that meet the demands of developments in science, technology, and the needs of the 21st century.

3.2.5 Characteristics of Schools Implementing MBS

School-Based Management (SBM) is an educational management model that provides schools with greater autonomy to manage resources, make decisions, and develop programs tailored to the needs and characteristics of the school environment. The implementation of SBM is not only oriented towards increasing administrative efficiency, but also towards improving the quality of educational services through the active participation of all stakeholders, such as principals, teachers, students, education personnel, school committees, parents, and the community. Schools

that implement SBM have certain characteristics that distinguish them from schools with more centralized management systems. These characteristics reflect an organizational culture that is democratic, accountable, transparent, and oriented towards continuous quality improvement. Various recent studies have shown that the success of SBM implementation is greatly influenced by the leadership of the principal, community participation, effective resource management, and a continuous evaluation system.(Khoriah, 2025)

The characteristics of schools that implement MBS are as follows:

1) Having Autonomy in Decision-Making; The main characteristic of schools that implement SBM is greater authority in making strategic and operational decisions. The principal, along with teachers and the school community, has the flexibility to formulate work programs, develop the operational curriculum for the educational unit, manage the budget, and determine school development priorities according to student needs and environmental conditions. This autonomy allows schools to be more responsive to various educational challenges, allowing innovation to develop without relying entirely on centralized policies. However, autonomy remains implemented within the framework of National Education Standards and government regulations to maintain accountability.
2) Visionary and Participative Principal Leadership; Schools that implement MBS are characterized by the leadership of a principal who is able to become a learning leader (*instructional leader*) and organizational manager. The principal not only performs administrative functions but also builds a shared vision, empowers teachers, encourages learning innovation, and creates a collaborative work culture. Decision-making is carried out

through deliberation involving teachers, education staff, the school committee, and other stakeholders, thus fostering a sense of ownership in the school's programs. Participatory leadership has been shown to increase teacher motivation and the effectiveness of implementing education quality improvement programs.

3) High Participation of School and Community Members; Another important characteristic is the high level of participation of all school and community members in the provision of education. Parents, school committees, businesses, community leaders, and local governments are involved in the planning, implementation, supervision, and evaluation of school programs. This participation is not only in the form of financial support, but also contributions of ideas, energy, collaborative networks, and supervision of the provision of education. The involvement of various parties creates a harmonious relationship between the school and the community, so that the school is able to obtain broader support in improving the quality of education.
4) Effective and Efficient Resource Management: Schools based on SBM are able to manage human resources, finances, infrastructure, and time effectively and efficiently. Budget management is carried out transparently according to the school's priority needs and is oriented towards improving the quality of learning services. Furthermore, teacher competency development through training, learning communities, and academic supervision is a crucial part of human resource management. With good management, schools are able to maximize their full potential to optimally achieve educational goals.

5) Sustainable Quality Culture: Schools that implement SBM have a strong quality culture. All school activities are directed at improving quality through a cycle of planning, implementation, evaluation, control, and continuous improvement. Teachers routinely reflect on the learning process, while the principal carries out academic and managerial supervision as a basis for improving school programs. A culture of quality is also reflected in the commitment of all school members to consistently achieving the school's vision, mission, and goals. (Husni, 2024)
6) Transparency and Accountability in School Management: The next characteristic is transparency and accountability in all aspects of school management. Information regarding budget utilization, program achievements, evaluation results, and activity planning is conveyed openly to the school community and the community. Transparency increases public trust in schools while strengthening public oversight of education delivery. Accountability is realized through the preparation of accountability reports that can be justified both administratively and morally. (B., M. R. S., Z. A., & B. M. Asyibli, 2024)
7) Student-Centered Learning: Schools that implement SBM place students at the center of the learning process. Teachers are given the freedom to develop innovative, contextual, collaborative learning strategies tailored to student characteristics. The learning environment is designed to foster 21st-century competencies, such as critical thinking, creativity, communication, collaboration, and digital literacy. This approach makes the learning process more meaningful and improves student learning outcomes and character.
8) Data-Based Evaluation: Another increasingly important characteristic of SBM implementation is the use of data as a basis

for decision-making. Schools analyze student assessment results, program evaluations, teacher performance, student attendance, and parent satisfaction to determine appropriate policies. Data-driven school management allows every decision to be based on real needs, making quality improvement programs more effective, measurable, and sustainable. (D. T., D. D., & D. S. S. Pamungkas, 2024)

The characteristics of schools implementing School-Based Management (SBM) demonstrate that the success of educational delivery is largely determined by the school's ability to manage resources independently, participatively, transparently, and with a focus on quality improvement. SBM implementation is characterized by autonomy in decision-making, visionary and participatory leadership of the principal, high involvement of the school community and the community, effective and efficient resource management, a culture of sustainable quality, transparency and accountability, student-centered learning, and the use of data as a basis for decision-making. All of these characteristics are interrelated and form an adaptive, innovative, and accountable school management system. By consistently implementing these characteristics, schools are expected to improve the quality of educational services, optimize the achievement of National Education Standards, and produce graduates with character and competence who are able to face the challenges of modern development.

3.3 School-Based Management Approach

3.3.1 Approaches in MBS

School-Based Management (SBM) is an educational management approach that grants schools greater authority in managing resources, making decisions, and developing programs

tailored to local needs and characteristics. This approach developed as an implementation of educational decentralization aimed at improving the quality of educational services through increased school autonomy, accountability, community participation, and effective leadership. In its implementation, SBM is viewed not only as an administrative system but also as a school management paradigm that positions the entire school community as key actors in the process of continuously improving educational quality. Recent studies have shown that the success of SBM is influenced by the managerial approach used in managing schools, which is able to create a culture of quality, improve teacher performance, and strengthen collaboration between schools and the community.

The following approaches to school-based management include:

1) Decentralization Approach: A decentralized approach is the main foundation of School-Based Management. This approach gives schools the authority to design educational programs, manage budgets, develop operational curricula for educational units, and determine quality improvement strategies according to the needs of students and the surrounding environment. The government continues to set national standards as a reference, while schools have the flexibility to determine the best way to achieve these standards. Thus, decisions are made more quickly, accurately, and in accordance with the actual conditions of the school. Research shows that a decentralized approach increases the effectiveness of school management because decisions are made by those who best understand the school's needs.
2) Participatory Approach: The participatory approach emphasizes the involvement of all stakeholders, including principals, teachers, education staff, students, parents, school committees,

businesses, and the community, in the decision-making process. This active participation enhances a sense of ownership, transparency, and commitment to school programs. Deliberations in the preparation of the School Work Plan (RKS), program evaluation, and budget preparation are examples of the implementation of a participatory approach. The greater the community involvement, the greater the support for improving the quality of education and the sustainability of school programs. (Orrocherrya Mardly Narendas, 2024)

3) Quality-Oriented Approach; The quality-oriented approach is oriented towards continuous quality improvement. In this approach, all school activities are directed toward meeting or even exceeding the National Education Standards (SNP). Schools implement a cycle of planning, implementation, evaluation, follow-up, and improvement as part of a culture of quality. Evaluation is conducted periodically through academic supervision, school self-evaluation, program monitoring, and stakeholder satisfaction measurement. This approach shares similarities with the principles of *Total Quality Management*(TQM), namely placing quality as the main goal of educational organizations.
4) Transformational Leadership Approach: The success of SBM is greatly influenced by the leadership of the principal. The transformational leadership approach positions the principal as an agent of change capable of inspiring teachers and education staff to achieve common goals. The principal functions not only as an administrator, but also as a motivator, innovator, facilitator, and builder of organizational culture. Transformational leadership encourages the emergence of learning innovation, increased teacher professionalism, team collaboration, and the

creation of a conducive work environment. This approach has been proven to increase the effectiveness of SBM implementation because it is able to optimally mobilize all school resources.

5) Collaborative Approach: The collaborative approach emphasizes the importance of cooperation between parties in resolving various school problems. Collaboration is carried out not only within the school environment but also with local governments, universities, the business world, professional organizations, and the community. Through this collaboration, schools receive various supports in the form of improving teacher competency, developing infrastructure, learning innovations, and strengthening school programs. This approach expands the school's resources, making the implementation of SBM more effective and sustainable.
6) Data-Driven School Management (SBM) is a modern approach to SBM that uses a variety of information as the basis for decision-making. The data analyzed includes student assessment results, academic achievement, student and teacher attendance, performance evaluations, infrastructure conditions, and community satisfaction survey results. Data analysis helps schools identify problems, determine program priorities, allocate budgets effectively, and evaluate the success of implemented policies. This approach supports the creation of objective, transparent, and accountable school governance.
7) Digital Technology-Based Approach; Digital transformation is driving the development of a technology-based approach in the implementation of School-Based Management (SBM). The use of School Management Information Systems (SIMS), digital learning platforms, school administration applications, and

electronic-based evaluation systems helps improve the efficiency of school management. Digitalization also strengthens communication between schools and parents, accelerates administrative services, and increases the transparency of financial management and school performance reporting. Thus, technology is a crucial instrument in supporting effective and adaptive school governance. (S. D. M., R. J. A. M., R. A. N., & S. N. L. Sumual, 2024)

8) Empowerment-Based Approach: The empowerment approach aims to increase the capacity of all school members through training, ongoing professional development, academic supervision, and opportunities for innovation. Teachers are given the space to develop creative learning methods, while educational staff are given the opportunity to improve their administrative and service competencies. Empowerment creates a productive work environment and increases the motivation and responsibility of each individual in achieving school goals. (Aulia Yunus, 2024)

Approaches to School-Based Management (SBM) are complementary strategies for realizing effective, participatory school governance that is oriented toward improving the quality of education. A decentralized approach grants schools autonomy in managing resources according to local needs, while a participatory approach encourages the active involvement of all stakeholders to strengthen ownership, transparency, and accountability. Furthermore, a quality-based approach emphasizes continuous improvement through systematic evaluation, supported by transformational leadership that mobilizes the entire school community toward achieving a shared vision and goals.

On the other hand, a collaborative approach expands partnership networks with various parties to support school development, while a data-driven approach ensures that every policy and program is based on objective and measurable information. A digital technology-based approach increases the efficiency, effectiveness, and transparency of school management through the use of information systems and digital services. An empowerment-based approach focuses on increasing human resource capacity through competency development and continuous innovation. By synergistically integrating all these approaches, the implementation of School-Based Management (SBM) can create a culture of quality, strengthen adaptive school governance, and continuously improve the quality of educational services in line with the demands of modern development.

3.3.2 Leadership Approach in MBS

Leadership approach in**School-Based Management (SBM)**is a leadership pattern implemented by school principals to optimize autonomy, participation, accountability, and continuous improvement of educational quality. In the context of SBM, the principal no longer acts as the sole decision-maker, but rather as a leader capable of building collaboration, empowering teachers, involving the community, and developing a culture of quality within the school environment. Several recent studies have shown that the effectiveness of SBM implementation is greatly influenced by the principal's ability to combine several leadership approaches according to the needs of the school organization.(Agung Gede Agung et al., 2026) (Librayani et al., 2026)

The following are several leadership approaches in MBS, including:

1) Transformational Leadership Approach: Transformational leadership emphasizes the principal's ability to build a shared vision, inspire the school community, motivate teachers to continue developing, and create change towards improving the quality of education. The principal acts as an agent of change who is able to build the commitment of all school members to shared goals through effective communication, role models, and empowerment of human resources. In the implementation of SBM, this approach encourages the creation of learning innovations, increased teacher professionalism, and a school culture that is adaptive to changes in education policy. (Misilu et al., 2025) (Furqoni et al., 2026)
2) Instructional Leadership Approach: The instructional leadership approach focuses on improving the quality of the learning process as the core of education delivery. The principal plays an active role in planning academic programs, supervising learning, providing feedback to teachers, facilitating professional development, and ensuring the curriculum is implemented effectively. In SBM, instructional leadership strengthens the school's function as a learning organization oriented towards improving student learning outcomes through quality learning management. (Lusita Putri & Ayu Sucitra, 2024) (Pitriani et al., 2026)
3) Distributed Leadership Approach: Distributed leadership views that leadership responsibility rests not only with the principal but also with vice principals, teachers, field coordinators, and educational staff according to their competencies. Through the distribution of authority, the decision-making process becomes more participatory, thereby increasing a sense of ownership of the school program. In the implementation of SBM, this approach

strengthens collaboration, accelerates problem-solving, increases innovation, and builds the school's organizational capacity in a sustainable manner. (Ina Marlina, 2025) (Afrianti et al., 2024)

4) Participatory Leadership Approach: Participatory leadership positions all school stakeholders as partners in the decision-making process. The principal opens dialogue with teachers, education staff, the school committee, parents, and the community to develop school policies and programs. This approach aligns with the basic principles of School-Based Management (SBM), which emphasize transparency, democracy, accountability, and community empowerment. The active involvement of all stakeholders will improve the quality of decisions, strengthen support for school programs, and create more effective governance. (Suhaimi et al., 2025)
5) Collaborative Leadership Approach: Collaborative leadership emphasizes the importance of cross-individual and cross-institutional collaboration to achieve educational goals. Principals build networks with teachers, school committees, local governments, businesses, universities, and the community to support school development. This approach enables schools to access the resources, innovations, and support needed to improve the quality of educational services. In SBM, collaboration is a crucial strategy for strengthening schools' capacity to face increasingly complex educational challenges.
6) Quality Culture-Oriented Leadership Approach: This approach positions the principal as the primary driver in building a culture of quality through a cycle of planning, implementation, evaluation, control, and continuous improvement. The principal encourages all school members to be committed to the quality of educational services, the use of data in decision-making, reflection on program

achievements, and continuous improvement. This approach aligns with the implementation of the Internal Quality Assurance System (SPMI), which is an essential part of school management based on autonomy and accountability.

The successful implementation of School-Based Management (SBM) is greatly influenced by the principal's ability to apply a leadership approach that is appropriate to the needs and characteristics of the educational unit. No single approach can address all the challenges of school management, necessitating the integration of various complementary leadership models. Leadership that inspires change, prioritizes improving the quality of learning, encourages the involvement of all school members, builds partnerships with various parties, and instills a culture of quality will create a more effective and sustainable school management system. The synergy between these approaches strengthens the decision-making process, increases human resource capacity, optimizes the utilization of various school potentials, and fosters a shared commitment to achieving educational goals. Therefore, the implementation of adaptive, collaborative leadership that is oriented towards continuous improvement is an important foundation for realizing schools that are independent, accountable, and innovative, and capable of providing quality educational services in accordance with the demands of modern developments.

3.3.3 Decision Making Approach in MBS

Decision-making is the core of the management process because it determines the direction of policy, the effectiveness of programs, and the achievement of organizational goals. In this context, School-Based Management (SBM), the decision-making process has undergone a paradigm shift from a centralized system to

one that grants schools greater autonomy. This autonomy allows the principal, along with teachers, education staff, school committees, parents, and the community to be actively involved in formulating various policies according to the needs and characteristics of the school. Thus, the resulting decisions are more contextual, responsive, and able to address the challenges of continuously improving the quality of education. The effective implementation of SBM demonstrates that the involvement of various stakeholders in the decision-making process contributes to increased accountability, transparency, and the quality of education services.(B. Asyibli et al., 2025)

From a SBM perspective, decision-making is understood as a systematic process for selecting the best alternative course of action based on problem analysis, available data, and the school's desired goals. This process is not only oriented toward solving administrative problems but also directed toward creating a democratic, participatory, and quality-improving organizational culture. Therefore, every decision must prioritize the interests of students while maintaining a balance between effective school management and community aspirations. This approach strengthens the school's position as a learning organization capable of adapting to changes in the educational environment.. (Mardly Narendas et al., 2024)

As forDecision Making Approaches in MBS, including:

1) Participatory Approach: A participatory approach places the entire school community as part of the decision-making process. The principal does not act as the sole decision-maker, but rather acts as a facilitator who opens up space for dialogue, deliberation, and the exchange of ideas. Teachers provide input based on learning experiences, the school committee conveys community aspirations, and parents provide information

regarding student needs. The involvement of various parties results in more objective decisions because they consider diverse perspectives. In addition to improving policy quality, a participatory approach also strengthens a sense of ownership to school programs so that their implementation gains broader support. Recent research shows that schools that implement participatory decision-making tend to have a more democratic, collaborative, and effective organizational culture. (Darmawan et al., 2026)

2) Data-Driven Approach (*Data-Driven Decision Making*); The digital transformation in education is encouraging schools to use data as the primary basis for policy development. Decisions are no longer based solely on intuition or experience, but utilize information obtained from student assessment results, educational report cards, learning evaluations, student attendance, teacher performance, infrastructure conditions, and the results of school community satisfaction surveys. A data-driven approach enables schools to more accurately identify root causes, determine program priorities, and objectively evaluate policy effectiveness. Thus, every decision has a strong empirical basis, thus minimizing the risk of errors in planning. The success of this approach depends heavily on the ability of school principals and teachers to manage, analyze, and utilize data as a basis for improving the quality of education. (Susanto et al., 2025)
3) Deliberation for Consensus Approach: Deliberation is an approach that aligns with democratic values and Indonesian culture. In SBM, deliberation is used to reach a collective agreement on various strategic school policies. Each participant is given an equal opportunity to express opinions, critique

alternative solutions, and provide recommendations before a decision is made. Decisions made through deliberation are generally more easily accepted by the entire school community because they are developed through an open communication process. This approach also strengthens the relationship between the school and the community, thereby creating trust and sustainable cooperation in school development. (Nur, 2026)

4) Strategic Approach: A strategic approach is used when schools face decisions that have long-term impacts, such as developing a school vision, developing an operational curriculum for educational units, improving teacher competency, digitizing learning, or developing facilities and infrastructure. In this approach, the decision-making process begins with an analysis of the school's internal and external environment, identifying organizational strengths and weaknesses, and analyzing potential opportunities and challenges. The results of this analysis serve as the basis for determining policy alternatives that are most relevant to the school's development goals. A strategic approach helps schools develop policy directions that are more adaptive to the dynamics of education while maintaining sustainable quality improvement. (Listari et al., 2025)
5) Collaborative Approach; The collaborative approach emphasizes the importance of cooperation between schools and various stakeholders, such as local governments, universities, businesses and industry, professional organizations, and the community. This collaboration enables schools to obtain resources, information, experience, and innovation that support the development of educational quality. Through collaboration, the decision-making process becomes more comprehensive because it considers the perspectives of various parties. In addition to

producing higher-quality policies, this approach also expands the school's partnership network, thus supporting the successful implementation of various educational programs.

Decision-making in School-Based Management (SBM) is a process that requires a combination of inclusive leadership, the use of accurate information, thorough planning, and synergy with various stakeholders. Participatory, data-driven, deliberation-to-consensus, strategic, and collaborative approaches have distinct characteristics, yet they support each other in producing policies that are responsive to school needs. Through the application of these approaches, each decision is not only oriented towards solving short-term problems, but also directed towards strengthening school governance, increasing the effectiveness of program implementation, and ensuring the sustainable improvement of educational quality. Therefore, the success of SBM is largely determined by the school's ability to integrate various decision-making approaches in an adaptive, transparent, and accountable manner in accordance with the dynamics and needs of the educational unit.

3.4 School-Based Management Model

3.4.1 School-Based Management Models

School-Based Management (SBM) can be implemented through several models tailored to the needs, characteristics, and capacities of each school. While they have different focuses, all models aim to improve educational quality by strengthening autonomy, accountability, and participation of the school community. Selecting the right model helps schools manage resources more effectively and encourages continuous improvement in the quality of learning.(E., & H. P. Saputra, 2024)

Here School-Based Management (SBM) Models include:

1) Participatory Model: The participatory model emphasizes the involvement of the principal, teachers, education staff, school committee, parents, and the community in the decision-making process. The involvement of various parties creates transparency, increases ownership of school programs, and strengthens accountability in education management. (Ferriswara, 2024)
2) Quality-Based Model: This model focuses on continuous quality improvement through a cycle of planning, implementation, evaluation, and improvement. All school programs are structured based on quality standards, making educational services more effective and efficient. (Sumual, 2024)
3) Transformational Leadership Model: In this model, the principal acts as an agent of change, capable of building a shared vision, motivating teachers, and creating an innovative work culture. Effective leadership is a crucial factor in the successful implementation of SBM.
4) Data-Driven Model: A data-driven model uses evaluation results, assessments, and various school information as the basis for policy development. This approach helps schools make decisions that are more objective, targeted, and aligned with student needs.
5) Community-Based Model: This model emphasizes partnerships between schools and the community. Support from parents, businesses, and local governments contributes to the provision of resources and the development of school programs, thereby improving the quality of educational services. (Zohriah, 2024)

Various School-Based Management (SBM) models illustrate that effective school management requires a combination of visionary leadership, active involvement of all stakeholders, a culture of continuous quality improvement, the use of data for decision-making, and strong partnerships with the community. Each model has distinct

characteristics and focuses, but all aim to improve the quality of school governance, strengthen accountability, optimize resource use, and create educational services that are more responsive to student needs. Therefore, the contextual and integrated implementation of SBM models is a crucial strategy for realizing high-quality, adaptive, and sustainable schools.

3.4.2 Digital-Based MBS Model

The Digital-Based School-Based Management (SBM) model is a development of the SBM concept that integrates information and communication technology (ICT) into all school management processes. This model utilizes technology not only as an administrative tool but also as an instrument to improve the effectiveness of decision-making, transparency, accountability, collaboration, and the quality of educational services. In this model, principals, teachers, education personnel, students, parents, and the community are connected through a digital ecosystem that enables faster, more accurate, and data-driven school management (*data-driven school management* The implementation of digital-based MBS is becoming increasingly relevant in facing the demands of Education 4.0 and digital transformation in the education sector.(D. T. Pamungkas et al., 2024) (Mubarok, 2024)

The digital-based MBS model has a number of characteristics that differentiate it from conventional MBS, including:(Only Kumairo, 2024)

1) All school data is managed through an integrated information system, thus facilitating the planning, implementation, monitoring, and evaluation of school programs.
2) Decision making is done based on analysis of data obtained in real-time.

3) Communication between schools and parents and the community is carried out through various digital platforms, thereby increasing transparency and public participation.
4) School administration is carried out electronically (*paperless administration*) to improve the efficiency of document management and school services. Furthermore, the use of digital technology also supports academic supervision, teacher professional development, and more systematic reporting of school performance.

The implementation of digital-based MBS includes several main components that are integrated with each other, namely:

1) Digital Leadership; The principal acts as a digital leader capable of designing a digital transformation vision, building a culture of innovation, developing the digital competency of school residents, and encouraging the use of technology in all aspects of school management. Digital leadership is a key factor in the success of the MBS transformation because it determines the policy direction and sustainability of school innovation. (Bazargan; Muhammad; Pujianti, 2024)
2) Digital Governance: School governance is carried out through an information system that supports academic administration, finance, infrastructure, personnel, student affairs, and public services. This system increases transparency, reduces administrative errors, and accelerates service delivery to all stakeholders.
3) Data-Driven Decision Making: All strategic school decisions are based on data analysis, such as student academic achievement, attendance, assessment results, teacher performance, infrastructure conditions, and user satisfaction. A data-driven approach enables schools to develop more targeted programs

and facilitate easy evaluation of their effectiveness. (Widi Izzara et al., 2024)

4) Digital Collaboration; Digital-based MBS strengthens collaboration between schools, parents, school committees, government, and the community through digital communication channels such as Learning Management Systems (LMS), school apps, online conferences, official social media platforms, and school service portals. Intensive collaboration increases community participation in supporting the quality of education. (Orrocherrya Mardly, 2024)
5) Digital Quality Assurance: An internal quality assurance system utilizes technology to monitor school quality indicators, evaluate program achievement, document supervision results, and generate reports automatically. This allows the PPEPP cycle to be implemented more effectively, efficiently, and sustainably.

The implementation of digital-based MBS is carried out through several interconnected stages. First stage is an analysis of the school's digital needs to identify the readiness of infrastructure, human resources, and organizational culture. Second stage is the preparation of a digital transformation policy that includes a vision, targets, and operational standards. Third stage in the form of providing digital infrastructure such as internet networks, computer devices, school information systems, and online learning platforms. Next stage The program aims to improve the digital competency of principals, teachers, and education staff through ongoing training. This will then involve implementing a digital system in all aspects of school management, culminating in monitoring, evaluation, and continuous improvement based on the system's data.

The digital-based SBM model offers various advantages, including improving school administrative efficiency, accelerating

decision-making processes, strengthening transparency in school financial management and programs, improving the accuracy of education data, expanding community participation, and supporting learning that is more adaptive to technological developments. Furthermore, digitalization enables schools to conduct continuous quality monitoring so that education quality improvement programs can be designed based on empirical evidence (*evidence-based policy*).

Despite its many advantages, the implementation of digital-based SBM still faces several challenges. These challenges include limited technological infrastructure, gaps in the digital competency of teachers and education personnel, budget constraints, school data security, and resistance to changes in work culture. Therefore, successful implementation requires commitment from school leaders, government support, increased digital literacy among all school members, and the development of adequate information security policies.

The digital-based School-Based Management (SBM) model is a school management approach that optimizes the use of digital technology to support every stage of management, from planning and implementation to monitoring and evaluation of school programs. Technology integration enables more accurate data management, accelerates decision-making processes, increases governance transparency, and strengthens collaboration between principals, teachers, education staff, students, parents, and the community. This empowers schools to better respond to change, improve the quality of educational services, and foster an innovative and evidence-based work culture.

The success of digital-based SBM implementation is determined not only by the availability of technological infrastructure, but also by the quality of leadership, the digital competence of human resources,

and the commitment of all school members to building a culture of digital transformation. Therefore, developing the capacity of educators, strengthening quality assurance systems, and providing ongoing policy support are crucial factors for digitalizing school management to have a tangible impact on improving organizational effectiveness and the quality of student learning outcomes.

3.4.3 Supporting and Inhibiting Factors for MBS Implementation

The implementation of School-Based Management (SBM) is the process of applying school autonomy in managing resources, making decisions, and improving educational quality through the participation of all stakeholders. The success of SBM implementation is not only determined by applicable policies but is also influenced by various internal and external factors. Supporting factors will strengthen the effectiveness of SBM implementation, while inhibiting factors can reduce the optimal achievement of school goals if not managed properly. Therefore, identifying these two factors is an important basis for designing strategies to continuously improve educational quality.(Yani Handri Rumengan, 2024) (Walewangko et al., 2023)

As forSupporting factors for MBS implementation include:

1) Visionary Principal Leadership: The principal is the primary actor in the implementation of School-Based Management (SBM). Visionary, democratic leadership, and the ability to build a collaborative culture, will encourage all school members to participate in the planning, implementation, and evaluation of school programs. The principal also plays a role as a strategic decision-maker, motivator, and driver of innovation, capable of optimizing the school's full potential to achieve educational goals. (Intan Juliantika et al., 2026)

2) Teacher and Education Personnel Competence: Teachers with strong pedagogical, professional, social, and personal competencies will more easily implement school policies effectively. Furthermore, professional education personnel support smooth administration, financial management, student services, and infrastructure management, ensuring the optimal operation of all SBM programs. (Aidatul Fauziah, 2023)
3) Active Participation of School Committees and the Community: SBM positions the community as a strategic partner for the school. Support from the school committee, parents, the business community, and the community in the form of ideas, manpower, funding, and supervision will increase the accountability and sustainability of school programs. Community participation also strengthens transparency and a sense of ownership of the school. (Ayu Puspita Sari et al., 2023)
4) Availability of Facilities and Infrastructure: Adequate learning facilities, such as suitable classrooms, laboratories, libraries, internet connections, digital devices, and learning media, are crucial factors in supporting the implementation of SBM. The availability of infrastructure enables schools to run learning and administrative programs more effectively and efficiently.
5) Collaborative Organizational Culture: A school culture that prioritizes open communication, teamwork, mutual trust, discipline, innovation, and a commitment to quality improvement will accelerate the successful implementation of SBM. A positive organizational culture creates a work environment conducive to teacher professional development and improving the quality of educational services.
6) Government Policy Support: MBS implementation will be more optimal if supported by clear regulations, technical assistance,

ongoing training, adequate funding, and a monitoring and evaluation system from both the central and regional governments. Consistent policies provide certainty for schools in exercising their authority.

Then the factors inhibiting the implementation of MBS include:

1) Limited Human Resources: Some schools still have a limited number of competent teachers and educational staff. This situation increases the workload, resulting in less than optimal implementation of school programs. Furthermore, low managerial competency and the ability to adapt to change also pose challenges to the implementation of SBM. (Ni Ketut Wiswandewi, 2023)
2) Limited Facilities, Infrastructure, and Funding: Schools with limited learning facilities will struggle to implement various quality improvement programs. Budgetary constraints also impact human resource development, facility maintenance, and the implementation of innovative programs that support SBM.
3) Low Parental and Community Participation: The implementation of SBM requires the active involvement of all stakeholders. However, in some schools, community awareness of school programs remains low, resulting in suboptimal moral, material, and oversight support. This situation can hinder the effective implementation of various school policies.
4) Rapid Changes in Education Policy: Relatively frequent changes to curricula, assessment systems, and educational regulations can require time for schools to adapt. This adjustment process can sometimes lead to confusion for teachers and principals, resulting in inconsistent implementation of SBM.
5) Weak Monitoring and Evaluation System: The implementation of SBM requires a continuous monitoring and evaluation system

so that the effectiveness of each program can be measured. If evaluations are not conducted systematically, schools will have difficulty identifying weaknesses, formulating solutions, and making continuous improvements to their programs.

6) Resistance to Change: Some school members still maintain centralized work patterns, making them less prepared to embrace a work culture that demands collaboration, transparency, and accountability. This resistance to change can hinder innovation, participatory decision-making, and the development of a culture of quality, which are key characteristics of SBM.

The successful implementation of School-Based Management (SBM) does not depend on a single aspect, but rather on the synergy between effective leadership, quality human resources, the involvement of all stakeholders, the availability of resources, and conducive policy support. All of these factors form a school ecosystem capable of encouraging participatory decision-making, increasing accountability, and strengthening a culture of quality. On the other hand, various obstacles, such as limited competence, limited facilities and funding, low community participation, dynamic policy changes, and a suboptimal evaluation system, can hinder the achievement of SBM goals if not addressed systematically. Therefore, SBM implementation requires a shared commitment, strengthened institutional capacity, and ongoing evaluation so that schools are able to adapt to change and produce quality, effective educational services oriented towards continuous quality improvement.

3.4.4 Good Practices (*Best Practices*) Implementation of MBS

Implementation of School Based Management (SBM) will provide optimal impact if implemented through best practices (*best practices*) emphasizes collaborative leadership, participation of all

stakeholders, transparency, accountability, and data-driven decision-making. Various studies have shown that schools that successfully implement SBM are characterized by visionary principal leadership, a collaborative work culture, effective resource management, and continuous evaluation of all school programs. These practices not only improve the effectiveness of the school organization but also strengthen the quality of educational services and student learning outcomes.(E. Saputra & Hartati, 2024) (Insani et al., 2026)

Here are some Good Practice (*Best Practices*) Implementation of School-Based Management (SBM), including:

1) Visionary and Transformational Principal Leadership: Good SBM practices begin with the leadership of a principal who is able to build a shared vision, mobilize the entire school community, and foster a culture of innovation. The principal acts not only as an administrator but also as a learning leader (*instructional leader*) that can facilitate teacher competency improvement, foster open communication, and create a collaborative work environment. Transformational leadership has been shown to strengthen the implementation of SBM by increasing teacher commitment and the effectiveness of school organizations. (Fauzia Salmi, 2024)
2) Data-Driven Program Planning: Schools that successfully implement SBM consistently develop programs based on needs analysis and real-world data, such as student assessment results, school report cards, teacher performance evaluations, infrastructure conditions, and community input. Data-driven planning enables schools to objectively prioritize programs, resulting in more effective and targeted resource use. This approach also simplifies the monitoring and evaluation process for achieving school targets. (Nomin, 2025)

3) Active Participation of All Stakeholders: Another good practice is the active involvement of teachers, education staff, school committees, parents, the business community, and the community in the decision-making process. This participation is realized through deliberation forums, joint development of school programs, implementation of educational activities, and program evaluation. Strong collaboration can increase a sense of ownership, strengthening support for school programs and increasing accountability in education management. (Nirmayanthi, 2024)
4) Transparency and Accountability in School Management: Schools that effectively implement SBM consistently uphold the principle of transparency in budget management, resource utilization, and program implementation. Information regarding work plans, fund utilization, and program achievements is communicated openly to the school community and the wider community. This accountability builds public trust and strengthens professional and integrated school governance. (Putu Sora Dipa, 2024)
5) Strengthening Teacher Competence Through Continuous Professional Development; Successful implementation of MBS is always accompanied by increasing teacher capacity through training, learning communities, academic supervision,*coaching*, and reflection on learning. Continuous professional development enables teachers to improve their pedagogical, professional, social, and personal competencies, thereby continuously improving the quality of learning in line with student needs and curriculum developments. (Lorensius Amon, 2021)
6) Development of School Quality Culture; Good MBS practices are characterized by the formation of a quality culture that

emphasizes discipline, collaboration, innovation, excellent service, and continuous improvement. A culture of quality is realized through routine evaluations, program reflections, recognition of achievement, and the development of work habits based on agreed-upon quality standards. A positive organizational culture will strengthen the commitment of all school members to achieving educational goals. (Safwa Anzani et al., 2026)

7) Utilizing Digital Technology in School Governance: Digital transformation is one of the best practices in implementing School-Based Management (SBM). Schools utilize information systems to manage administration, finances, attendance, assessments, communication with parents, and document storage more efficiently. The use of technology also supports data-driven decision-making and increases the transparency of educational services, thus making school governance more effective. (Fikri Pratama, 2025)
8) Monitoring, Evaluation, and Continuous Improvement: Good MBS practices do not stop at program implementation, but are always followed by systematic monitoring and evaluation. Evaluations are conducted on the achievement of performance indicators, the effectiveness of resource use, the quality of learning, and stakeholder satisfaction. Evaluation results form the basis for developing improvement programs in the next cycle, thereby creating a culture of continuous quality improvement in accordance with the principles of *Plan–Do–Check–Act (PDCA)*or PPEPP in the Internal Quality Assurance System (SPMI).

Implementation of good practices (*best practices*) in School-Based Management (SBM) is a crucial factor in realizing quality, adaptive, and sustainable education governance. The success of SBM

implementation depends not only on granting autonomy to schools, but also on the ability of all school members to build collaborative leadership, develop programs based on needs and data, optimize stakeholder participation, and manage resources transparently and accountably. The application of these principles will create a school environment conducive to improving the quality of learning and developing students' potential.

Furthermore, strengthening educator competencies, utilizing digital technology in school governance, and implementing ongoing monitoring and evaluation are complementary elements in supporting the effectiveness of School-Based Management (SBM). Through continuous reflection and improvement, schools are able to adapt policies and programs to the dynamics of educational needs and the demands of changing times. Thus, good practices in SBM implementation not only result in improved school organizational performance but also build a culture of quality that supports the achievement of more effective, inclusive, and competitive educational services.

3.4.5 Future Trends in School-Based Management

School-Based Management (SBM) continues to evolve in line with the transformation of global education, advances in digital technology, and increasing demands for quality, accountability, and innovation in schools. In the future, SBM will no longer be solely oriented toward decentralization of authority, but will evolve into an adaptive, data-driven, collaborative, and sustainable school management system. Recent research indicates that the success of SBM will be largely determined by a school's ability to utilize technology, build a culture of quality, and involve all stakeholders in decision-making.(Karakose & Tülübaş, 2024)

Some Future Trends in School-Based Management include:

1) Data-Driven School Management; One of the main trends in MBS is the implementation of **data-driven decision making**or data-driven decision-making. Schools utilize various data sources, such as assessment results, student attendance, academic achievement, satisfaction surveys, and teacher performance evaluations, as the basis for developing school programs. This approach enables principals to make decisions that are more objective, targeted, and responsive to student needs. In addition to increasing the effectiveness of school programs, a culture of data-driven decision-making also strengthens transparency and accountability in education management. (Vina Handayani, 2025)
2) Artificial Intelligence Integration; Development **Artificial Intelligence (AI)** AI is predicted to be a crucial part of the implementation of SBM. AI can help schools automate administration, analyze student learning outcomes, predict dropout rates, compile academic reports, and even support budget planning and resource management. However, AI implementation needs to be accompanied by governance that addresses ethics, personal data protection, information security, and improves digital literacy for principals and teachers to ensure responsible use of technology. (Sari Hutami, 2024)
3) Distributed Leadership; The next trend is the development of **distributed leadership**, a leadership model that is not solely centered on the principal but also involves teachers, education staff, the school committee, and even students in the decision-making process. This model encourages collaboration, increases ownership of school programs, strengthens innovation, and accelerates the resolution of various organizational issues. Collaborative leadership is considered more effective in

addressing the complexities of educational change than centralized leadership models. (Muhammad Nadeem, 2024)

4) Digitizing School Governance: Digitization is a crucial foundation for the future development of School-Based Management (SBM). Management of administration, finances, facilities, infrastructure, school archives, and communication with parents is carried out through an integrated digital information system. The use of a school management dashboard allows for real-time monitoring of performance indicators, making evaluation and decision-making processes faster, more accurate, and more efficient. Digitization also increases transparency in services to the community while supporting the creation of modern school governance.
5) Strengthening a Sustainable Quality Culture; the future MBS will not only focus on achieving academic targets, but also on the formation of **quality culture** through a cycle of planning, implementation, evaluation, control, and continuous improvement. Schools are required to establish a consistent internal evaluation system, use measurable performance indicators, and use evaluation results as the basis for program improvements. A strong culture of quality will enhance a school's ability to adapt to changing policies and community needs.
6) Multi-party Collaboration (Collaborative Governance); the future of MBS increasingly emphasizes the importance of **collaborative governance**, a collaboration between schools, government, business and industry, universities, communities, and parents. This collaboration expands access to resources, innovation, teacher training, and the development of learning programs relevant to 21st-century needs. Strong partnerships also increase community participation in school oversight and development,

creating more inclusive and accountable governance.

7) Developing Digital Competencies for Principals and Teachers: The transformation of SBM requires principals and teachers to possess digital leadership competencies, data literacy, information analysis skills, and the ability to utilize educational technology. Continuous professional development through training, learning communities, and practice-based learning is a key requirement to ensure human resources are able to keep pace with technological developments and effectively manage organizational change.
8) Sustainable and Inclusive School Governance: Going forward, SBM is directed towards supporting the achievement of inclusive, equitable, and sustainable education. Schools will not only pursue academic achievement but also pay attention to the welfare of the school community, student diversity, character education, mental health, and environmental sustainability. This approach aligns with the Sustainable Development Goals (SDGs), which place quality education as a global development priority.

School-Based Management (SBM) will evolve into a more flexible, responsive, and sustainable education management system. This change is characterized by the increasing use of digital technology, data analysis as a basis for decision-making, and strengthened collaboration between principals, teachers, education staff, parents, the community, and various strategic partners. This development positions schools as learning organizations capable of adapting to policy dynamics, student needs, and the challenges of 21st-century education.

The future success of SBM implementation depends heavily on the readiness of human resources, particularly in developing leadership competencies, digital literacy, and a sustainable culture of

quality. Therefore, schools need to build transparent, accountable, innovative, and evidence-based governance systems so that every policy and program implemented can have a real impact on improving the quality of educational services. Thus, SBM is not only a school management approach but also a key strategy for realizing quality, inclusive, and sustainable education in line with the demands of global development.

3.5 Conclusion

School-Based Management (SBM) is an educational management approach that provides schools with the freedom to manage resources, formulate policies, and implement programs tailored to the needs and characteristics of their educational units without neglecting the direction of national education policy. The implementation of SBM is based on the principles of autonomy, participation, transparency, accountability, and continuous quality improvement, allowing schools the freedom to develop innovations while simultaneously being accountable for the quality of the educational services they provide. With a strong philosophical, legal, theoretical, sociological, managerial, and empirical foundation, SBM serves as a strategic framework for building effective, democratic, and results-oriented school governance.

The success of SBM implementation is determined not only by the extent of the school's authority, but also by the ability of all school members to apply various complementary management approaches. A decentralized, participatory, quality-based approach, transformational leadership, data-driven decision-making, collaboration, human resource empowerment, and the use of digital technology create a management system that is adaptive to change. The synergy between these components enables schools to develop

more contextual policies, increase the effectiveness of resource use, and strengthen an organizational culture that supports continuous quality improvement.

The development of the SBM model demonstrates that school governance is increasingly oriented toward strengthening innovation, digitalization, and utilizing data as a basis for decision-making. However, the success of its implementation remains influenced by various factors, such as the quality of principal leadership, the competence of educators and education personnel, the availability of facilities and infrastructure, policy support, and community involvement. Conversely, limited resources, low stakeholder participation, and resistance to change remain challenges that need to be addressed through strengthening institutional capacity and developing a culture of quality.

In the future, SBM is projected to evolve into a more technology-based, collaborative, inclusive, and evidence-based school management system. The integration of artificial intelligence, digital leadership, data-driven governance, and multi-stakeholder partnerships will further strengthen schools' ability to respond to the dynamics of 21st-century education. Therefore, strengthening human resource competencies, implementing continuous evaluation, and the commitment of all stakeholders are key factors in realizing schools that are adaptive, innovative, and competitive, and capable of providing quality and sustainable educational services.

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Chapter 4
School-Based Management (SBM) Process

4.1 Introduction

School-Based Management (SBM) is a strategic approach to education management that provides schools with the autonomy to optimize their full potential to improve the quality of educational services. Through the implementation of SBM, schools have the authority to determine policies, develop programs, and manage resources based on the needs and real conditions of the school environment. This approach emphasizes the importance of involving various parties, such as principals, teachers, education staff, students, parents, and the community, in the decision-making process, thus creating democratic, transparent, and accountable educational governance.(Mulyasa, 2022)

The success of SBM implementation is greatly influenced by the school's ability to systematically carry out management functions. School management is not simply achieved through program development; it requires a process that encompasses thorough planning, clear division of tasks, mobilization of all resources, effective direction, coordination between school elements, oversight of program implementation, and continuous innovation development. Each of these stages is interconnected, serving as the foundation for creating an effective school organization capable of optimally achieving educational goals.(Bush, 2022)

In practice, the SBM process requires data-driven management and clear performance indicators. Schools must have the ability to identify needs, set program priorities, measure success, and conduct evaluations as a basis for continuous improvement. Data-driven

decision-making enables schools to produce policies that are more targeted and aligned with student needs. Therefore, the implementation of SBM is not only related to administrative aspects but also reflects efforts to build a culture of quality across all school activities.(Hallinger, 2023)

The increasingly dynamic educational environment also demands that schools be able to adapt through various forms of innovation. Innovation in SBM can be realized through the development of learning programs, the use of information technology, improving teacher competency, strengthening collaboration with the community, and creating a learning environment that supports student development. Schools that can creatively manage change will be better prepared to face educational challenges and improve the quality of services provided to the community.(OECD, 2023)

Thus, the School-Based Management process needs to be understood as a series of integrated management activities oriented toward improving the quality of education. Planning, organizing, mobilizing, providing direction, coordinating, controlling, and innovating are essential elements that must be implemented in a measurable manner so that schools can achieve independence in management and deliver quality educational services. Understanding this process serves as a foundation for principals and all school members in building an effective, adaptive, and sustainable education management system.

4.2 Planning in MBS

4.2.1 The Nature of Planning in MBS

Planning is a management function that serves as the basis for determining the direction, goals, and strategies for school

development. From a School-Based Management (SBM) perspective, planning is not only interpreted as an administrative activity in the form of preparing school program documents, but as a systematic decision-making process for managing school resources to achieve improvements in educational quality. Through good planning, schools can set development priorities based on real conditions, student needs, and the demands of the ever-changing educational environment.(Z. S. A. K. M. S. S. I. R. Sardawi, 2026) (Vita Ari Wijaya, 2026)

School-Based Management (SBM) provides schools with the autonomy to develop programs tailored to their characteristics and potential. Therefore, the planning process must be contextual, taking into account the school's internal capabilities, community support, and national education policies. SBM planning positions schools as learning organizations capable of identifying problems, determining alternative solutions, and implementing continuous improvement through the involvement of the entire school community.

Planning in School-Based Management (SBM) is a fundamental stage that determines the success of school management and development. Planning goes beyond producing work program documents, but also becomes a strategic process in setting goals, optimizing resources, and designing quality improvement measures based on the needs and characteristics of the school. Through the application of the principle of autonomy in SBM, schools have the opportunity to develop policies and programs relevant to their internal and external conditions. By collaboratively involving various school elements, planning can be an instrument for creating effective, change-responsive, and sustainable educational governance that improves the quality of learning and educational services.

4.2.2 Planning Objectives in MBS

Planning in SBM aims to create more effective, efficient, and quality-oriented school management. Through the planning process, schools can determine desired goals, prioritize programs, and appropriately manage resource use based on needs.

Specifically, the planning objectives in MBS include:

1) Providing direction for school development; Planning helps schools provide clear guidance in achieving their vision, mission, and educational goals. Each designed program is linked to the target of improving the quality of educational services.
2) Generating needs-based decisions; Planning allows schools to develop programs based on an analysis of actual conditions, rather than simply following administrative policies. The use of school data, such as quality evaluation results and Education Report Cards, can serve as a basis for determining more targeted interventions. (EMI HIDAYAH, 2025)
3) Improving the effectiveness of resource management; Schools can optimize the use of teaching staff, infrastructure, budgets, and various environmental potentials to support the achievement of educational goals.
4) Building school accountability; Systematic planning provides clarity regarding programs, success indicators, funding, and evaluation mechanisms so that school management can be accounted for to the community.

Planning in School-Based Management (SBM) is a fundamental step in realizing targeted school management oriented toward improving the quality of education. Through thorough planning, schools can formulate program priorities, determine strategies for achieving goals, and align resource utilization with the conditions and needs of the educational unit. Furthermore, using data and evaluation

results as a basis for planning enables schools to make more informed and relevant decisions. With structured planning, each school program has a clear direction, achievement indicators, and evaluation mechanisms, thereby increasing transparency, accountability, and independence in achieving sustainable educational quality.

4.2.3 Planning Principles in MBS

In order for school planning to run effectively, there are several principles that need to be considered, including:

1) Participatory; Planning in SBM must involve various parties who have a stake in the school's progress. The principal, teachers, education staff, school committee, parents, and the community need to be given space to express ideas and needs. This involvement will increase a sense of ownershipto school programs so that implementation is easier.
2) Data-Driven: School planning must be based on objective and accountable information. Data on student learning outcomes, school environmental conditions, teacher competencies, and previous program achievements are crucial in determining development strategies. Data-driven planning helps schools avoid making decisions based solely on assumptions and fosters a culture of continuous improvement. (Seni Fitriani, 2026)
3) Transparent and Accountable: Every designed program needs to have clear objectives, success indicators, funding sources, and oversight mechanisms. Transparency in planning will increase school and community trust in education management.
4) Flexible and Contextual: Each school has different characteristics, including student population, school culture, and social environment. Therefore, SBM planning must be flexible to adapt to local needs without compromising national education

standards.

5) Quality-Oriented: School planning must be geared toward improving the quality of educational processes and outcomes. Programs should not only focus on administrative tasks but also have a tangible impact on learning, student development, and educator professionalism.

Planning in School-Based Management (SBM) is a strategic process that plays a role in determining the direction of school development and quality improvement. The success of planning is determined not only by program development but also by the involvement of various parties, the use of data as a basis for decision-making, and the application of the principles of transparency and accountability in its management. Each school needs to develop a plan that is appropriate to the characteristics and needs of its environment so that the designed program can be implemented effectively. With targeted, adaptive planning that focuses on quality improvement, schools are able to create more effective education management and support the achievement of learning goals and the sustainable development of students.

4.2.4 Planning Stages in MBS

The following are several planning stages in MBS, including:

1) School Condition Analysis: The initial planning stage involves identifying the overall condition of the school. Schools need to analyze their strengths, weaknesses, opportunities, and challenges. This analysis can be conducted through school self-evaluation, the use of educational quality data, and a review of student needs. Condition analysis provides the basis for schools to determine realistic programs that address the challenges they face. Data-driven planning has been shown to help schools

establish more targeted development priorities.

2) Determining the School's Vision, Mission, and Goals: The vision and mission serve as the strategic direction for the implementation of education at the school. Their development needs to be done through a collaborative process to reflect the shared hopes of the entire school community. The school's goals are then broken down into more specific targets so they can be easily translated into work programs.
3) Developing Priority Programs: Based on the results of the needs analysis, schools determine the programs that will have the greatest impact on improving quality. These programs can include strengthening learning, improving teacher competency, developing school culture, improving student services, and strengthening partnerships with the community. School programs are then outlined in planning documents such as the School Work Plan (RKS), Annual Work Plan (RKT), and School Activity and Budget Plan (RKAS).
4) Establishing Success Indicators: Every program needs clear indicators to measure its success. Indicators can include improvements in academic achievement, student character development, teacher competency, or the effectiveness of school resource management.
5) Determining Resource Allocation: The final stage of planning is determining the resources required to implement the program. Schools must ensure that the use of the budget and other resources supports the primary priority of improving the quality of education.

Planning in School-Based Management (SBM) is a crucial foundation for directing school management to ensure its effectiveness and quality improvement. The planning process involves

several stages: identifying school conditions based on real-world data and needs, formulating a vision, mission, and objectives as development guidelines, determining priority programs aligned with the school's challenges and potential, establishing achievement indicators as benchmarks for success, and managing resource utilization appropriately. With structured planning involving various parties, schools can optimize resource management, improve the quality of educational services, and realize school independence in achieving established educational goals.

4.2.5 The Principal's Role in MBS Planning

The principal holds a strategic position as a director and driving force in the SBM planning process. The principal is not only responsible for drafting planning documents, but also for fostering a culture of collaboration, ensuring the use of data in decision-making, and overseeing the implementation of school programs.

Effective principal leadership connects strategic planning with day-to-day school management practices. In the context of data-driven planning, principals play a crucial role in interpreting information, setting priorities, and ensuring that programs have an impact on improving the quality of education.

In the implementation of School-Based Management (SBM), the principal is the primary actor determining the direction and success of the school planning process. The principal's role extends beyond developing work plans, but also encompasses the ability to build synergy among school members, optimize data utilization, and ensure each program is implemented according to established objectives. Visionary and evidence-based leadership enables the principal to make more informed decisions, establish school

development priorities, and encourage continuous improvement in educational quality.

Planning in School-Based Management (SBM) is a fundamental stage that determines the direction and success of school management. Planning is not merely an administrative activity in developing work programs, but a strategic process for identifying needs, setting goals, determining development steps, and optimally managing school resources. Through targeted planning, schools can design various programs that are appropriate to the conditions, potential, and challenges they face.

In implementing SBM, planning must prioritize the principles of participation, transparency, the use of relevant data, and a focus on improving educational quality. The involvement of principals, teachers, education staff, school committees, and the community is crucial to ensuring that the designed program aligns with school needs and receives support for its implementation.

Thus, planning in SBM serves as a basis for decision-making to create independent, effective, and sustainable school governance. Systematic, needs-based planning will help schools improve the quality of educational services, strengthen a culture of quality, and more optimally achieve educational goals.

4.3 Organizing in MBS

4.3.1 Concept of Organizing in MBS

Organizing is one of the main functions of management that plays a role in organizing, dividing, and coordinating various school resources so that educational goals can be achieved effectively and efficiently. In the context of School-Based Management (SBM), organizing is not only related to the preparation of a formal organizational structure, but also includes granting authority, dividing

tasks, strengthening cooperation, and involving all school members in decision-making. SBM provides autonomous space for schools to manage resources based on the needs and characteristics of the school environment so that the organizing process becomes more flexible, participatory, and oriented towards improving the quality of education.(Hasnadi, 2024)

In its implementation, the organization of MBS positions the principal as a leader tasked with establishing a clear work system, distributing responsibilities, and ensuring that each school component understands its role in achieving the school's vision and mission. The principal functions not only as an administrator but also as a driving force for collaboration between teachers, education staff, students, the school committee, and the community. Strengthening this leadership is crucial because the success of MBS is greatly influenced by the school's ability to manage the organization democratically and transparently.(Ika Rifa Rofifah, 2023)

Organization within School-Based Management (SBM) is a crucial step in optimizing school management through resource allocation, role allocation, coordination between school elements, and strengthening the participation of all stakeholders. Through effective organization, schools have the ability to manage their authority independently according to their needs and characteristics to support the achievement of educational goals. In this process, the principal plays a strategic role as a director and facilitator who builds collaborative work systems, ensures clarity of responsibilities, and creates an open and accountable organizational environment. Thus, participatory organization within SBM can serve as a foundation for improving the effectiveness of school management and the quality of education.

4.3.2 Objectives of Organizing in MBS

Organization within the School-Based Management System (SBM) aims to create effective school governance through the systematic allocation of roles and responsibilities. With good organization, each school member understands their duties, authorities, and contribution to supporting school programs. This can reduce overlapping work, accelerate coordination, and increase accountability in the implementation of educational activities.

Specifically, the objectives of organizing in MBS include:

1) Establishing a clear school work structure; The school organizational structure serves as a guideline for regulating work relationships between departments, such as the principal, vice principal, teachers, administrative staff, school committee, and student organizations.
2) Distributing tasks and authority proportionally; Organization allows each individual to receive responsibility according to their competence and capacity so that work can be carried out optimally.
3) Increasing participation of the school community; SBM emphasizes the involvement of various parties in school management. Therefore, organization becomes a means of building a collaborative culture in achieving educational goals.
4) Creating effective coordination; Coordination is necessary so that various school programs run in harmony and are not carried out separately.

The implementation of MBS shows that school management involving various elements of the school organization can support improving the quality of education because each party has a role in planning, implementing, and evaluating school programs.(Jhanatri & Ahyani, 2024)

Organization in School-Based Management (SBM) plays a crucial role in ensuring school management is directed, effective, and collaborative. Through the organization's structure, the division of tasks according to competencies, and the clear delegation of authority, each school element can optimally fulfill its role in supporting the achievement of educational goals. Furthermore, good organization strengthens communication, coordination, and the involvement of all school members in every planned program. Therefore, organization is the primary foundation for SBM implementation because it creates a transparent, accountable school management system that is oriented toward continuously improving the quality of education.

4.3.3 Organizing Principles in MBS

The following are the principles of organizing in MBS, including:(Yogi Maulana Wahyudin, 2024)

1) Principle of Division of Tasks (*Division of Work*); The division of tasks is the main basis for organizing a school. Each individual is given responsibilities based on their competence, experience, and the needs of the school organization. In SBM, the division of tasks is not only done administratively, but also takes into account the professional abilities of teachers.and educational staff so that school programs can run optimally.
2) The Principle of Authority and Responsibility: Every task assigned must be accompanied by clear authority. Granting authority allows teachers and education personnel to make decisions within their areas of responsibility, while still maintaining accountability for the results of their work.
3) The Principle of Coordination: Coordination is a crucial element in maintaining integration between school programs. Through good coordination, schools can avoid role conflicts, improve

communication, and ensure all activities support the same goals.

4) The Principle of Participation; School-Based Management (SBM) emphasizes that schools are not solely the responsibility of the principal or teachers, but rather the shared responsibility of all educational stakeholders. Therefore, school organization must create opportunities for participation by the school committee, parents, the community, and students in various school activities.

Organization in School-Based Management (SBM) is a strategic process for managing school resources so that each element can fulfill its role in a focused manner in achieving educational goals. The application of the principle of division of tasks based on competence, the granting of authority balanced with responsibility, strengthening coordination among school members, and the active involvement of all stakeholders are crucial factors in creating effective school management. Through systematic and collaborative organization, schools can improve organizational performance, strengthen a culture of cooperation, and support the achievement of sustainable improvements in educational quality in accordance with the characteristics and needs of the school.

4.3.4 Organizing Components in MBS

Organizing in MBS includes several main components, namely:

1) School Organizational Structure: The organizational structure provides an overview of working relationships, lines of coordination, and the division of authority within the school. This structure should be simple, flexible, and tailored to the school's needs.
2) Division of Roles and Duties; Schools need to determine the main tasks and functions of each organizational element, such as the principal as leader, teachers as learning implementers, education

staff as administrative support, and the school committee as strategic partners.

3) Human Resource Management; Organization also relates to the placement of human resources according to competency. Teachers and educational staff need to be given opportunities to develop their professionalism through training, teamwork, and school development activities.
4) Communication and Coordination Mechanisms; Effective communication is necessary so that information regarding school programs, policies, and evaluations can be understood by all school members.

Organization within School-Based Management (SBM) is a crucial component of building effective school governance through structured management, division of responsibilities, human resource capacity development, and strengthening communication patterns among school members. Through proper organization, each school element can understand its role and authority, enabling it to work synergistically in implementing educational programs. Thus, organization based on collaboration and school needs can foster more independent, adaptive school management, oriented toward continuously improving educational quality.

4.3.5 The Role of the Principal in Organizing MBS

The principal holds a strategic position as the director and manager of the school organization. In this organizational role, the principal is responsible for establishing the work structure, determining the division of tasks, building a culture of collaboration, and ensuring that every member of the organization works toward the school's goals.

The principal's leadership in MBS must be participatory, providing opportunities for teachers and educational staff to be involved in the decision-making process. This approach can increase a sense of ownership (*sense of belonging*) towards school programs and strengthening shared commitment to improving the quality of education.

The successful implementation of School-Based Management (SBM) is greatly influenced by the principal's ability to optimally carry out organizational and leadership functions. The principal serves not only as an administrative manager but also as a driving force capable of coordinating school resources, building cooperation among school members, and creating a work system that supports the achievement of the educational vision and goals. Through a democratic leadership style and the participation of all school elements, the principal can increase involvement, a sense of responsibility, and a shared commitment to improving the quality of educational services.

4.3.6 Implementation of MBS Organization in Elementary Schools

At the elementary school level, MBS organization can be implemented through several activities, including:(Rahman, 2024)

1) Arranging the school organizational structure according to needs
2) Formation of a school development team
3) Division of teacher tasks in academic and non-academic activities
4) Formation of teacher working groups (*KKG*) to improve professionalism
5) Involvement of school committees in developing school programs
6) Formation of a school evaluation and quality improvement team.

Through good organization, schools are able to create a focused work system, increase the effectiveness of resource use, and build a sustainable quality culture.

Organization in the implementation of School-Based Management (SBM) at the elementary school level plays a crucial role in ensuring all school components work synergistically to achieve educational goals. Through organizational structure, optimization of task allocation, strengthening collaboration among educators, stakeholder involvement, and systematic quality evaluation, schools can manage resources more effectively and efficiently. With proper organization, SBM not only supports the creation of professional school governance but also encourages the formation of a culture of continuous quality improvement in accordance with the needs and characteristics of the school.

4.4 Actuating in MBS

4.4.1 Actuating Concept in MBS

Movement (*actuating*) is one of the main functions of management that plays a role in changing planning and organizing into real actions through the process of leading, directing, motivating, and coordinating all organizational resources so that the stated goals can be achieved. In the context of School-Based Management (SBM), mobilization is an important stage because the success of a school program is not only determined by planning documents, but also the ability of the principal to mobilize teachers, education staff, students, school committees, and the community to actively participate in improving the quality of education.(Umy Nadrah Simatupang, 2024)

The movement in MBS places the principal as the learning leader (*instructional leader*) and change manager tasked with building shared commitment, creating a collaborative work culture, and

ensuring that every member of the school community understands their role in achieving the school's vision and mission. The principal not only provides instructions but also acts as a facilitator, encouraging innovation, empowerment, and the involvement of all stakeholders. Recent research shows that the effectiveness of SBM implementation is greatly influenced by the principal's leadership competency, stakeholder engagement, and ability to build a positive organizational culture.(Fauzia Salmi, 2024)

Movement (*actuating*) in School-Based Management (SBM) is a managerial aspect that plays a crucial role in ensuring that all school plans and policies can be implemented effectively. This process is not only related to providing direction, but also includes efforts to build motivation, communication, coordination, and collaboration among school members to achieve educational goals. In its implementation, the principal holds a strategic position as the main driver capable of creating a supportive work climate, increasing the participation of all stakeholders, and fostering a culture of quality within the school environment. Therefore, the success of SBM implementation is largely determined by the principal's leadership ability in empowering school resources collectively and sustainably to realize improvements in the quality of education.

4.4.2 Mobilization Objectives in MBS

The primary goal of mobilization in SBM is to ensure that all school components work synergistically to improve the quality of educational services. Mobilization aims to build collective awareness that improving school quality is a shared responsibility, not solely the responsibility of the principal or a specific teacher.

Specifically, the objectives of mobilization in MBS include:(Sugianto, 2024)

1) Building work motivation for school residents; The principal needs to create a supportive work environment, provide appreciation, and increase a sense of belonging towards school programs.
2) Optimizing the roles and responsibilities of each individual; Every teacher and education staff member needs to understand their duties according to the school's organizational structure so that the program can run effectively.
3) Increasing community and stakeholder participation; MBS emphasizes the importance of parental, school committee, and community involvement in supporting the provision of education.
4) Creating a collaborative and innovative school culture; The movement is directed at building cooperation, open communication, and readiness to face educational change.

Mobilization in School-Based Management (SBM) is a crucial stage in actualizing school plans through the active involvement of all educational elements. This process focuses not only on providing direction but also on building motivation, commitment, and a shared awareness that improving educational quality is a collective responsibility. Through effective leadership, clear role allocation, and harmonious working relationships between schools and the community, mobilization can create a participatory, adaptive educational environment oriented toward improving the quality of educational services. Therefore, the success of SBM is largely determined by the school's ability to mobilize all resources in an integrated manner to achieve its stated educational goals.

4.4.3 Principles of Movement in MBS

Some of the principles of movement in MBS that you need to know include:(Riadiono, 2024)

1) Principles of Participatory Leadership: Mobilization in SBM must be carried out through leadership that involves various parties in decision-making. The principal needs to open up dialogue and provide opportunities for teachers and stakeholders to express ideas and solutions to school problems. A participatory approach will increase commitment because the school community feels they have contributed to the program's success.
2) Principles of Effective Communication: Communication is a crucial factor in the mobilization process. The principal must be able to clearly convey the school's goals, policies, division of tasks, and expectations to all members of the school community. Effective communication can reduce conflict, improve coordination, and strengthen working relationships among members of the organization.
3) Principles of Motivation and Empowerment: Motivation involves more than just providing direction, but also motivating each individual to develop. Principals need to empower teachers through training, mentoring, awards, and professional development to increase the capacity of the school's human resources.
4) The Principle of Collaboration and Partnership; MBS emphasizes that schools are open organizations that require support from various parties. Therefore, the movement must be able to build partnerships between schools, parents, the community, and related institutions to support the achievement of educational goals.

Mobilization in School-Based Management (SBM) is a crucial step in ensuring all school resources work synergistically to achieve educational goals. Effective implementation of mobilization requires leadership that fosters participation, fosters open communication,

enhances motivation and competency within the school community, and strengthens collaboration with various stakeholders. Implementing these principles creates a collaborative work environment, enhances shared responsibility, and supports adaptive school governance that is oriented toward sustainable improvement in educational quality.

4.4.4 Mobilization Strategy in MBS Implementation

For the Mobilization Strategy in MBS Implementation, it includes:(Nirmayanthi, 2024)

1) Building a Shared Vision and Commitment: The initial stage of mobilization involves aligning the perceptions of the entire school community regarding the vision, mission, and goals to be achieved. The principal needs to ensure that the school program is not only understood administratively but also becomes a shared commitment in daily practice.
2) Implementing Coordination and Delegation of Tasks: Principals need to establish a clear work system by dividing tasks according to each individual's competency. Proper delegation will increase work effectiveness because each individual has measurable responsibilities.
3) Providing Motivation and Professional Empowerment: Teachers, as the primary implementers of the educational process, require ongoing support. This empowerment can be achieved through academic supervision, learning communities, training, learning reflection, and appreciation for teacher innovation.
4) Developing a Positive School Culture: The initiative is aimed at creating a school culture that supports discipline, collaboration, creativity, and a focus on quality. This positive culture will become an internal strength for the school in implementing the

MBS program sustainably.

5) Involving School Stakeholders: Implementing SBM requires the active involvement of the school committee, parents, and the community. This involvement can be achieved through communication forums, program collaboration, resource support, and joint evaluation of school programs.

The mobilization in the implementation of School-Based Management (SBM) is a process of directing, empowering, and synergizing all the potential possessed by the school so that educational goals can be optimally achieved. The success of this process is influenced by the principal's ability to build understanding of the school's vision and mission, manage the division of tasks according to competencies, increase the motivation and professionalism of educators, foster a conducive school culture, and strengthen partnerships with various stakeholders. The synergy between these elements will create a collaborative work environment, increase the participation of all school members, and support the implementation of school programs effectively, adaptively, and sustainably in order to improve the quality of educational services.

4.4.5 The Role of the Principal in Implementing MBS

The principal holds a strategic position as the primary driver in the implementation of MBS. The principal's role includes:(Merchant, 2024)

1) **As a change leader**, namely directing schools to be able to adapt to developments in education.
2) **As a motivator**, namely building work enthusiasm and increasing the self-confidence of school residents.
3) **As a communicator**, namely building harmonious relationships through open communication.

4) **As a facilitator**, namely providing resource support so that school programs can run.
5) **As an evaluator**, namely ensuring that program implementation is in accordance with the objectives that have been set.

The success of SBM depends heavily on the principal's ability to integrate leadership, resource management, and empower the school community. A principal who can effectively mobilize the organization will create a school that is independent, transparent, and focused on improving the quality of education.

The implementation of School-Based Management (SBM) requires the leadership of a principal capable of effectively directing, coordinating, and empowering all school components. The principal's role extends beyond decision-making to building a collaborative work culture, facilitating school needs, maintaining open communication, and monitoring and evaluating program implementation. The synergy of these various roles is crucial for achieving effective school governance, increasing school community participation, and encouraging sustainable improvements in educational quality.

4.4.6 Mobilization Challenges in MBS

The implementation of the driving function in MBS faces several challenges, including:(Judelyn Malasaga, 2024)

1) **Lack of commitment from some school residents** towards change and innovation.
2) **Uneven distribution of principals' managerial skills** in managing change.
3) **Suboptimal communication** between schools and stakeholders.
4) **Limited resources**, both facilities and financial support.
5) **Work culture that is still individualistic**, thus hindering

collaboration.

Therefore, mobilization in MBS requires adaptive leadership, a strong organizational culture, and an effective communication strategy so that all school components can participate optimally.

Drive function (*actuating*) in School-Based Management (SBM) is an important factor in ensuring that all school members play an active role in achieving educational goals. However, its implementation is still influenced by various obstacles, such as the less than optimal readiness of human resources to accept change, differences in leadership capacity of school principals, weak coordination with stakeholders, limited facilities and funding, and a work culture that does not fully support collaboration. Thus, the success of the movement in SBM requires leadership that is responsive to change, strengthening a participatory work culture, open communication, and synergy between all elements of the school so that the educational management process can run effectively and sustainably.

4.5 Directing in MBS

4.5.1 Definition of Directing

Giving instructions (*directing*) is a management function that plays a role in mobilizing all school resources to carry out tasks in accordance with planned objectives. In the context of School-Based Management (SBM), providing direction is not only in the form of instructions from the principal to teachers and education staff, but also includes the process of motivating, guiding, coordinating, building effective communication, and creating a collaborative work climate. Through this function, the principal acts as a learning leader (*instructional leader*) which is able to direct all school residents to

achieve continuous improvement in the quality of education.(Bandur, 2022)

The provision of direction in SBM is implemented based on the principles of participatory, transparent, accountable, and quality-oriented. The principal does not rely solely on formal authority but also develops inspirational leadership so that teachers, education staff, students, the school committee, and parents share a commitment to the school's vision, mission, and programs. Thus, the direction process serves as a means to unify perceptions and increase the motivation of all school members to achieve established performance targets.(Ade Andriyan, 2022)

Command giving function (*directing*) in School-Based Management (SBM) plays a strategic role in ensuring that all school components move synergistically toward achieving educational goals. Directing is not simply defined as delivering orders, but rather a leadership process that includes providing motivation, mentoring, coordination, and strengthening communication among school members. Through the principal's role as a learning leader, the school's function directing table to build shared involvement and responsibility in developing a collaborative school culture. Therefore, implementing effective guidance is key to enhancing the professionalism of the school community and supporting the achievement of sustainable educational quality.

4.5.2 Purpose of Providing Directions in MBS

Providing direction aims to ensure that all school activities run effectively and align with the school's vision and goals. Furthermore, direction aims to increase teacher and educational staff motivation, strengthen inter-personnel coordination, build a collaborative work culture, reduce errors in task execution, and encourage learning

innovation. In School-Based Management (SBM), successful direction will impact the quality of educational services, the effectiveness of decision-making, and the satisfaction of all school stakeholders.(Ade Andriyan, 2022) (Arespi Junindra, 2022)

In the perspective of School Based Management (SBM), providing direction is a crucial part of the school management process because it plays a role in unifying the steps of all organizational components to achieve educational goals. Directing is not simply a matter of delivering orders, but rather a leadership effort to build shared understanding, increase work commitment, and encourage each individual to optimally carry out their duties and responsibilities.

The success of the directive function depends heavily on the principal's ability to foster open communication, provide motivation, and foster a collaborative work environment. In the implementation of SBM, a participatory directive approach will strengthen the involvement of teachers and education personnel in decision-making and the implementation of school programs. Therefore, effective directives can be a strategy for improving the performance of the school community, strengthening a culture of quality, and supporting the achievement of sustainable improvements in the quality of educational services.

4.5.3 Principles of Giving Direction in MBS

Providing effective direction in MBS is carried out based on several principles, including:(Women, 2022)

1) The principle of open communication so that every policy can be understood by all school residents.
2) The principle of exemplary behavior, namely the principal is an example of discipline, integrity and professionalism.
3) The principle of participation provides opportunities for teachers

and education staff to express ideas and be involved in decision-making.

4) The principle of motivation that encourages the growth of work enthusiasm through appreciation, recognition and coaching.
5) The principle of empowerment that gives teachers the trust to develop creativity and innovation in learning.

These principles support the creation of a school organizational culture that is adaptive and oriented towards improving quality.

Providing direction in School-Based Management (SBM) is understood not only as the process of conveying instructions from the principal to the school community, but also as an effort to build shared understanding, commitment, and shared responsibility in achieving educational goals. The application of the principles of open communication, role modeling, participation, motivation, and empowerment demonstrates that the success of direction depends heavily on the school leader's ability to create collaborative relationships.

Analytical, the principal plays a strategic role as both a director and facilitator of change. Directives delivered through transparent communication can reduce misunderstandings in the implementation of school programs, while exemplary leadership can foster a positive work culture. Furthermore, involving teachers and other educational staff in decision-making fosters a sense of ownership over school policies, leading to more effective program implementation. Therefore, directives within the School-Based Management System (SBM) should be directed toward empowerment, not simply control, so that all school components can actively contribute to creating an innovative, responsive, and sustainable organizational culture that improves the quality of education.

4.5.4 Forms of Giving Instructions in MBS

Implementation of the directive function in schools can be carried out through various activities, such as routine coordination meetings, academic supervision, professional development of teachers, implementation of workshops (*workshop*), teacher working group discussions, mentoring in the development of learning materials, providing feedback on learning evaluation results, and awards for teachers and education personnel who demonstrate superior performance. Furthermore, the principal also needs to establish two-way communication with the school committee and parents to create synergy in supporting the implementation of education. These various forms of guidance will strengthen the commitment of all school members to achieving organizational goals.(Yani et al., 2023)

The directive function in school management is not only interpreted as the process of providing instructions, but also as a leadership effort to build motivation, engagement, and shared awareness in achieving educational goals. Various activities such as supervision, teacher coaching, professional discussions, and providing feedback demonstrate that directives serve as a means of continuously developing the capacity of the school community. In this context, the principal plays a crucial role as a driver of change, capable of creating open communication, strengthening collaboration, and building harmonious relationships with teachers, education staff, the school committee, and parents.

Thus, the success of the directive function depends heavily on the principal's ability to manage communications, provide professional support, and create a conducive work environment. Consistent directives not only increase the effectiveness of school program implementation but also strengthen the culture of quality

and the commitment of all school members to improving the quality of education.

4.5.5 The Principal's Role in Providing Direction

In SBM, the principal acts as a transformational leader capable of inspiring positive change within the school environment. The principal is tasked with clearly communicating the school's vision, motivating teachers to continuously improve their professional competencies, providing guidance on learning issues, facilitating teacher career development, and creating a conducive work environment. Effective leadership will increase community engagement, strengthen a culture of quality, and accelerate the achievement of the school's strategic goals.(Tajuddinur, 2022)

In the context of School-Based Management (SBM), the success of school management is greatly influenced by the principal's leadership capacity to direct change and build shared commitment. The principal's role as a transformational leader demonstrates that leadership focuses not only on administrative decision-making but also on the ability to mobilize the potential of human resources within the school. By conveying a clear vision, providing motivation, mentoring teachers, and creating a positive work culture, the principal can foster a sense of responsibility and active participation from all members of the school community.

Thus, principal leadership is a crucial factor in strengthening the implementation of SBM because it creates an adaptive, collaborative, and quality-improving school environment. An effective principal can be a catalyst for change by encouraging teacher professionalism, improving the quality of the learning process, and ensuring school programs are aligned with established strategic objectives. This demonstrates that the success of SBM depends not only on the

management system implemented but also on the quality of leadership in mobilizing all school components.

4.5.6 Factors Influencing the Success of Giving Directions

The success of the directive function is influenced by several factors, including the principal's leadership competency, interpersonal communication skills, school organizational culture, teacher motivation, reward systems, school community participation, and support from the school committee and community. Conversely, weak communication, low motivation, lack of coordination, and resistance to change can hinder the effectiveness of directives. Therefore, principals need to develop adaptive, collaborative, and data-driven leadership to ensure optimal directive processes.

The directive function in school management is not only related to providing instructions, but also the process of building alignment of vision, motivation, and commitment across all school resources. The success of directives is greatly influenced by the principal's ability to carry out a leadership role that is able to motivate, guide, and create harmonious working relationships. In practice, open communication and a supportive organizational culture are crucial factors in ensuring that every member of the school community understands their duties, responsibilities, and the shared goals they wish to achieve.

Conversely, obstacles such as low work motivation, weak coordination, and a lack of readiness for change indicate that direction cannot be implemented in a one-way fashion. Principals need to understand the internal conditions of the school and employ a flexible approach tailored to the needs of teachers and education staff. Therefore, an effective direction function must be built through adaptive, collaborative leadership based on accurate information to

improve school organizational performance and support the sustainable achievement of educational quality.

4.6 Coordination in MBS

4.6.1 Coordination Concept in MBS

Coordination (*coordinating*) is a management function that plays a role in integrating various activities, resources, and parties involved so that all components of the school organization move harmoniously towards predetermined goals. In the context of School-Based Management (SBM), coordination is a crucial process because schools are given greater authority in managing resources, making decisions, and developing programs according to the needs of the school and the community. Therefore, the success of SBM implementation depends heavily on the principal's ability to build communication, collaboration, and work harmony between school members and stakeholders.

Coordination in SBM is not only interpreted as the division of administrative tasks, but also as an effort to create synergistic working relationships between the principal, teachers, education staff, school committee, students, parents, and the community. Through effective coordination, each individual understands their role, shares responsibility, and is able to contribute to improving the quality of education. Recent research shows that coordination, communication, and supervision are critical factors in supporting the success of autonomy-based school management.(Lestari et al., 2024)

Coordination in School-Based Management (SBM) serves not merely as a task alignment mechanism but also as a strategic factor determining the effectiveness of education delivery at the educational unit level. Granting autonomy to schools requires coordination that integrates the various interests, resources, and roles of all school

members and stakeholders so that each program runs harmoniously and is oriented towards achieving shared goals. This situation indicates that the success of SBM implementation is influenced not only by the authority held by the school but also by the quality of communication, collaboration, and collective commitment built through effective coordination. Therefore, strengthening the coordination system is a crucial prerequisite for realizing participatory, adaptive, and sustainable school governance that can support optimal improvements in educational quality.

4.6.2 Coordination Objectives in MBS

Coordination in MBS has several main objectives, namely:

1) Unifying the work direction of all school components; Coordination aims to ensure that all school programs and activities run according to the vision, mission, and educational goals that have been formulated together.
2) Improving the effectiveness and efficiency of school management; With good coordination, schools can avoid overlapping work, conflicts of interest, and suboptimal use of resources.
3) Building a collaborative culture within the school environment; MBS emphasizes the active participation of all school members, making coordination an instrument for creating cooperation and a sense of ownership of school programs.
4) Strengthening school accountability; Coordination helps ensure that every activity is accountable through open communication, documentation, and joint evaluation.

The success of MBS is greatly influenced by the leadership of the principal in building stakeholder involvement and creating a shared commitment to improving school quality.

Coordination is a strategic function in School-Based Management (SBM). It not only plays a role in aligning program implementation but also integrates the roles of all school members and stakeholders in achieving educational goals. Systematic coordination enables every element of the school to work synergistically, resulting in more effective program implementation, more efficient use of resources, and the potential for overlapping tasks and conflict being minimized. Furthermore, good coordination encourages the creation of a collaborative culture characterized by open communication, active participation, and shared responsibility in all decision-making. Therefore, the effectiveness of SBM implementation depends heavily on the principal's leadership in building synergy, strengthening accountability, and ensuring that all school components share a shared commitment to continuously improving the quality of education.

4.6.3 Coordination Principles in MBS

Following are some of the coordination principles in MBS:

1) Principle of Unity of Purpose : Every element of the school must understand that all activities are directed toward achieving the same educational goals. The principal acts as a director who ensures the school's vision is translated into concrete programs.
2) Principles of Effective Communication: Coordination cannot occur without open, two-way, and ongoing communication. Information regarding school policies, programs, and evaluations must be conveyed clearly to avoid misunderstandings.
3) The Principle of Participation; School-Based Management (SBM) places the school community as an active participant in decision-making. Therefore, coordination must provide space for teachers, education staff, the school committee, and the

community to contribute.

4) The Principle of Program Synchronization; Every area in a school, such as curriculum, student affairs, facilities and infrastructure, and community relations, must be interconnected so that the school program runs in an integrated manner.
5) The Principle of Flexibility; Coordination in MBS must be able to adapt to changing student needs, technological developments, and societal demands.

Coordination is a managerial function that determines the effectiveness of School-Based Management (SBM) implementation. Successful coordination depends not only on a clear division of tasks but also on the school's ability to align its vision, build open communication, and optimize collaboration between school members and stakeholders. Through a unified purpose, every program and activity can be directed toward consistently achieving educational quality, while effective communication can minimize misunderstandings and expedite the decision-making process. Furthermore, the active participation of teachers, education personnel, school committees, parents, and the community strengthens accountability and improves the quality of autonomy-based school governance.(S. , A. Z. S. , K. K. , S. M. , & R. I. Sardawi, 2026)

Furthermore, coordination based on synchronized programs across sectors allows for optimal utilization of all school resources, ensuring that each activity supports each other and does not proceed in isolation. In the context of constantly changing education, the principle of flexibility is crucial for schools to respond adaptively to technological developments, educational policies, and student needs. Therefore, coordination within School-Based Management (SBM) is not only oriented towards smooth school operations but also serves

as a strategic instrument for building a collaborative culture, increasing management effectiveness, and realizing sustainable improvements in educational quality.

4.6.4 The Principal's Role in Coordinating MBS

The principal holds a strategic position as both a leader and manager, responsible for mobilizing all school resources. In their coordinating role, the principal plays the following roles:

1) School program coordinator; The principal ensures that each work unit has clear plans and targets.
2) Communication facilitator; The principal establishes discussion forums, work meetings, and joint reflections to resolve school problems.
3) Developing a culture of collaboration; The principal creates a work environment that supports collaboration between educators and educational staff.
4) Liaison between school and community; The principal establishes partnerships with the school committee and the community to ensure support for educational programs.

The adaptive leadership skills of school principals have also been shown to have a positive relationship with increasing teacher collaboration in elementary schools, because leaders who are able to build communication and organizational culture can strengthen professional cooperation between educators.(Komariah et al., 2024)

Based on the above discussion, it can be concluded that the success of the coordination function in school-based management is highly dependent on the principal's leadership capacity in synergizing all organizational components. The principal is not only tasked with coordinating work programs, but also building effective communication, fostering a collaborative culture, and strengthening

partnerships with various stakeholders. Coordination that is implemented in a planned and sustainable manner can improve integration among educators, education staff, school committees, and the community, so that each school program can be implemented more effectively and oriented towards improving the quality of education.

Furthermore, adaptive, collaborative, and organizational development-centered leadership has been shown to contribute to increased teacher professionalism, a positive school climate, and effective learning. These findings align with research by Komariah et al. (2024) and various recent studies that confirm that collaborative leadership by school principals is a key factor in creating effective, innovative, and sustainable schools.(Sun, 2024)

4.6.5 Coordination Strategy in MBS Implementation

Some strategies that schools can implement in implementing the coordination function include:

1) Regular Coordination Meetings: Schools need to hold regular meetings to discuss program developments, obstacles, and joint solutions.
2) Establishing School Working Teams: Dividing tasks into teams or committees helps ensure that each program has a clear person in charge.
3) Strengthening Digital Communications: Utilizing information technology can accelerate the delivery of information, documentation of activities, and monitoring of school programs.
4) Developing a Professional Teacher Community: Forums such as the Teacher Working Group (KKG) can serve as a means of academic coordination to improve the quality of learning.
5) Joint Evaluation and Reflection: Coordination needs to be

followed by evaluation so that schools know the effectiveness of the program and make continuous improvements.

Collaboration between teachers and school management is a crucial factor in creating educational management that is responsive to student needs. A collaborative approach enables schools to develop more relevant programs and increases the involvement of the entire school community.(Sofia, 2024)

Coordination is a management function that plays a role in uniting various activities, resources, and stakeholders in a school so that all programs can run in a focused and mutually supportive manner. Effective coordination depends not only on a clear division of tasks, but also on open communication, collaboration between personnel, and ongoing evaluation mechanisms. The implementation of strategies such as regular coordination meetings, the formation of work teams, the use of digital technology, strengthening the professional teacher community, and collective reflection can create synergies that strengthen the school's organizational performance. Thus, systematic coordination will increase the effectiveness of school management, encourage more informed decision-making, and produce educational services that are adaptive to student needs and oriented towards continuous quality improvement.

4.6.6 Coordination Challenges in MBS

Implementation of coordination in MBS faces several challenges, namely:

1) Suboptimal communication between school members; differences in perception and lack of openness can hinder the achievement of shared goals.
2) Limitations of the principal's managerial competencies; The principal needs good leadership, communication, and decision-

making skills.

3) Lack of community participation; MBS requires community support, but not all schools are able to build strong partnerships.
4) Resistance to change; Some school members may have difficulty accepting collaborative work patterns and shared decision-making.

Coordination in the implementation of School-Based Management (SBM) is a crucial element in building effective school governance because it involves aligning roles, communication, and responsibilities among various educational stakeholders. However, the implementation of coordination in schools still faces several obstacles, such as suboptimal communication, limited managerial capacity of school principals, low community involvement, and a lack of openness to change. These obstacles can impact the effectiveness of decision-making and the achievement of school goals if not managed through appropriate coordination strategies.(Narendas, 2024)

Therefore, it is necessary to strengthen participatory principal leadership, improve managerial competencies, and develop a school culture that is adaptive to change. Principals play a crucial role as coordinating agents, facilitators of collaboration, and decision-makers capable of creating a transparent and accountable school environment. Furthermore, community involvement needs to be continuously strengthened through strategic partnerships to ensure optimal School-Based School-Based Management (SBM) implementation in improving the quality of education services.(Kamaludin, 2024) (Agus Karjuni, 2026)

Thus, coordination within the School-Based Management System (SBM) must be viewed as an ongoing process that requires effective communication, visionary leadership, the participation of all stakeholders, and the readiness of the school community to face

change. Through strong coordination, schools can build more independent, democratic educational governance, and a focus on continuous quality improvement.(Widya Dwi Anggraini, 2024)

4.7 Controlling in MBS

4.7.1 Control Concept in MBS

Control is a management function that plays a role in ensuring that all school programs and activities run according to the plans, standards, and objectives that have been set. In the context of **School-Based Management (SBM)**Control is not simply defined as an administrative oversight process, but as a systematic effort to monitor, evaluate, provide feedback, and continuously improve all aspects of school management. Through this control function, schools can determine the level of program achievement, identify obstacles, and determine strategies for improving educational quality independently and participatory.

School-Based Management (SBM) grants schools broader authority in managing resources, making decisions, and developing programs tailored to student characteristics and needs. Therefore, control is a crucial tool to ensure school autonomy remains within the framework of accountability and quality improvement. Schools implementing SBM require effective control mechanisms to ensure that every policy, budget allocation, management of teaching staff, and implementation of learning is accountable to all stakeholders.(Timpal, 2024)

Control in School-Based Management (SBM) has a fundamental role as a guarantee mechanism that the entire educational management process runs effectively, efficiently, and in accordance with the direction of school policy. In a modern management perspective, control is no longer understood merely as an inspection

or error-finding activity, but rather as a strategic process to ensure alignment between planning, implementation, and achieved results. Through control activities, schools can measure performance, evaluate program success, and formulate corrective actions if gaps are found between targets and program realization.(Robbins, 2022)

In the implementation of SBM, the control function has a more participatory character because schools are given the authority to determine policies and manage resources based on local needs. This autonomy requires a strong control system to ensure that every decision made remains oriented towards improving educational quality and is accountable to the community. Therefore, control in SBM requires the involvement of principals, teachers, education staff, school committees, and other stakeholders through a continuous process of monitoring, evaluation, and reflection.(Mulyasa, 2021)

Furthermore, control in SBM is closely linked to the principles of accountability and school quality improvement. Schools, which have the authority to manage budgets, human resources, and learning programs, must be able to demonstrate that every activity they undertake has an impact on achieving educational goals. The control process can be implemented through the development of success indicators, collection of school performance data, program evaluation, and follow-up for improvements. This approach aligns with the concept of educational quality assurance, which emphasizes a continuous cycle of improvement through the stages of establishing, implementing, evaluating, controlling, and improving quality standards.(Higher Education Quality Assurance, 2025)

In the context of improving the quality of basic education, control also functions as an instrument for data-based decision-making. Schools don't rely solely on assumptions in determining policies, but rather use evaluation results as a basis for designing

improvement strategies. Through a consistent evaluative culture, schools can identify learning barriers, improve teacher professionalism, optimize resource use, and create educational services that are more responsive to student needs.(Full, 2020)

Thus, control (*controlling*) in SBM can be understood as a dynamic, reflective, and quality-improving management process. The success of control is determined not only by the existence of a supervisory system, but also by the ability of all school members to build a culture of quality, transparency, and shared responsibility. Therefore, control is a crucial component in ensuring that school autonomy through SBM can produce effective, accountable, and sustainable educational governance.

4.7.2 Control Objectives in MBS

Control in MBS has several main objectives, namely:

1) Ensuring the achievement of school goals; Control is carried out to ensure that the school's vision, mission, goals and strategic programs have been implemented in accordance with the school development plan.
2) Ensuring the effectiveness and efficiency of resource management; Schools need to ensure that human resources, infrastructure, finances, and technology are used optimally to support improvements in the quality of education.
3) Improving school accountability; Control helps schools be accountable for every decision and use of resources to the government, parents, community, and students.
4) Encourage a culture of continuous improvement; Control results serve as a basis for reflection to correct weaknesses and develop new innovations in school management.

Effective implementation of MBS requires the involvement of the principal, teachers, school committee, and community in the evaluation and decision-making process so that school quality improvement can take place sustainably.(Salmi, 2024)

Control in School-Based Management (SBM) is not only understood as a supervisory activity for the implementation of school programs, but is a strategic mechanism to ensure that all educational activities run in accordance with planning, quality standards, and the objectives of improving the quality of education. From the perspective of SBM, control has participatory characteristics because it involves various school stakeholders in the process of monitoring, evaluation, reflection, and decision-making. Thus, control becomes an important part of the quality management cycle that is oriented towards continuous improvement (*continuous improvement*).

The primary objective of control in SBM is to ensure the achievement of the school's vision, mission, and strategic programs through evaluation of the alignment between plans and implementation. Schools need a monitoring system capable of identifying successes and obstacles in program implementation, so that any corrective decisions can be based on data and actual conditions on the ground. This approach makes schools more adaptive to changing student needs, technological developments, and demands for improved educational quality.(Ah Khoriah, 2026)

Furthermore, control plays a role in ensuring the effectiveness and efficiency of school resource utilization. Management of human resources, finances, infrastructure, and technology must be directed toward optimally supporting the achievement of educational goals. Through a systematic control process, schools can prevent inappropriate resource use, increase management transparency, and

ensure that each program impacts the quality of learning.(Blessing, 2024)

Control within the School-Based Management System (SBM) also serves to strengthen school accountability. The autonomy granted to schools in decision-making must be balanced with responsibility for performance outcomes to the government, community, parents, and students. Therefore, information transparency, program reporting, and school committee involvement are crucial for ensuring transparent school management and community trust.

Furthermore, control results are not only used to identify deficiencies, but also serve as a basis for building a culture of reflection and innovation at school. Schools that implement MBS effectively make evaluation an organizational learning process (*learning organization*), namely the school's ability to continuously improve strategies, enhance the professionalism of educators, and develop educational services according to student needs. Thus, control is not merely an administrative activity, but rather a quality improvement instrument that supports the school's sustainable development.(Nurul Fadllillah, 2024)

Control in School-Based Management (SBM) is a strategic managerial process to ensure the implementation of school programs effectively, efficiently, transparently, and oriented towards improving the quality of education. Through monitoring, evaluation, and follow-up activities, schools are able to optimize resources, increase accountability, and build a sustainable culture of quality. The success of control in SBM is greatly influenced by collaboration between the principal, teachers, school committees, students, and the community as part of the education system. Therefore, control needs to be positioned as a reflective and innovative process that not only

measures program achievement but also encourages schools to continuously develop in accordance with the demands of changes in education.

4.7.3 Control Principles in MBS

The Control Principles in MBS include:

1) Data-Based Control; Control in SBM must be based on data and facts, not just perceptions. Data on student learning outcomes, teacher performance, budget utilization, and school program achievement form the basis for making improvement decisions. A data-driven approach enables schools to conduct objective evaluations and design quality improvement strategies that meet the school's actual needs. This practice aligns with the modern educational governance paradigm, which emphasizes evidence-based decision-making.
2) Transparency and Accountability: Control in SBM must be carried out openly and involve various parties. Transparency allows school members and the community to understand the school management process, while accountability ensures that each program is accountable. Community involvement through the school committee is a crucial part of creating a democratic and accountable control system. Stakeholder participation is a key characteristic of SBM because schools work not only internally but also build partnerships with the surrounding community. (Awwaliyah, 2024)
3) Oriented to Quality Improvement; Control is not aimed at finding errors, but rather at finding solutions to improve the quality of educational services. Therefore, the monitoring process must be accompanied by coaching, mentoring, and follow-up for improvements. In SBM practice, ongoing evaluation will help

schools develop learning innovations, improve teacher professionalism, and strengthen the school's culture of quality. (Maulana, 2024)

Based on the above description, it can be concluded that the control principles in School-Based Management (SBM) emphasize the importance of systematic, objective, and quality-improving school management. Data-based control serves as the primary foundation for decision-making, ensuring that every school policy is based on accurate and relevant evidence. Furthermore, transparency and accountability are necessary to build trust and ensure the involvement of all stakeholders in school management. Control in SBM serves not only as a supervisory process but also as a continuous improvement effort through evaluation, coaching, and follow-up, which can strengthen a culture of quality and enhance the quality of educational services in schools.

4.7.4 Control Stages in MBS

The following are several stages of control in MBS:

1) Establishing Performance Standards or Indicators: The first stage in control is determining the standards of success the school wishes to achieve. These standards can include: Learning quality standards, Student achievement targets, Teacher and education staff performance indicators, School budget utilization targets, and Education service standards. Establishing clear indicators helps schools objectively measure program success.
2) Conducting Monitoring: Monitoring is the activity of periodically monitoring the implementation of school programs. The principal and the management team collect information through: learning observations, academic supervision, administrative audits, work program evaluations, and coordination meetings. Monitoring

allows schools to detect obstacles early so that corrective actions can be taken immediately.

3) Conducting Evaluations; Evaluations are conducted to compare the results achieved with established standards. Evaluations in MBS can include: Student learning outcomes, teacher performance, school program evaluation, financial management evaluation, and community satisfaction evaluation. Evaluation results form the basis for developing subsequent school improvement programs.
4) Implementing Corrective Follow-Up Actions: The final stage is implementing corrective actions based on the evaluation results. These actions can include: Improving school programs, Training to improve teacher competency, Improving administrative systems, Optimizing resource utilization, and Developing learning innovations. Thus, control within the School-Based Management System (SBM) becomes part of a continuous cycle of quality improvement.

Control in School-Based Management (SBM) is a crucial component in ensuring the achievement of school goals through a continuous process of monitoring, evaluation, and improvement. Control is not only defined as an audit of program implementation, but also as a quality improvement strategy that allows schools to reflect on their performance and make data-based decisions. In its implementation, SBM control is carried out through four main stages: establishing standards or performance indicators, monitoring program implementation, evaluating achievement results, and following up on improvements. These stages help schools ensure that all resources, work programs, and educational services are aligned with the planned direction of quality development.(Rizki Yatul Hanifa, 2024)

Through systematic monitoring and evaluation activities, the principal, along with all stakeholders, can identify obstacles, measure program effectiveness, and determine appropriate corrective measures. Data-driven control also strengthens the school's culture of quality because every decision is based on an analysis of performance achievements, student needs, and the condition of the educational unit. Thus, control within the School-Based Management System (SBM) becomes part of a cycle of educational quality improvement that encourages transparency, accountability, participation, and innovation in sustainable school management.(Yunita Zana, 2024)

4.7.5 The Principal's Role in MBS Control

The principal plays a strategic role as a controlling leader in the implementation of SBM. The principal is responsible for developing an evaluation system, coordinating program implementation, and ensuring that all members of the school community contribute to quality improvement.

Effective principal leadership can create a collaborative, transparent, and results-oriented school culture. The principal acts not only as a supervisor but also as a facilitator, providing direction and support to teachers and other educational staff.(Fadilah, 2024)

Based on the above discussion, it can be concluded that the principal holds a strategic position as a controlling leader in the implementation of School-Based Management (SBM). The principal's role focuses not only on administrative oversight but also encompasses the ability to design evaluation systems, control the implementation of school programs, and optimize the involvement of all stakeholders to achieve sustainable improvements in educational quality. Effective principal leadership is a crucial factor in creating

participatory, transparent, and performance-driven school governance.

Furthermore, the principal acts as an agent of change, capable of building a school organizational culture through collaboration, teacher empowerment, and strengthening the capacity of educational staff. In the context of SBM, the success of control is determined not only by evaluation mechanisms, but also by the principal's ability to provide direction, support, and create a work environment that encourages innovation and continuous improvement. Therefore, adaptive and data-driven principal leadership is a key factor in realizing independent, effective schools that are oriented toward improving the quality of learning.

4.7.6 Implementation of MBS Control in Elementary Schools

In the context of elementary schools, MBS control can be implemented through the following activities:

Control Area	Implementation Form
Learning	Class supervision, evaluation of teaching materials, analysis of learning outcomes
Teacher	Performance assessment, teacher professional development
Learners	Monitoring academic and character development
Finance	Transparent evaluation of the use of school funds
Sarana prasarana	Inspection and maintenance of school facilities
Public relations	Evaluation of parent and school committee involvement

Control in School-Based Management (SBM) is a strategic step aimed at ensuring that all school programs are effective, efficient, transparent, and aligned with the goal of improving the quality of education. At the elementary school level, control is implemented through various aspects, namely learning through classroom supervision, evaluation of teaching materials, and analysis of learning outcomes; controlling teacher performance through assessment and ongoing professional development; monitoring student academic development and character; evaluating financial management in a transparent and accountable manner; inspecting facilities and infrastructure; and evaluating the involvement of parents and the school committee. The implementation of these controls is an important instrument in creating participatory school governance that is oriented towards improving quality.

Through continuous monitoring, evaluation, and follow-up, MBS control serves not only as a supervisory mechanism but also as a reflective effort to address weaknesses and develop the school's potential. Collaborative educational supervision can support the improvement of teacher competency, learning effectiveness, and the achievement of educational quality standards. Therefore, the success of MBS control depends heavily on the commitment of the principal, teachers, students, parents, and the community to building a sustainable culture of quality.(Nurman Mirmanto, 2024)

4.8 Innovation in MBS

4.8.1 The Concept of Innovation in School-Based Management (SBM)

Innovation in School-Based Management (SBM) is a systematic renewal effort undertaken by schools to create positive change in educational management through new ideas, strategies, methods,

technologies, and services that are more effective and relevant to student needs. From an SBM perspective, innovation is not only oriented towards the use of technology, but also encompasses changes in school organizational culture, teacher professional development, increased community participation, and strengthening data-driven decision-making. Schools, as learning organizations, need to have the ability to adapt to face the ever-evolving dynamics of education.(Budiman, 2024)

The implementation of innovation in MBS places schools as the center of change who has the authority to develop programs tailored to the characteristics and needs of the school environment. The principal acts as an innovative leader who encourages creativity within the school community, fosters collaboration, and creates an organizational climate open to change. Thus, innovation is a crucial strategy for improving the quality of educational services and achieving school goals sustainably.(Son, 2024)

Innovation in School-Based Management (SBM) is a strategic step for schools to transform their education management through the development of ideas, programs, technology, organizational culture, and decision-making systems that are more adaptive to change. SBM innovation is not only defined as the use of digital technology, but also as an effort to build school organizational capacity through enhancing teacher professionalism, collaborating with stakeholders, and implementing data-driven management to support improvements in education quality. Schools that develop a culture of innovation will be better prepared to face the challenges of dynamic education and deliver learning services tailored to student needs.(Susanto, 2024)

The successful implementation of innovation in SBM is greatly influenced by the principal's leadership as a change agent capable of

creating a shared vision, encouraging the creativity of the school community, building a collaborative culture, and optimizing available resources. The principal's role is not merely an administrator, but also an innovative leader capable of guiding the school into a responsive, independent learning organization oriented toward continuous quality improvement.(Iis Holisoh, 2025)

Thus, innovation in SBM is a crucial foundation for creating effective, accountable, and competitive schools. Through visionary leadership, the use of data to inform decision-making, and the active involvement of all school members and the community, innovation can strengthen school autonomy while sustainably improving the quality of education.(Aris Sabthazi, 2024)

4.8.2 The Nature of Innovation in MBS

Innovation in MBS has several main characteristics, namely:(Ilhami, 2025)

1) Focused on improving the quality of education; innovation must have a tangible impact on improving the quality of educational processes and outcomes. Schools need to evaluate various ongoing programs and then develop new strategies based on the needs of students, teachers, and the community.
2) Based on school needs (*school-based innovation*); Each school has different characteristics, so innovations in MBS cannot be applied uniformly. Schools are given space to develop programs that are appropriate to local potential, culture, resources, and problems.
3) Involving the entire school community; Successful innovation requires the involvement of the principal, teachers, education staff, students, parents, and the community. Collaboration is crucial because innovation involves more than just structural change, but also shifts in mindset and work culture.

4) Sustainable (*continuous improvement*); Innovation in MBS must be part of a continuous quality improvement cycle through planning, implementation, evaluation, and follow-up. This is in line with the principle of controlling educational quality through a continuous improvement approach.

Innovation in School-Based Management (SBM) is a strategy for improving educational quality that places schools at the center of decision-making based on the needs, potential, and characteristics of their respective environments. SBM innovation is not only defined as changes in school programs, but also as a process of transforming organizational culture through improved service quality, strengthened collaboration, and effective resource utilization. Schools implementing SBM-based innovation need to ensure that each program developed impacts the quality of learning and the achievement of educational outcomes.(Asyibli, 2024)

Furthermore, the success of innovation in SBM is greatly influenced by the involvement of all school stakeholders, including principals, teachers, education staff, students, parents, and the community. This collective participation is a crucial foundation for creating sustainable change, as educational innovation is not only about administrative aspects but also about shifts in mindset, leadership, and a culture of quality within the school environment.(Ah Khoriah, 2026)

Therefore, SBM innovation must be implemented through a continuous quality improvement cycle encompassing planning, implementation, evaluation, and follow-up to enable schools to adapt to evolving educational needs. Thus, innovation in SBM becomes a crucial instrument in realizing schools that are independent, responsive, collaborative, and oriented towards continuous improvement in educational quality.(Muhammad Ihsan, 2025)

4.8.3 Forms of Innovation in MBS

The forms of innovation in MBS include:

1) Digital-Based School Management Innovation; Technological developments are encouraging schools to undertake digital transformation in various aspects of management, such as information system-based school administration, student data management, learning monitoring, and communication between schools and parents. Digitizing school management can improve work efficiency, management transparency, and the quality of educational services if supported by adequate human resource competencies. (Gina Agustina, 2024) Examples of implementation: School academic information systems, digital report cards, application-based financial management, school quality dashboards, utilization of artificial intelligence for Education data analysis.
2) Learning Innovation; In MBS, schools have the authority to develop learning that is appropriate to the characteristics of students. Learning innovation can be carried out through a project-based learning approach (*Project Based Learning*), differentiated learning,*blended learning*, the use of digital media, and the integration of 21st-century skills such as creativity, critical thinking, communication, and collaboration. Learning innovation aims not only to improve academic outcomes but also to build meaningful learning experiences for students. Therefore, schools need to provide teachers with space to conduct pedagogical experiments and develop creative learning practices. (Habsy, 2024)
3) Principal Leadership Innovation; The principal in MBS has a role as *innovation leader* capable of driving organizational change. Innovative leadership is demonstrated through the ability to

formulate a vision for change, foster a creative culture, develop teacher capacity, and build networks with various parties. An innovative principal acts not only as an administrator but also as a facilitator of change, capable of creating a school environment that is adaptive to changing times.

4) Innovation in School-Community Partnerships; School-Based School Management (SBM) emphasizes the importance of community involvement in school management. Innovation can be achieved through strengthening school committees and collaborating with industry, universities, social organizations, and educational communities. These partnerships can support the development of school programs, the provision of learning resources, teacher competency improvement, and the strengthening of student character.

Innovation in School-Based Management (SBM) is a crucial strategy for schools to improve governance effectiveness, improve the quality of educational services, and improve their ability to adapt to increasingly complex educational environments. Various forms of innovation, such as digital transformation of school management, learning innovation, transformative principal leadership, and strengthening community partnerships, demonstrate that the success of SBM implementation depends not only on the school's authority to manage resources but also on its ability to create sustainable change. Digitizing school management through the use of information systems, technology-based data management, and educational data analysis can strengthen transparency, accountability, and evidence-based decision-making.*data-driven decision making*) in improving school quality.(Aris Defiana, 2025)

Furthermore, learning innovations within SBM provide teachers with the opportunity to develop more creative, contextual, and

student-centered pedagogical practices through the implementation of project-based learning, differentiated learning, and technology integration. These changes require the support of innovative principal leadership as a driver of organizational transformation, a developer of a culture of quality, and a facilitator of teacher competency improvement. The principal's digital leadership is crucial in ensuring that technology utilization is not merely administrative but impacts the quality of learning and school performance.(Seeing Halim, 2025)

Thus, innovation in SBM must be understood as a systemic change process involving the entire school community and stakeholders. Collaboration between the principal, teachers, students, parents, the community, and various external partners is the main foundation for building adaptive, independent schools oriented towards continuous quality improvement. Implementing innovations designed based on school needs and supported by human resource capacity will strengthen SBM's role as a strategic approach to addressing the challenges of 21st-century education.(Dede Latipah, 2026)

4.8.4 Innovation Implementation Strategy in MBS

In order for innovation to run effectively, schools need to implement the following strategies:

1) Identifying school needs and problems; Schools need to conduct condition analysis through school self-evaluation, student learning outcome data, teacher needs, and input from the community.
2) Preparation of an innovation plan; An innovation plan must have clear objectives, success indicators, required resources, and an implementation strategy.
3) Strengthening human resource capacity: The success of

innovation depends heavily on the readiness of principals, teachers, and education staff. Therefore, training and professional development are crucial components of innovation implementation.

4) Continuous evaluation and development: Every innovation needs to be evaluated to determine its effectiveness. Evaluation results serve as the basis for program improvements to ensure the innovation delivers optimal impact.

The implementation of innovation in school management is a strategic process that requires continuous planning, implementation, and evaluation. The success of innovation is determined not only by the presence of new ideas, but also by the school's ability to identify needs based on data, develop targeted programs, and ensure the readiness of the human resources involved. Principals, teachers, and education personnel play a crucial role as drivers of change through increased competency, collaboration, and an organizational learning culture. Furthermore, regular evaluation is necessary to measure the effectiveness of innovation and make improvements so that the developed program can have a real impact on improving the quality of learning and school quality. Therefore, needs-based school innovation, supported by adaptive leadership, and implemented through a continuous improvement cycle will be a crucial factor in realizing schools that are effective and responsive to changes in education.(Wibowo, 2024)

4.8.5 Challenges of Innovation Implementation in MBS

Although innovation provides many benefits, its implementation faces several challenges, including:

1) Resistance to change; Some school residents still feel comfortable with the old system, requiring an adaptation process.

2) Resource limitations; Limited budget, technological facilities, and digital competencies can hinder the implementation of innovation.
3) Lack of an innovative culture; Schools need an organizational culture that supports creativity, collaboration, and the courage to try new approaches.
4) The digital divide: The use of technology must consider equal access to avoid widening the gap between students and schools.

Implementing innovation in school management is a strategic step to improve the effectiveness of educational governance and address the demands of an increasingly dynamic educational environment. However, the success of innovation is determined not only by the availability of new technology or policies, but also by the readiness of human resources, organizational culture, and the school's ability to manage change. Various obstacles such as school community resistance, limited funding and infrastructure, a low culture of innovation, and the digital access gap need to be anticipated through systematic planning and a collaborative approach. Therefore, schools need to build adaptive leadership, improve digital literacy, strengthen the capacity of teachers and education personnel, and create an environment that encourages creativity and the courage to innovate. With these strategies, innovation can develop sustainably and contribute to improving the quality of educational services that are inclusive, effective, and aligned with the needs of the 21st century.(Schlegel, 2023)

4.9 Conclusion

School-Based Management (SBM) is an educational management approach that grants schools the authority and independence to optimize all available resources to improve the

quality of educational services. The implementation of SBM emphasizes not only administrative aspects but also encompasses systematic managerial processes through the management of various management functions, namely planning, organizing, movement (*actuating*), giving instructions (*directing*), coordination, control and innovation.

Planning in School-Based Management (SBM) serves as the primary foundation for determining the direction of school development through the development of programs based on the needs, data, and characteristics of the educational unit. Effective planning must be carried out in a participatory manner, involving all stakeholders to ensure the relevance and support of the designed program for implementation. Furthermore, organization plays a role in regulating the work structure, division of tasks, authority, and responsibilities of each school element, thus creating an effective, collaborative work system oriented toward achieving educational goals.

The functions of mobilization, direction, and coordination are crucial in ensuring the optimal implementation of all school programs. The success of these three functions is greatly influenced by the principal's leadership as a driver of change capable of fostering motivation, effective communication, a culture of collaboration, and the active involvement of all school members and the community. The principal serves not only as an administrator but also as a learning leader capable of empowering human resources to achieve sustainable improvements in educational quality.

Control in SBM serves as a quality assurance mechanism through monitoring, evaluation, reflection, and follow-up for improvement. Data-driven control implemented in a transparent and accountable manner enables schools to make informed decisions to

improve program effectiveness and the quality of educational services. Thus, control is not merely a supervisory activity, but part of a quality culture that encourages schools to continuously improve and innovate.

Furthermore, innovation is a crucial component in developing school-based management (SBM) to enable schools to adapt to the changes and challenges of 21st-century education. Innovation can be realized through digitalizing school management, developing creative learning, strengthening innovative leadership, and enhancing community partnerships. However, successful innovation requires human resource readiness, an organizational culture open to change, technological support, and adaptive leadership.

Thus, managing the components of School-Based Management (SBM) is an integrated and inseparable process. The success of SBM implementation depends heavily on the school's ability to manage all management functions effectively, participatively, transparently, and sustainably. Through the visionary leadership of the principal, the involvement of the entire school community, the use of data in decision-making, and the continuous development of innovation, SBM can be a strategic strategy in realizing schools that are independent, adaptive, accountable, and oriented towards improving the quality of education.

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Chapter 5
Management of School-Based Management Components

5.1 Introduction

School-Based Management (SBM) is an educational management paradigm that places schools at the center of decision-making by granting them greater autonomy in managing all educational resources in accordance with the characteristics, needs, and potential of the school environment. The implementation of SBM aims to improve educational quality by strengthening school independence, active participation of school members and the community, and transparency and accountability in every management process. With this authority, schools have the flexibility to design programs relevant to student needs without neglecting government-established policies and National Education Standards. Recent studies have shown that the implementation of SBM contributes to improving the quality of learning, the effectiveness of school management, and the achievement of sustainable educational quality.(Aah Khoriah, 2026) (Rizki Yatul Hanifa, 2024)

The successful implementation of School-Based Management (SBM) depends not only on the leadership of the principal, but also on the integrated management of all educational components. This management includes curriculum and learning, students, educators and education personnel, funding, facilities and infrastructure, school-community relations, and educational culture and environment. Each component has a complementary function in creating an effective, efficient, adaptive school management system oriented towards

improving the quality of educational services. Therefore, SBM is seen as a management system that emphasizes collaboration between stakeholders so that all school resources can be optimally utilized to achieve educational goals.(Putri, 2024)

In the current era of educational transformation and digitalization, the management of MBS components increasingly demands innovation, utilization of information technology, data-based decision making (*data-driven decision making*), and strengthening a culture of quality in schools. Schools are not only required to meet administrative standards but also to be able to build an innovative, inclusive, and student-centered learning ecosystem. Therefore, the management of each component of the School-Based Management System (SBM) must be carried out systematically through a continuous process of planning, implementation, monitoring, and evaluation so that schools can improve the quality of educational services while responding to the challenges of developments in science, technology, and societal needs in the 21st century.(Maulana, 2024)

School-Based Management (SBM) is an educational management approach that allows schools the freedom to optimize all resources according to their needs, characteristics, and potential, without neglecting national policies and National Education Standards. The implementation of SBM is not only oriented towards increasing school independence but also emphasizes the importance of stakeholder involvement, transparency in management, and accountability for every program implemented as an effort to continuously improve the quality of education.

The success of SBM implementation is greatly influenced by a school's ability to manage every component of education in an integrated manner, from curriculum and learning, student

management, educators and education personnel, financing, facilities and infrastructure, community relations, and strengthening the school's culture and environment. Integrated management of all these components will result in more effective, adaptive, and responsive school governance.

Amidst technological developments, digital transformation, and the demands of 21st-century competencies, the implementation of School-Based Management (SBM) needs to be supported by the use of information technology, data-driven decision-making, innovation in school management, and the consistent strengthening of a culture of quality through the planning, implementation, control, and evaluation cycles. Thus, SBM serves as a strategic foundation for schools to build a quality, competitive education system that is able to sustainably meet the needs of students and the expectations of society.

5.2 Curriculum and Learning Management

Curriculum and learning management are at the heart of SBM implementation because they directly relate to the process of achieving student competencies. Schools are empowered to develop operational curricula tailored to student characteristics, regional potential, community needs, and national policies. This management encompasses learning planning, developing teaching materials, selecting student-centered learning strategies, utilizing digital technology, conducting assessments, and continuously evaluating learning outcomes. The principal acts as an instructional leader, ensuring that the entire learning process meets quality standards and results in improved student learning outcomes.(Andrea Gideon, 2023)

The curriculum implementation in SBM also emphasizes flexibility, innovation, learning differentiation, and strengthening

student character. Teachers are encouraged to reflect on their learning through academic supervision, learning communities, and analysis of assessment results, ensuring continuous improvement based on data. This approach makes schools more responsive to developments in science, technology, and community needs.(Muhammad Aufa kumara Sucipta, 2024) (Fitriani, 2024)

Curriculum and learning management are the most strategic dimensions in the implementation of School-Based Management (SBM) because they directly determine the quality of the learning process and student learning outcomes. Within the SBM paradigm, the autonomy granted to schools extends beyond administrative freedom to professional responsibility for designing, developing, implementing, and evaluating curricula in accordance with student characteristics, local potential, community needs, and the direction of national education policy. This empowers schools to deliver learning that is more contextual, relevant, and adaptive to changes in the educational environment.(Eka Saputra, 2024) (Insani et al., 2026)

The success of curriculum management is greatly influenced by the quality of learning leadership (*instructional leadership*) the principal. The principal not only carries out administrative functions but also acts as an academic leader who directs learning planning, builds a culture of reflection, facilitates teacher professional development, and ensures that the entire learning process meets quality standards. Recent research shows that effective instructional leadership can improve the quality of curriculum implementation, strengthen a school's culture of quality, and encourage improved student learning outcomes through academic supervision and data-driven decision-making.(Muhamad Rifai, 2025) (Ralebese et al., 2025)

In addition to the principal's leadership, teacher professionalism is a determining factor in the success of curriculum implementation.

Teachers are required to be able to design student-centered learning (*student-centered learning*), implementing differentiated learning, meaningfully integrating digital technology, and implementing formative and summative assessments oriented towards improving the quality of learning. The use of assessment data to reflect on and improve learning shows that continuous improvement, which is one of the main principles of MBS. This approach enables teachers to provide learning services that are more tailored to the needs, abilities, and characteristics of each student.

Furthermore, curriculum management in the context of MBS is not only oriented towards achieving academic competencies, but also towards strengthening character, developing 21st-century skills, digital literacy, creativity, collaboration, communication, and critical thinking skills. Therefore, the curriculum needs to be designed flexibly to accommodate developments in science, technology, and ever-changing social dynamics. Implementing a curriculum that is responsive to local and global needs will increase the relevance of learning while strengthening graduates' competitiveness.(Hermina, 2025) (Wawan Setiawardani, 2025)

Based on this analysis, it is clear that the effectiveness of curriculum and learning management in SBM is determined by the synergy between school autonomy, the principal's instructional leadership, teacher professional competence, a culture of data-driven reflection, and the involvement of all school members in the continuous quality improvement process. With this synergy, schools are not only able to produce effective learning processes but also build an innovative, adaptive educational ecosystem oriented toward continuous quality improvement.

5.3 Student Management

Student management is the process of managing all student activities from admission to graduation. The goal is to optimize the overall academic development, character, talents, interests, and well-being of students. Management activities include new student admissions, data collection, guidance and counseling services, discipline development, student organization development, extracurricular activities, school health services, and monitoring learning progress.

From a SBM perspective, students are positioned as the center of the educational process. Therefore, schools need to provide inclusive, child-friendly, safe services that address individual student needs. Decisions regarding development programs are based on student development data, thereby sustainably improving academic and non-academic achievement.

Student management is a strategic component of School-Based Management (SBM) because it focuses on developing students' overall potential, including academic, character, social, emotional, and skills. This management focuses not only on student administration from admission to graduation but also includes planning, coaching, supervision, and evaluation of student development on an ongoing basis. Through systematic management, schools are able to create a learning environment that supports the effective and sustainable achievement of educational goals.

Within the SBM framework, students are positioned as the primary subjects of education (student-centered approach). Therefore, every school policy and program must be designed based on the needs, characteristics, and potential of students. The implementation of services such as transparent new student admissions, guidance and counseling services, educational discipline development, student

organization development, extracurricular activities, and school health services are integral to developing students with character, independence, and achievement. This approach aligns with the SBM principle, which emphasizes school autonomy in designing programs tailored to the needs of the school community and its surrounding environment.(Cindy & Aisyah, 2024)

Furthermore, managing students in the modern education era requires schools to implement the principles of inclusive and child-friendly education. Schools are not only obligated to provide access to education to all students without discrimination, but also to provide services that respect the diversity of abilities, social backgrounds, cultures, and special needs of students. Implementing inclusive education requires teacher preparedness, support from facilities and infrastructure, collaboration with parents, and partnerships with the community to ensure that every student has the opportunity to develop optimally.(Aryani et al., 2025) (Pamungkas et al., 2025)

Decision-making in student management also needs to be based on data (data-driven decision-making). Data on student attendance, academic achievement, character development, interests and talents, and social-emotional well-being form the basis for designing appropriate coaching and intervention programs. A data-driven approach enables schools to identify students in need of specialized support early, making services more effective and targeted. The use of information technology further strengthens the process of monitoring student development through school information systems and educational data analysis.(Zhang et al., 2024)

Thus, the success of student management in SBM is measured not only by high academic achievement, but also by the school's ability to create a safe, inclusive, and participatory learning environment that supports student character development and well-

being. Planned, data-driven management involving all stakeholders will improve the quality of educational services while supporting the creation of effective schools focused on continuously improving learning outcomes.

5.4 Management of Educators and Education Personnel

The management of educators and education personnel aims to ensure the availability of professional, competent human resources committed to improving school quality. Management includes analyzing teaching staff needs, assigning tasks, developing competencies, providing academic and managerial supervision, evaluating performance, providing rewards, and providing career development. Teachers serve not only as instructors but also as facilitators, motivators, mentors, and agents of change in the implementation of School-Based Management (SBM).(Sukardo Sitohang, 2025) (Gideon, 2023)

Schools need to build a culture of learning for teachers through training, professional learning communities, classroom action research, collaboration between educators, and the use of digital technology in teaching. Continuous professional development is a crucial strategy for improving the quality of educational services while strengthening school organizational capacity.(Muhammad Aufa kumara Sucipta, 2024)

The management of educators and education personnel is a key component of School-Based Management (SBM) because the quality of human resources is a determining factor in the success of education delivery. This management is not only oriented towards meeting the need for a sufficient number of educators, but also directed towards continuously improving the competence,

professionalism, performance, and welfare of education personnel. Therefore, schools need to implement a planned human resource management system, starting from needs analysis, recruitment, placement, task allocation, supervision, performance assessment, rewards, and career development in accordance with the school's vision, mission, and goals.

In the implementation of SBM, teachers have an increasingly complex role. Teachers are no longer viewed merely as transmitters of learning materials, but also as learning facilitators, mentors, motivators, innovators, and agents of change capable of fostering a culture of quality within the school environment. This paradigm shift requires teachers to possess pedagogical, professional, social, and personality competencies that continue to develop in line with the dynamics of the curriculum, the development of digital technology, and the needs of 21st-century learners. Thus, the effectiveness of teacher management is measured not only by administrative aspects, but also by the school's ability to create a work ecosystem that supports quality and innovative learning.(Graham, 2024)

Continuous professional development (CPD) is a crucial strategy for improving teacher competency. Ongoing training programs, professional learning communities, classroom action research, learning reflection activities, mentoring, coaching, and collaboration between teachers have been proven to improve the quality of teaching practices and strengthen the learning culture in schools. Effective professional development must be tailored to teachers' real needs, oriented toward solving learning problems, and supported by principal leadership capable of facilitating continuous professional learning.(He, 2024)

In the era of digital transformation, educator management also needs to integrate the use of technology as part of a competency-

building strategy. Digital learning platforms, online learning communities, technology-based training, and the use of artificial intelligence (AI) are beginning to become part of teacher professional development. This transformation allows teachers broader access to learning resources, best practices, and cross-school collaboration, enabling them to improve the quality of learning in a more adaptive, innovative, and sustainable manner.(Widiyan, 2024)

Furthermore, the success of teacher management is greatly influenced by the leadership of the principal. The principal acts as an instructional leader, capable of providing academic supervision, building a collaborative culture, providing professional development opportunities, and creating a work environment that supports innovation. Recent research shows that the principal's instructional leadership is positively related to increased teacher professionalism, learning effectiveness, and overall educational quality.(Fitriyana, 2025)

Based on this description, the management of educators and education personnel in School-Based Management should be viewed as a strategic investment in developing educational quality. Systematic, needs-based management, supported by strong school leadership, and accompanied by ongoing professional development will produce educators who are adaptive, innovative, and professional, capable of meeting the challenges of 21st-century education while continuously strengthening the school's culture of quality.

5.5 Financing Management

Financing is a strategic component in supporting the implementation of all school programs. In School-Based Management (SBM), financing management is carried out based on the principles of transparency, accountability, effectiveness, efficiency, and participation of all stakeholders. Management activities include budget

planning, program implementation, financial recording, reporting, monitoring, and evaluation of the use of school funds.(Fitriani, 2024) (Gloria E.V. Walewangko, 2023)

Good financial management enables schools to allocate resources appropriately according to priorities such as improving learning quality, developing teacher competencies, maintaining infrastructure, and providing services to students. Participation by school committees and the community is also crucial in building public trust in school financial governance.

Financing is a fundamental component in the provision of education because it determines the sustainability of all school programs, including those related to the learning process, human resource development, and the provision of facilities and infrastructure. From a national perspective, School-Based Management (SBM) Financial management is not only oriented towards administrative aspects, but also serves as a strategic instrument for realizing effective, transparent school governance that is oriented towards improving the quality of education. Therefore, every stage of school financial management must be implemented based on the principles of transparency, accountability, effectiveness, efficiency, fairness, and stakeholder participation, so that budget use can be accounted for to the public and the government (Fitriani, 2024; Gloria E. V. Walewangko, 2023). UNESCO and OECD findings also indicate that transparent and accountable financial governance is a crucial prerequisite for improving the quality of education services and equitable access to education.(UNESCO International Institute for Educational Planning (IIEP), 2024)

Operationally, school financing management includes the process budget planning, program implementation, financial administration, reporting, internal and external supervision, and

evaluation of fund use. The entire process needs to be systematically structured through needs-based planning (needs assessment) and school priorities so that every expenditure is directly linked to the achievement of educational goals. Good planning allows schools to allocate resources more proportionally to support improvements in the quality of learning, teacher competency development, maintenance of educational facilities, digital transformation of schools, and optimal service delivery to students. The OECD emphasizes that well-designed school funding policies will increase the efficiency of resource use while supporting equitable distribution of educational quality.(OECD, 2024)

Apart from the planning and implementation aspects, transparency and accountability is a key indicator of successful school funding management. Transparency is demonstrated through open information regarding revenue sources, budget utilization, and accountability reports that are easily accessible to school personnel and the community. Meanwhile, accountability requires that all fund use be based on applicable regulations, accompanied by complete administrative evidence, and subject to objective audit. Good financial governance practices will increase public trust in schools while minimizing the potential for irregularities in the management of education funds. UNESCO emphasizes that strengthening transparency and accountability is a crucial component of good governance to prevent corruption and ensure that education funding is utilized effectively to improve the quality of education services.

The success of financing management in MBS is also greatly influenced by active participation of various stakeholders, such as the principal, teachers, school committee, parents, community, and local government. The involvement of various parties in the preparation of budget plans, program implementation, and evaluation of fund use

will increase the sense of ownership to school programs while strengthening social oversight mechanisms. This participation encourages more democratic decision-making, aligned with the school's actual needs, so that each financing policy has stronger legitimacy and is oriented towards continuously improving the quality of education (Fitriani, 2024). The results of a recent literature review also indicate that the implementation of SBM in financing management contributes positively to the effectiveness of budget use, improving the quality of educational services, and strengthening a culture of accountability in schools.(Ella Febriyanti, 2026)

5.6 Management of Facilities and Infrastructure

Facilities and infrastructure are key factors in creating an effective learning process. Infrastructure management encompasses needs planning, procurement, inventory, utilization, maintenance, security, and disposal of school assets. Management is based on a needs analysis to ensure that all facilities truly support improvements in the quality of learning and educational services.(Fitriani, 2024)

In the digital era, infrastructure management also includes the provision of information technology devices, internet networks, digital learning media, and school information systems. Optimizing the use of these facilities will improve the effectiveness of learning, school administration, and communication with all stakeholders.

Facilities and infrastructure are strategic components in the implementation of education because they function as the main support for the creation of an effective, efficient learning process, and oriented towards achieving educational goals. Management of facilities and infrastructure is not only focused on the provision of physical facilities, but also encompasses a series of managerial processes including needs planning, procurement, inventory,

distribution, utilization, maintenance, security, evaluation, and systematic disposal of assets. All these stages must be implemented based on a needs analysis (needs assessment), priority scale, budget availability, and the principles of effectiveness, efficiency, transparency, and accountability to support the continuous improvement of the quality of educational services. Research shows that good management of educational facilities contributes to the creation of a conducive learning environment, increases student learning motivation, and supports improvements in the quality of the learning process.(Nelliraharti, 2025)

The development of digital technology has shifted the paradigm of school facility and infrastructure management from a conventional approach to technology-based management (digital asset management). Schools are no longer only required to provide classrooms, libraries, laboratories, and conventional learning equipment, but also must ensure the availability of digital infrastructure such as a stable internet network, computers or tablets, digital learning platforms, school management information systems, and artificial intelligence-based learning support devices. This transformation enables schools to optimize asset management more effectively through digital inventory systems, real-time facility condition monitoring, and data-driven decision-making.

Furthermore, various international studies confirm that the success of digital transformation in schools is determined not only by the availability of technology but also by the capacity of human resources to utilize it. Digital infrastructure will positively impact the quality of learning if supported by teacher digital competence, adaptive school policies, good governance, and the use of technology oriented to student needs. Therefore, investment in developing teacher competency and strengthening digital governance is an

integral part of managing modern educational facilities and infrastructure.

Thus, the management of facilities and infrastructure in the digital era must be viewed as a strategic investment in improving the quality of education. Planned, adaptive to technological developments, data-driven, and learning-oriented management will strengthen the effectiveness of the teaching and learning process, increase the efficiency of school administration, expand access to digital learning resources, and strengthen collaboration between schools, students, parents, and other stakeholders. This approach aligns with the direction of global education transformation, which places digitalization, quality governance, and innovation as the primary foundations for realizing inclusive, quality, and sustainable education.

5.7 Managing School and Community Relations

School-community relations are an effort to build mutually beneficial partnerships between schools and parents, school committees, businesses, industry, local governments, universities, and various community organizations. These partnerships aim to secure moral, material, and intellectual support for improving the quality of education.

Community relations management is carried out through open communication, reporting on school performance, involving parents in educational activities, collaborating on school programs, and empowering the community as a learning resource. High community participation will strengthen school accountability and foster a sense of ownership in the education process.

School-community relations are a strategic aspect of education management, fostering collaboration between schools and various

stakeholders, such as parents, school committees, businesses, industry, local governments, universities, and community organizations. These partnerships are not solely focused on providing financial or material support, but also encompass contributions in the form of ideas, expertise, networks, and active participation in the delivery of education. Through planned collaboration, schools gain a wider range of resources to improve the quality of educational services while strengthening the relevance of learning to the needs of the community and the workplace.

School-community relations management must be implemented based on the principles of transparency, accountability, participation, and two-way communication. Schools are required to openly communicate information about programs, achievements, and resource utilization to the community to foster public trust and ongoing support. Furthermore, the community must be given space to participate in decision-making, program evaluation, and school policy development through communication forums, school committees, and other partnership activities. The principal's leadership plays a crucial role in creating a collaborative culture that strengthens the relationship between the school, families, and the community.

Parental involvement in the educational process is also a significant factor in student learning success. Various studies have shown that intensive communication between teachers and parents, parental involvement in school activities, and support for home learning contribute to increased learning motivation, academic achievement, student well-being, and a positive school climate. Furthermore, the use of digital technologies, such as school information systems, learning apps, and online communication media, further strengthens the effectiveness of communication between

schools and families, enabling more flexible and sustainable community participation.

Thus, the relationship between schools and communities is no longer viewed as a supporting activity, but rather as an integral part of effective school governance. Sustainable partnerships can enhance public accountability, strengthen a culture of quality, expand learning resources, and foster a sense of school ownership. These conditions are crucial for realizing inclusive, adaptive education that is oriented toward continuous quality improvement in line with the demands of 21st-century educational development.

5.8 Management of Educational Culture and Environment

School culture is a system of values, norms, habits, and character that develops throughout school life. School culture management aims to create a safe, comfortable, inclusive, disciplined, religious, and democratic learning environment that is oriented toward developing student character. A positive culture will influence the behavior of all members of the school community, supporting improvements in the quality of learning and the school's organizational performance.

A conducive educational environment also encompasses cleanliness, safety, health, greenery, literacy, and the responsible use of technology. Schools that successfully develop a culture of quality will be committed to continuous improvement through evaluation, reflection, innovation, and collaboration among all members of the school community. Thus, school culture is a crucial foundation for the successful implementation of School-Based Management.

5.9 Conclusion

The management of School-Based Management (SBM) components is the main foundation in realizing effective, efficient, transparent, accountable education governance, and oriented towards continuous quality improvement. The implementation of SBM places schools as the center of decision-making through the granting of responsible autonomy, so that each educational component can be managed according to the characteristics, needs, and potential of the school, while still referring to national policies and National Education Standards. The success of SBM is not determined by one aspect alone, but by the synergy of all management components that support each other in achieving educational goals.

Curriculum and learning management are at the heart of MBS implementation because they are directly related to improving the quality of the teaching and learning process through instructional leadership, teacher professionalism, student-centered learning, and the use of technology and data in decision-making. Student management focuses on developing academic, character, social, and emotional potential through inclusive, child-friendly, and needs-based services. Meanwhile, the management of educators and education personnel focuses on strengthening professional competencies, developing sustainable careers, and establishing an organizational learning culture that adapts to developments in science and technology.

On the other hand, financial management that applies the principles of transparency, accountability, effectiveness, efficiency, and participation is a prerequisite for the sustainability of quality school programs. Planned management of facilities and infrastructure supported by digital transformation can create a conducive learning environment and support learning innovation. Furthermore, school-community relationships built through partnerships, open

communication, and the involvement of various stakeholders will strengthen support for education delivery and increase public trust in schools.

Furthermore, managing the educational culture and environment serves as a foundation for building character, discipline, collaboration, integrity, and a culture of quality that encourages continuous improvement. A positive school culture will create a safe, inclusive, and healthy learning environment, oriented toward developing students with character and prepared to face the challenges of the 21st century.

Thus, all components of School-Based Management (SBM) must be implemented in an integrated manner through continuous planning, implementation, control, evaluation, and follow-up. The integration of effective leadership, data-driven decision-making, the use of digital technology, the active participation of all stakeholders, and the strengthening of a culture of quality will make SBM a strategy capable of improving the quality of educational services, strengthening school competitiveness, and realizing quality, inclusive, adaptive, and sustainable education.

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Chapter 6
Technical Operational Management of School-Based Management

6.1 Introduction

Improving the quality of education depends not only on national policies but also on the ability of each educational unit to effectively manage the entire educational process. In this context, School-Based Management (SBM) is an approach that provides schools with the opportunity to optimize their authority in managing resources, designing work programs, and making decisions that align with student needs and the characteristics of the school environment. Through this approach, schools are encouraged to be more independent, innovative, transparent, and accountable in delivering quality educational services.(Sardawi, 2026)

One of the key aspects determining the success of SBM implementation is technical operational management. This aspect encompasses all activities directly related to the delivery of learning and educational services in schools, from developing human resource competencies and managing the learning process to establishing a school culture, to implementing evaluations as a basis for quality improvement. Systematic technical operational management enables schools to respond to the dynamics of scientific developments, technological advances, and changing student learning needs without compromising national education goals.(Hallinger, 2024)

The development of education in the digital era requires schools to focus not only on achieving learning outcomes but also on strengthening organizational capacity to adapt to change. Teachers are

required to develop active, innovative, communicative, educational, and enjoyable learning strategies so that students gain meaningful learning experiences. Meanwhile, the principal plays a strategic role in building instructional leadership, fostering a collaborative culture, encouraging innovation, and ensuring that every school program is implemented in accordance with the principles of continuous improvement. Synergy among all school members is crucial in creating a safe, inclusive learning environment that supports the optimal development of students' potential.(Fullan, 2024)

Technical operational management within MBS is also directed toward building a culture of quality that focuses not only on meeting educational standards but also on continuously improving service quality. This culture of quality is realized through data-driven planning, measurable program implementation, objective evaluation, and follow-up focused on improving the educational process. With this approach, schools have the ability to improve organizational performance, strengthen educator professionalism, enhance stakeholder satisfaction, and produce graduates with academic competencies, character, and skills relevant to the demands of the 21st century.(Schleicher, 2023)

Based on the description, the discussion regarding the technical operational management of School-Based Management is focused on four main aspects, namely: (a) increasing and developing the capacity of school resources, (b) implementing active, innovative, communicative, educational, and enjoyable learning strategies, (c) implementing a conducive educational culture and environment, and (d) achieving the goal of improving the quality of education in educational units. These four aspects are interrelated components and are the foundation for realizing schools that are adaptive, effective,

and oriented towards improving the quality of education in a sustainable manner.

6.2 Capacity Building and Development

Capacity building and development is a systematic process to enhance the competency of principals, teachers, education staff, students, and school committees so they can carry out their duties professionally. From a SBM perspective, capacity building is carried out continuously through training, mentoring, learning communities, workshops, academic supervision, coaching, mentoring, and the use of digital technology for professional development. This strategy aims to build a culture of lifelong learning so that all school members are able to adapt to policy changes, scientific developments, and the needs of 21st-century students.(Blessing, 2024)

Teacher capacity development is not only directed at improving pedagogical, professional, social, and personal competencies, but also the ability to integrate technology, implement authentic assessments, utilize learning outcome data for decision-making, and develop learning innovations. The principal acts as an instructional leader who fosters a culture of reflection, professional collaboration, and data-driven decision-making, thereby sustainably improving the quality of educational services.(Sita et al., 2024)

Capacity building strategies include:

1) Continuing Professional Development (CPD)
2) Professional Learning Community (PLC)
3) Coaching-based academic supervision
4) Digital literacy and artificial intelligence (AI) training in learning
5) Coaching and mentoring by the school principal
6) Benchmarking with schools that have good practices.

Capacity building and development is a key pillar in the implementation of School-Based Management (SBM) because it determines a school's ability to achieve continuous improvement in educational quality. This concept is not only interpreted as enhancing individual competency, but also as strengthening organizational capacity through the development of a learning culture, professional collaboration, and instructional leadership and data-driven decision-making systems. Thus, capacity development becomes a long-term investment that enables schools to adapt to changing education policies, technological developments, and the demands of 21st-century competencies.

From a SBM perspective, the success of capacity building is influenced by the synergy between the principal, teachers, education staff, students, and the community. The principal no longer functions solely as an administrator, but as a learning leader capable of creating a shared vision, developing a reflective culture, providing coaching academic supervision, and facilitating professional learning for teachers. Learning-oriented leadership has been shown to increase the effectiveness of school innovation implementation through the provision of resources, professional support, and the creation of a collaborative climate.(Yang et al., 2025) (Norman et al., 2025)

Teacher capacity development has also undergone a paradigm shift. Previously focused on improving pedagogical, professional, social, and personal competencies, teachers are now required to possess digital competencies, data literacy, the ability to utilize artificial intelligence (AI), and the ability to use assessment results as a basis for improving learning. This transformation is necessary because modern learning emphasizes personalized learning, data-driven formative assessment, and the use of technology to enhance the quality of students' learning experiences. Various systematic studies

have shown that the successful integration of AI in schools is highly dependent on the sustainability of teacher professional development programs and the leadership support of principals.(Tan et al., 2025) (Zeng et al., 2025)

In addition to strengthening individual competencies, capacity development in MBS needs to be supported by the formation of *Professional Learning Community* (PLC). Teacher learning communities enable the sharing of good practices (*best practices*), learning reflection, collaborative development of teaching materials, and collective problem-solving. Through PLCs, teacher learning becomes more sustainable than with incidental training. Recent research shows that the success of PLCs is heavily influenced by visionary school leadership, open communication, a culture of collaboration, and the active participation of the entire school community.(Siwy et al., 2024) (Salvador Magno Ximenes, 2026)

Capacity building strategies through Continuous Professional Development (PKB), coaching-based academic supervision, *coaching*, *mentoring*, digital literacy training, utilization of AI, and *benchmarking* with schools that have good practices is a complementary approach. PKB functions to systematically improve teacher professional competence, while *coaching* And *mentoring* strengthen reflective skills and solve learning problems contextually. On the other hand, *benchmarking* encourage schools to adopt innovations that have been proven effective so as to accelerate the improvement of school quality.

In the era of digital transformation, capacity development must also be directed at strengthening digital leadership (*digital leadership*Principals are required to develop a vision for digital transformation, provide adequate infrastructure, develop policies for the ethical use of AI, and create a learning environment that supports

technological innovation. Effective digital leadership has been shown to increase teacher confidence in integrating technology and AI into learning while strengthening a culture of innovation in schools.(Khalid Arar; Ahmed Tlili; Lori Schunka; Soheil Salha; Anna Saiti, 2025)

Thus, capacity building and development within SBM cannot be viewed as mere training activities, but rather as a continuous process of organizational transformation. Its successful implementation is determined by strong instructional leadership, a collaborative culture, ongoing professional development, the responsible use of digital technology and AI, and a data-driven evaluation system. When all these components are implemented in an integrated manner, schools will have adaptive and innovative organizational capacity capable of continuously improving the quality of learning in line with the demands of 21st-century education.(Anand et al., 2023)

6.3 Active, Innovative, Communicative, Educational, and Enjoyable Learning Strategies

The implementation of SBM places the learning process at the heart of improving school quality. Therefore, learning strategies must be designed to enable students to actively construct knowledge through meaningful learning experiences. Active learning encourages students to think critically, creatively, collaborate, and solve real-world problems. Teachers act as facilitators, creating a participatory learning environment by utilizing various methods and media tailored to student characteristics.(Rizki Yatul Hanifa, 2024) (Anggraini et al., 2024)

Innovative learning requires teachers to develop adaptive approaches to technological developments and student needs, for

example through Project-Based Learning (PjBL), Problem-Based Learning (PBL), Inquiry Learning, Discovery Learning, differentiated learning, gamification, blended learning, and the use of a Learning Management System (LMS). These strategies increase student engagement while strengthening 21st-century competencies, including critical thinking, creativity, communication, and collaboration.(Sardawi, 2026)

Communicative and educational learning is built through two-way interactions between teachers and students that respect diversity, provide constructive feedback, and create a psychologically safe learning environment. Meanwhile, enjoyable learning is realized through contextual activities, educational games, the use of interactive digital media, project-based learning, and collaborative activities that enhance students' intrinsic motivation. Thus, learning is oriented not only toward academic achievement but also toward character development and social-emotional competencies.(Puja, 2024)

Characteristics of learning in MBS include:

1) Student-centered
2) Based on real experience
3) Developing HOTS
4) Leveraging digital technology
5) Integrating character building
6) Using formative assessment on an ongoing basis.

Implementation School-Based Management (SBM) places the learning process as a key component in improving the quality of education. The success of SBM is measured not only by the aspect of school governance, but also by the quality of the learning process that takes place in the classroom. Therefore, learning must be designed with a student-centered approach (*student-centered learning*), so that students have the opportunity to build knowledge through authentic,

collaborative, and reflective learning experiences. This approach can increase student engagement in the learning process, developing critical thinking, creativity, communication, and collaboration skills as key competencies of the 21st century. Teachers in the context of SBM no longer act as the sole source of information, but as facilitators, motivators, and guides who create an inclusive and conducive learning environment for the development of student potential. Recent research findings also show that student-centered learning contributes to improving the quality of education through active student involvement and more authentic assessment.(Riyanto & Menang, 2024) (Nurhasanah et al., 2026)

In line with the implementation of MBS, innovative learning is a crucial strategy in addressing the challenges of educational transformation in the digital age. Teachers are required to be able to integrate various learning models, such as Project-Based Learning (PjBL), Problem-Based Learning (PBL), Inquiry Learning, Discovery Learning, differentiated learning, blended learning, gamification, and utilization Learning Management System (LMS). These various approaches have been proven to increase learning motivation, strengthen higher-order thinking skills (*Higher Order Thinking Skills/HOTS*), and prepare students to face real-world problems creatively and adaptively. Furthermore, the use of digital technology allows for more flexible, personalized learning, and is oriented towards each student's individual learning needs.(Mohamad Azhar Annawa UBM, 2025) (Ragab et al., 2024)

Effective learning in MBS must also be built through educational communication that positions teachers and students as learning partners. Open interaction, constructive feedback, respect for the diversity of student abilities, and the creation of psychological safety is a crucial factor in improving the quality of learning.

Furthermore, a fun learning environment can be created through contextual activities, educational games, collaborative projects, interactive digital media, and learning experiences relevant to everyday life. These conditions not only improve academic learning outcomes but also support the development of character, social-emotional skills, adaptability, and intrinsic motivation in students. (Puja, 2024). Findings from various systematic studies indicate that an active and collaborative learning environment significantly increases student engagement and competence.(Ramdhani et al., 2024)

The learning characteristics in the implementation of MBS reflect the modern educational paradigm that is oriented towards sustainable quality. These characteristics include: (1) student-centered learning; (2) learning based on real experiences (*experiential learning*); (3) development of high-level thinking skills (*Higher Order Thinking Skills/HOTS*); (4) utilization of digital technology as a medium and learning resource; (5) integration of character education in every learning process; and (6) implementation of continuous formative assessment as a basis for providing feedback to improve the learning process and outcomes. Formative assessment not only functions to measure learning achievements, but also becomes a reflection instrument for teachers and students in continuously improving learning strategies.(Faulina & Jamil, 2026)

6.4 Implementation of a Conducive Educational Culture and Environment

School culture is a collection of values, norms, customs, traditions, and beliefs that guide the behavior of all members of the school community. In School-Based Schooling (SBM), school culture is built through a participatory approach to create a safe, inclusive, disciplined, religious, child-friendly, healthy, and quality-oriented

environment. A conducive educational environment provides a sense of physical and psychological safety, enabling students to learn optimally.(Asyibli et al., 2025) (Rizky Barokah et al., 2024)

Implementation of school culture is carried out through the instilling of values of integrity, responsibility, mutual cooperation, discipline, caring, literacy, numeracy, and a culture of continuous reflection and evaluation. The principal serves as the primary role model in building organizational culture, while teachers act as agents of change, internalizing positive values through the learning process and extracurricular activities. Support from parents, the school committee, and the community strengthens the success of establishing a positive school culture.(Widya Dwi Anggraini, 2024)

In addition to organizational culture, the physical environment of the school is also a focus in the technical operational management of MBS. Good management of facilities and infrastructure includes the provision of comfortable classrooms, adequate libraries, laboratories, proper sanitation, green open spaces, sports facilities, and the use of information technology as part of a modern learning environment. A well-organized physical environment supports comfortable learning and increases student motivation.(Sita et al., 2024) (Salsabilla et al., 2023)

School culture that needs to be developed includes:

1) Quality culture
2) Literacy and numeracy culture
3) Culture of discipline
4) Collaborative culture
5) Digital culture
6) Child-friendly culture
7) Culture of reflection and innovation.

School culture is the primary foundation for implementing School-Based Management (SBM) because it serves as a value system that shapes the behavior, interaction patterns, and character of all members of the school community. This culture is reflected not only through formal rules but also through daily habits that develop consistently and become the school's identity. In the context of SBM, the formation of school culture is carried out in a participatory manner, involving the principal, teachers, education staff, students, parents, the school committee, and the community. This participatory approach strengthens a sense of ownership so that all stakeholders share a shared responsibility in creating safe, inclusive, democratic schools that are oriented toward improving the quality of education. Various studies have shown that a positive school culture contributes to increased learning motivation, discipline, student character, and the effectiveness of school organizations.(Nathania & Putri, 2025) (Fitriana Siregar & Zulfikar Siregar, 2024)

Implementation of school culture requires the leadership of a principal who is able to be a role model and also a driver of organizational cultural change. The principal plays a role in building a shared vision, fostering open communication, and creating a collaborative work climate. Meanwhile, teachers function as agents of change through the implementation of student-centered learning, the instilling of character values, providing positive reinforcement, and implementing ongoing learning reflection. Collaboration between schools, families, and the community is also crucial because character education does not only take place in schools but requires continuity within the family and social environment. Thus, the school culture develops into an educational ecosystem that supports the balanced development of both academic competence and student character.(Azani & Andini, 2025)

In addition to strengthening organizational culture, a conducive educational environment is a strategic factor in increasing the effectiveness of the learning process. A conducive environment encompasses not only physical aspects, such as comfortable classrooms, libraries, laboratories, sanitation, green open spaces, sports facilities, and access to information technology, but also psychological aspects such as harmonious interpersonal relationships, a sense of security, respect for diversity, and open communication between teachers and students. Recent research shows that a safe and comfortable learning environment can increase student engagement , intrinsic motivation, learning concentration, and student psychological well-being. Conversely, a less conducive school environment has the potential to reduce the quality of learning and hinder students' social-emotional development.(Mayzy Az-Zahra Putri et al., 2025)

The development of 21st-century education also demands a school culture that adapts to digital transformation. Therefore, implementing a digital culture is an integral part of school-based management. Digital culture is not only related to the use of technological devices, but also encompasses digital literacy, media ethics, data security, technology-based collaboration, and the use of digital platforms to support learning, school administration, and data-driven decision-making. Integrating technology into school culture will improve the efficiency of school management while preparing students with competencies relevant to the demands of the digital era and a knowledge-based society.

Based on the MBS perspective, school cultures that need to be developed sustainably include a culture of quality, a culture of literacy and numeracy, a culture of discipline, a culture of collaboration, a digital culture, a child-friendly culture, and a culture of reflection and innovation. These seven cultures complement each other in building a

learning organization which is able to make continuous improvements. Schools that successfully integrate these cultures will be more adaptive to change, have accountable governance, increase the satisfaction of all stakeholders, and produce graduates with character, competence, and readiness to face global challenges. Thus, the success of SBM implementation is determined not only by administrative aspects, but also by the strength of the organizational culture and the quality of the learning environment, which is managed systematically, participatory, and sustainably.

6.5 Achievement of the Goal of Improving the Quality of Education in Educational Units

The primary objective of MBS's technical operational management is to improve the overall quality of education through effective, efficient, transparent, and accountable school management. Quality improvement is measured not only by student academic performance but also by the quality of educational services, teacher competence, school leadership effectiveness, community satisfaction, strengthening student character, and the school's success in building an organizational culture that is adaptive to change.

Quality achievement is achieved through a continuous improvement cycle that encompasses planning, program implementation, monitoring, evaluation, reflection, and data-driven follow-up. Schools utilize the results of assessments, academic supervision, school self-evaluations, internal quality audits, and input from various stakeholders as the basis for developing subsequent quality improvement programs. A data-driven approach enables each school decision to be more objective, targeted, and oriented toward continuously improving the quality of educational services.

Indicators of successful quality improvement in MBS include increased graduate competency, learning process quality, teacher professionalism, parent and community satisfaction, effective resource management, a school culture of quality, and the creation of a safe, inclusive learning environment that supports the development of all students' potential. Thus, MBS operational technical management is a strategic instrument in realizing superior, adaptive, innovative, and competitive schools.

Technical operational management in School-Based Management (SBM) is oriented towards improving the quality of education through the systematic, participatory, and sustainable optimization of all school components. Educational quality in the context of SBM is no longer understood solely as improving student academic achievement, but also encompasses the quality of the learning process, the effectiveness of school leadership, the professionalism of educators, the quality of administrative services, character building, student welfare, and the level of public trust in the implementation of education. Thus, school quality is the result of the integration of organizational governance, learning quality, and the involvement of all stakeholders in achieving educational goals.

In its implementation, improving quality requires a management system that applies the principles *continuous improvemen*. The cycle begins with identifying needs through data analysis, developing programs based on priorities, implementing programs, monitoring, evaluating, reflecting, and following up as a basis for further policy refinement. This approach aligns with the concept of modern quality management, which positions evaluation as an organizational learning process (*organizational learning*), not just an administrative activity. Therefore, each evaluation result becomes a strategic source of

information for improving the effectiveness of school management and the quality of educational services.

Developments in global education policy also show that improving school quality increasingly relies on evidence-based decision-making. Schools need to utilize various data sources, such as national assessment results, school self-evaluations, academic supervision, internal quality audits, school community satisfaction surveys, and student development data as a basis for designing quality improvement programs. Data-driven management enables schools to set priorities objectively, allocate resources more efficiently, and continuously measure the effectiveness of each program. UNESCO emphasizes that educational management information systems (*Education Management Information System/EMIS*) is an important foundation in supporting transparent, accountable, and adaptive educational governance to change.

In addition to governance aspects, the principal's leadership plays a significant role in the successful implementation of MBS. The principal functions not only as an administrator but also as a learning leader (*instructional leader*) capable of building a collaborative culture, encouraging learning innovation, developing teacher capacity, and creating a conducive school climate. The UNESCO Global Education Monitoring (GEM) 2024/2025 report shows that effective school leadership is a key factor in improving the quality of learning, strengthening a culture of quality, and improving student learning outcomes. Similarly, the OECD emphasizes that schools that successfully maintain high quality are those that foster collaborative leadership, professional reflection, and the use of scientific evidence in decision-making.

Indicators of successful quality improvement in SBM also need to be viewed comprehensively. Success is measured not only by

academic scores or graduation rates, but also by improvements in students' 21st-century competencies, the effectiveness of the learning process, teacher professionalism, efficient resource management, organizational quality culture, parental satisfaction, and the creation of a safe, inclusive, healthy learning environment that is oriented toward student well-being. This perspective demonstrates that educational quality is the result of a synergy between learning quality, school leadership, organizational governance, and community participation.

Thus, the technical operational management of SBM is a strategic instrument in building schools that are adaptive to change, responsive to student needs, and capable of creating sustainable innovation. SBM implementation supported by visionary leadership, a collaborative culture, strong data literacy, and ongoing evaluation mechanisms will strengthen school competitiveness while supporting the achievement of quality, inclusive, and sustainable education development goals in line with the direction of national education transformation and the Sustainable Development Goal (SDG) 4 agenda.

6.6 Conclusion

Technical operational management in School-Based Management (SBM) is a strategic component that determines the effectiveness of education delivery and the success of continuous school quality improvement. The implementation of SBM not only emphasizes administrative aspects, but also on strengthening organizational capacity through competency development of principals, teachers, education personnel, and all school members so they are able to respond to the dynamics of developments in science, technology, and the needs of 21st-century students. Systematic capacity development carried out through Continuous Professional

Development (PKB), professional learning communities, academic supervision, coaching, mentoring, and the use of digital technology is the foundation for building schools that are adaptive, innovative, and oriented towards lifelong learning.

The success of SBM is also determined by the implementation of active, innovative, communicative, educational, and enjoyable learning strategies. Student-centered learning, supported by the use of digital technology, a project-based approach, formative assessment, and the development of higher-order thinking skills (HOTS), can create meaningful learning experiences while developing academic competencies, character, and 21st-century skills. In this context, teachers act as learning facilitators, while the principal functions as an instructional leader who encourages a culture of collaboration, innovation, and continuous improvement.

Furthermore, implementing a conducive school culture and educational environment is a crucial prerequisite for building a safe, inclusive, healthy, and quality-oriented learning ecosystem. Strengthening a culture of quality, literacy, numeracy, discipline, collaboration, digital literacy, child-friendly learning, and a culture of reflection and innovation will strengthen the school's organizational character while increasing the involvement of all stakeholders in supporting education delivery. A well-managed physical and psychological environment also contributes to increased learning motivation, student well-being, and the effectiveness of the learning process.

Ultimately, the goal of improving educational quality within the School-Based Management (SBM) is achieved through the implementation of effective, efficient, transparent, accountable, and data-driven school governance. Decision-making based on the results of evaluations, assessments, supervision, and ongoing reflection

enables schools to systematically improve according to the needs and challenges they face. Thus, the technical operational management of SBM is a crucial instrument in building superior, adaptive, innovative, and competitive schools, while also supporting the realization of quality, inclusive, and sustainable education in accordance with national education development goals and the Sustainable Development Goals (SDG) 4 agenda.

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Chapter 7
Instructional Leadership and Educational Supervision Implemented in Educational Units

7.1 Introduction

Instructional leadership and educational supervision are two inseparable components in efforts to improve the quality of education in educational units. The changing educational paradigm in the 21st century, the implementation of the Independent Curriculum, and the demands for improved learning quality have positioned school principals not merely as administrators but also as leaders. Instructional leader whose role is to direct, foster, and develop effective learning practices. From this perspective, school success is measured not only by the fulfillment of administrative aspects, but also by the principal's ability to build a learning culture, improve teacher competency, and create a student-centered learning environment. Several recent studies have shown that instructional leadership has a strong relationship with improving the quality of learning, teacher professionalism, and student learning outcomes.

At the educational unit level, instructional leadership is realized through various strategic activities, such as developing a learning vision, managing the curriculum, utilizing learning outcome data, developing teacher professionalism, and monitoring and evaluating the learning process. The principal acts as a learning leader (*learning leader*) that ensures all school resources are optimally utilized to achieve educational goals. This approach emphasizes that improving school quality must begin with improving the quality of classroom learning processes through collaboration between principals, teachers,

education staff, and all stakeholders. The development of the instructional leadership concept also demonstrates the integration of digital technology, collaborative culture, and data-driven decision-making as a response to the challenges of modern education.(Prasetyaningtyas & Sofwan, 2026)

In line with instructional leadership, educational supervision is a professional development mechanism aimed at helping teachers improve their pedagogical, professional, social, and personal competencies through a systematic, ongoing, and collaborative process. Educational supervision is no longer viewed as a purely assessment-oriented inspection activity, but rather as a mentoring process that emphasizes reflection, constructive feedback, and*coaching*, and teacher professional development. Effective academic supervision provides teachers with the opportunity to evaluate teaching practices, improve teaching strategies, and develop learning innovations tailored to student needs.(Kusumadipraja et al., 2025) (Siti Lara et al., 2025)

The relationship between instructional leadership and educational supervision is very close because academic supervision is one of the main instruments in implementing instructional leadership. Principals, as learning leaders, utilize supervision to identify teacher development needs, provide professional mentoring, and ensure the learning process takes place in accordance with educational quality standards. Various research results show that the integration of instructional leadership and academic supervision contributes significantly to improving teacher competence, school organizational effectiveness, quality culture, and student achievement. Therefore, the integrated implementation of instructional leadership and educational supervision is a crucial strategy in realizing schools that are adaptive, innovative, and oriented towards continuously improving the quality of learning.(Maryati et al., 2025) (Lubis et al., 2026)

7.2 Concept of Instructional Leadership

Instructional leadership is leadership oriented toward improving the quality of the teaching and learning process through teacher capacity development, curriculum management, the use of learning data, and the creation of a conducive academic culture. The principal is responsible for ensuring that all school resources are directed toward supporting successful learning and student development. Unlike administrative leadership, which emphasizes organizational management, instructional leadership places the learning process at the core of all school policies. Recent research shows that this leadership model is the most consistent approach related to improved student learning outcomes compared to other school leadership models. The main dimensions of instructional leadership include:

1) Establishing learning vision and goals
2) Managing learning programs
3) Developing a conducive school climate
4) Promote teacher professional development
5) Using learning data as a basis for decision-making.

Instructional leadership is a school leadership paradigm that prioritizes the learning process in all educational management activities. The primary focus of this leadership model is not only ensuring effective school administration but also ensuring that all school policies, resources, and programs contribute directly to improving the quality of learning and student learning outcomes. Therefore, the principal plays a key role. Instructional leader who actively guide teachers, monitor curriculum implementation, evaluate the learning process, and build a sustainable learning culture.

Conceptually, instructional leadership differs from administrative leadership. Administrative leadership focuses more on organizational management, resource control, and bureaucratic

compliance, while instructional leadership focuses on improving the quality of learning by strengthening teacher capacity and optimizing student learning experiences. Recent research indicates that the effectiveness of principal leadership in improving student achievement is more influenced by the principal's direct involvement in learning than simply their ability to manage school administration.

Based on the framework Principal Instructional Management Rating Scale (PIMRS), instructional leadership is built on three main dimensions: establishing the school's mission, managing learning programs, and creating a positive learning climate. These three dimensions are then translated into various interrelated operational functions that contribute to improving the quality of education.

In its implementation in educational units, the first dimension is setting learning vision and goals The principal must be able to formulate an academic vision that is clear, measurable, and understood by all members of the school community. This vision serves as a guideline for developing school programs, curriculum development, and learning evaluation, ensuring that all educational activities are aligned toward improving the quality of learning.

The second dimension is managing learning programs In this aspect, the principal conducts academic supervision, ensures curriculum implementation meets standards, monitors the quality of classroom learning, and provides ongoing feedback to teachers. Supervision is no longer viewed solely as an oversight activity, but as a professional development process aimed at improving teacher competency in designing, implementing, and evaluating learning.

The third dimension is developing a conducive school climate A safe, inclusive, collaborative, and learning-oriented school environment will increase the motivation of both teachers and students. Principals need to foster a culture of reflection, open

communication, professional collaboration, and appreciation for learning innovation to create a thriving learning community.

The fourth dimension is promote teacher professional development. Teacher competency development is carried out through training, coaching, mentoring, teacher learning communities, classroom action research, and learning reflection activities. Various studies have shown that improving teacher quality is one of the main mechanisms linking instructional leadership to improved student learning outcomes.

The fifth dimension is using learning data as a basis for decision-making. The principal utilizes various data, such as assessment results, student competency achievements, learning observations, student attendance, and school program evaluations to formulate evidence-based policies (*evidence-based decision making*). This approach allows every decision taken to be more objective, measurable, and on target in supporting improvements in the quality of education.

Overall, international research indicates that instructional leadership remains the school leadership model that most consistently positively impacts learning quality, teacher professional development, school climate, and student achievement. The current challenge in implementation is no longer conceptual understanding, but rather the principal's ability to balance administrative demands with their strategic role as a learning leader capable of fostering innovation, collaboration, and a culture of continuous improvement in schools.

7.3 The Nature of Educational Supervision

Educational supervision is a professional development process aimed at helping teachers systematically improve the quality of learning. Modern supervision is no longer understood as an

inspection activity to find teacher errors, but rather as a collaborative process that emphasizes mentoring, reflection, feedback, and continuous improvement.

In its implementation in educational institutions, educational supervision encompasses both academic and managerial supervision. Academic supervision focuses on improving the quality of classroom learning, while managerial supervision relates to the effectiveness of school management, educational administration, and institutional governance. These two forms of supervision complement each other in supporting improvements in educational quality.(Kusumadipraja et al., 2025)

Educational supervision is a strategic function in educational management that aims to improve the professionalism of educators and ensure the achievement of quality learning processes and outcomes. The supervision paradigm has undergone a shift from an inspection and oversight approach to a more humanistic, participatory, and collaborative approach. In the modern paradigm, supervision is understood as a professional development process that positions teachers as partners in reflection, problem-solving, competency development, and continuous improvement of learning practices. This approach is believed to be able to create an organizational learning culture (*learning organization*) which encourages learning innovation and improves the quality of education.(Glickman, 2018) (P. Hallinger, 2020)

In its implementation in educational units, educational supervision consists of two main dimensions: academic supervision and managerial supervision. Academic supervision is oriented towards improving the quality of the learning process through planning activities, observing learning, providing constructive feedback, joint reflection, and follow-up that supports the development of teachers'

pedagogical and professional competencies. Meanwhile, managerial supervision focuses on the effectiveness of school governance, including program planning, human resource management, educational administration, management of facilities and infrastructure, and strengthening the internal quality assurance system. These two forms of supervision complement each other because learning success is not only determined by teacher competence but also influenced by the quality of school management that supports the creation of an effective learning environment.(Sergiovanni, 2018)

Furthermore, the success of supervision implementation is greatly influenced by the principal's leadership competency as the learning supervisor. Principals are required to build effective communication, provide professional guidance, utilize supervision data as a basis for decision-making, and develop a culture of reflection and continuous improvement. In the context of implementing the Independent Curriculum and the education quality assurance system, supervision based on professional development is a crucial instrument for improving the quality of learning, strengthening teacher competency, and encouraging sustainable improvements in student learning outcomes.(UNESCO, 2024)

Based on this description, it is clear that educational supervision is no longer positioned as an administrative oversight mechanism, but rather as a strategy for developing teacher capacity and improving school quality as a whole. The synergy between academic and managerial supervision enables educational units to build effective learning systems, accountable governance, and a culture of quality oriented toward continuous improvement. Therefore, systematic, collaborative, and data-driven supervision is a key factor in creating adaptive, professional schools capable of meeting the challenges of 21st-century education.

7.4 The Relationship between Instructional Leadership and Educational Supervision

Instructional leadership and educational supervision are closely related because both are oriented toward improving the quality of learning. Principals who implement instructional leadership utilize supervision as a primary strategy for developing teacher competency. Through reflective supervision, teachers have the opportunity to evaluate their teaching practices, receive constructive feedback, and plan follow-up professional development programs.

Recent research shows that integrating instructional leadership with academic supervision has a positive impact on improving teacher pedagogical competence, learning innovation, collaborative culture, and overall school quality. Continuous supervision also strengthens an organization's learning culture (*learning organization*) so that schools are able to adapt to changes in the curriculum and developments in educational technology.(L. Irianti et al., 2026) (C. Sutarsih et al., 2025)

Instructional leadership and educational supervision are two strategic, integrated aspects that enhance the quality of learning and educational units. Instructional leadership positions the principal as an instructional leader, focused on improving the teaching and learning process, teacher professional development, and student learning outcomes. In practice, academic supervision serves as the primary instrument for realizing this leadership function through coaching, mentoring, classroom observation, learning reflection, and feedback aimed at continuous improvement.

Collaborative and ongoing educational supervision is no longer viewed as a mere assessment of teacher performance, but rather as a professional empowerment process that encourages teachers to critically reflect on their learning practices. Through coaching and mentoring-based supervision, teachers are given the opportunity to

identify strengths, analyze learning constraints, and develop innovative strategies tailored to student needs. This approach has been proven to comprehensively enhance teachers' pedagogical, professional, social, and personal competencies, thus directly impacting the quality of learning.(OECD, 2023) (Darling-Hammond, 2024)

In the context of implementing the Independent Curriculum and digital education transformation, school principals are required to have the capacity to lead change and build a professional learning community. Effective instructional leadership encourages collaboration among teachers through reflective discussions, sharing of best practices, lesson study, and the use of assessment data as a basis for learning decisions. These conditions support the formation of learning organizations (LBOs). Learning organization which is adaptive to changes in education policy, technological developments, and the needs of 21st century competencies.(Fullan, 2024)

Various studies have shown that integrating instructional leadership with academic supervision significantly improves school effectiveness. Schools that implement systematic, development-oriented supervision have higher levels of learning innovation, a stronger collaborative culture, and improved student learning outcomes. Furthermore, ongoing supervision also increases teacher motivation, strengthens organizational commitment, and fosters a culture of quality, the primary foundation of an educational quality assurance system.(D., et al. Irianti, 2026) (S., et al. Sutarsih, 2025) (P., & W. W. C. Hallinger, 2023)

Thus, instructional leadership and educational supervision are inseparable in school management focused on quality improvement. A principal's success is determined not only by administrative skills but also by their capacity to mentor teachers through reflective,

collaborative, data-driven, and ongoing supervision. The synergy of these two aspects will result in improved teacher competency, learning innovation, an adaptive organizational culture, and graduate quality that better meets the demands of educational development in the global era.

7.5 Implementation of Instructional Leadership in Educational Units

The implementation of instructional leadership in schools is realized through various strategic activities, including:

1) Developing a Learning Vision: The principal formulates a learning vision that focuses on improving quality, developing character, mastering 21st-century competencies, and achieving the Pancasila Student Profile. This vision serves as a guideline for all school members in developing academic programs.
2) Curriculum Development: The principal ensures that the curriculum is implemented according to national standards by providing support for the development of teaching materials, learning modules, assessments, and learning differentiation according to student needs.
3) Teacher Professional Development; Professional development is carried out through: academic supervision, coaching, mentoring, lesson study, teacher learning communities, needs-based training, and learning reflection. These activities encourage teachers to become lifelong learners.
4) Learning Monitoring: Monitoring is conducted through classroom observations, analysis of learning tools, student interviews, and evaluation of learning outcomes to obtain a clear picture of the quality of the learning process.
5) Data-Driven Decision Making: Utilizing assessment results,

educational reports, learning evaluations, and supervision data enables principals to develop more targeted quality improvement programs.

The implementation of instructional leadership is at the heart of the principal's role as a leader of learning. This leadership focuses not only on administrative aspects, but also on systematic efforts to improve the quality of the learning process, teacher competency, and student learning outcomes. Recent research shows that instructional leadership has a significant impact on improving teacher performance, school effectiveness, and student academic achievement.(P. Hallinger et al., 2025)

Developing a learning vision is the first step in determining the direction of school development. A vision oriented toward quality improvement, character development, mastery of 21st-century competencies, and the achievement of the Pancasila Student Profile serves as the basis for developing academic policies and a school learning culture. The principal's role is to ensure that this vision is understood, internalized, and realized through work programs and daily learning practices. Thus, the vision becomes not merely a formal document but an operational guideline that directs the entire school community toward the same educational goals.(Bahtiar & Qasabandiyah, 2025)

Curriculum development is a key indicator of effective instructional leadership. Principals are responsible for ensuring curriculum implementation aligns with National Education Standards and is responsive to evolving student needs. Support for the development of teaching modules, learning tools, diagnostic assessments, formative assessments, and the implementation of differentiated learning demonstrates the principal's commitment to creating adaptive, inclusive, and student-centered learning. This

approach also strengthens the implementation of the Independent Curriculum, which emphasizes flexible learning tailored to student characteristics.

Teacher professional development is the most dominant dimension of instructional leadership. Principals not only conduct academic supervision as an assessment activity, but also develop a culture of professional learning through coaching, mentoring, lesson study, teacher learning communities (PLCs), needs-based training, and learning reflection. This approach can continuously improve teachers' pedagogical, professional, social, and personal competencies, enabling them to develop as lifelong learners. Various systematic studies show that consistent professional support from the principal contributes to improving the quality of learning and teacher performance.(Agusli et al., 2024) (Salsabila Putri et al., 2025)

Learning monitoring is a continuous academic quality control mechanism. Through classroom observations, analysis of teaching materials, interviews with students, and evaluation of learning outcomes, principals obtain factual information regarding the effectiveness of learning. This information is used as the basis for providing constructive feedback to teachers to improve learning strategies. Monitoring conducted collaboratively and reflectively has proven more effective than approaches solely focused on administrative assessments because it fosters a culture of continuous improvement.

Modern instructional leadership demands that principals make decisions based on evidence (*evidence-based decision making)*. Utilizing assessment results, education reports, academic supervision data, learning evaluations, and various school quality indicators allows for the development of more accurate, effective, and targeted quality improvement programs. This approach is in line with developments

in learning analytics And educational data mining which places data as the basis for designing learning interventions, evaluating school policies, and improving student outcomes sustainably.

These five components demonstrate that instructional leadership is an integrated process involving planning, implementation, coaching, evaluation, and data-driven decision-making. The effectiveness of a principal's leadership is determined not only by their ability to manage school administration, but also by their capacity to build a culture of learning, empower teachers, optimize curriculum implementation, and utilize data as a basis for improving educational quality. Therefore, instructional leadership is a key factor in creating schools that are adaptive, innovative, and oriented toward continuously improving student learning outcomes.

7.6 Implementation of Educational Supervision in Educational Units

The implementation of educational supervision generally follows the following stages:

1) Planning; At this stage, the principal prepares an annual supervision program that includes objectives, schedules, observation instruments, assessment indicators, and follow-up mechanisms.
2) Implementation of Supervision; Implementation of supervision includes: observation of classroom learning, review of learning administration, teacher interviews, analysis of student learning outcomes, documentation of learning practices. The supervisory approach used should be humanistic, collaborative, and based on teacher needs.
3) Feedback (*Feedback*); After the observation, a reflective discussion was held between the principal and teachers regarding strengths,

challenges, and strategies for improving the quality of learning.

4) Follow-up; Follow-up can be in the form of: training, individual mentoring, peer coaching, workshops, re-supervision, preparation of learning improvement plans.

A coaching-oriented supervision model has proven to be more effective than an administrative inspection approach.

Educational supervision is a systematic professional development process designed to improve teacher competence and the quality of learning. Modern supervision is no longer viewed as an inspection activity focused on administrative assessments, but rather as a collaborative process that encourages reflection, constructive feedback, and ongoing teacher professional development. This paradigm shift positions the principal as the instructional leader who acts as a facilitator, mentor, and coach in supporting the improvement of the quality of learning.(Subni et al., 2024) (Regassa & Mamo, 2024)

The first stage is supervision planning, namely the systematic development of a supervision program that includes objectives, implementation schedules, observation instruments, assessment indicators, and evaluation and follow-up mechanisms. Thorough planning allows for more objective, focused supervision, and aligned with teachers' professional development needs. Furthermore, identifying teachers' needs early on provides the basis for developing more effective development strategies, ensuring that supervision is not merely administrative but truly supports improvements in the quality of learning.(Setiyadi et al., 2025) (Rahma, 2025)

The next stage is implementation of supervision, conducted through observation of the learning process, review of teaching materials, interviews with teachers, analysis of student learning outcomes, and documentation of learning practices. At this stage, principals need to adopt a humanistic, collaborative, and individual-

needs-based approach. Supervision utilizing coaching techniques has been shown to improve pedagogical competence, reflective skills, learning innovation, and teacher motivation because teachers are actively involved in identifying strengths and areas for development. This approach also strengthens a culture of professional learning in schools.(Samsudin et al., 2026) (Puspitasari et al., 2025)

Level feedback is the core of the supervision process. Effective feedback includes not only an evaluation of teacher deficiencies but also recognition of good practices and specific, realistic, and implementable recommendations. Recent research indicates that the quality of the supervisor-teacher relationship is a more important determinant of supervision success than simply the frequency of observations. A professional relationship based on mutual trust will increase teacher receptivity to feedback and encourage ongoing changes in instructional practices.(Clark-Gareca & Warkentin, 2024) (Bachtiar Hariyadi, 2024)

The last stage is follow-up, which is an indicator of the success of educational supervision. The results of supervision should be implemented through various professional development programs, such as training, individual mentoring, peer coaching, teacher learning communities, workshops, and follow-up supervision to monitor teacher competency development. Without planned follow-up, supervision only produces evaluation data without having a real impact on improving the quality of learning. Several recent studies have shown that ongoing supervision supported by coaching programs results in more significant improvements in pedagogical competence, teacher professionalism, and learning quality than supervision focused solely on administrative compliance.(Gulo et al., 2026) (Deky Magay, 2024)

7.7 Effective Strategies for Implementing Instructional Leadership and Supervision

Some strategies that can be applied to educational units include:

1) Building a culture of reflection and collaboration
2) Implementing supervision based on teacher needs
3) Integrating supervision with continuing professional development
4) Utilizing digital technology in learning observation and documentation
5) Using assessment data as a basis for decision making
6) Developing a professional learning community
7) Rewarding good teacher practices.

This approach is in line with the development of digital-based and collaborative academic supervision which is increasingly being implemented in various schools.(Abdullah et al., 2025) (Sabilla Nurfariza & Kuriaya, 2026)

The academic supervision strategies outlined demonstrate a paradigm shift from administrative supervision to one focused on improving teachers' professional capacity. Supervision is no longer viewed solely as an assessment activity, but rather as a coaching process that emphasizes reflection, collaboration, data utilization, and ongoing professional development. This approach aligns with the concept of instructional leadership which positions the principal as a learning facilitator and teacher competency developer through systematic mentoring.(Hermawan et al., 2026)

Building a culture of reflection and collaboration is the main foundation in creating a learning organization in schools. Through collaborative reflection, teachers can identify strengths and weaknesses in their teaching practices, share experiences, and collectively develop solutions. This fosters a culture of continuous learning and increases the effectiveness of classroom instruction.

Recent research shows that digital-based professional learning communities can expand teacher collaboration, accelerate knowledge sharing, and improve the quality of ongoing professional development.(Jin et al., 2024) (Liu et al., 2024)

The implementation of supervision based on teacher needs also reflects a more personal approach (*personalized supervision)*. In practice, the results of classroom observations and teacher performance analysis are used as a basis for determining the appropriate form of coaching for each teacher's needs. This approach has proven to be more effective than uniform supervision because it provides relevant feedback, increases work motivation, and strengthens teachers' pedagogical and professional competencies.

The integration of supervision with the Continuing Professional Development (CPD) program demonstrates that supervision is part of a continuous cycle of improving educational quality. Various studies confirm that supervision results will have a more significant impact if followed up through training, mentoring, and mentoring. coaching, mentoring, and activities Professional Learning Community (PLC). Thus, supervision does not stop at the evaluation process, but continues into a professional learning process oriented towards improving the quality of learning.(Helen et al., 2026)

The use of digital technology in academic supervision is a growing innovation in the era of digital transformation in education. Various digital platforms enable flexible learning observations through video recordings, virtual classrooms, electronic portfolios, and student-based feedback systems. Cloud, digitizing supervision improves efficiency, transparency, accountability, and documentation quality, making the teacher development process more effective and sustainable.(Sermal & Yunus, 2025)

In addition, the use of assessment data as a basis for decision making indicates implementation. Data-driven decision making in academic supervision. Data from student assessments, learning observations, and digital learning platform analysis can be used to identify student learning needs and determine more appropriate learning strategies. A data-driven approach helps principals and teachers make objective, measurable decisions that are oriented toward improving learning outcomes.(Hase & Kuhl, 2024)

Development Professional Learning Community (PLC) and rewarding good teacher practices further strengthen intrinsic motivation and a culture of innovation in schools. PLCs provide a space for teachers to learn from each other, discuss, reflect, and collaboratively develop learning innovations. Furthermore, rewarding good practices serves as a form of positive reinforcement that encourage teachers to continuously improve the quality of their performance. The combination of these two strategies contributes to the formation of a quality culture that supports the continuous improvement of teacher professionalism and the quality of education.

7.8 Implementation Challenges

The implementation of instructional leadership and educational supervision still faces several obstacles, including:

1) The high administrative burden on the principal
2) Limitations of supervisor competence
3) Teacher resistance to supervision
4) Time limitations for carrying out class observations
5) Suboptimal use of technology
6) The culture of professional reflection has not yet developed.

Therefore, it is necessary to strengthen the competency of school principals as learning leaders, simplify administration, improve

digital literacy, and develop a collaborative culture so that supervision truly becomes a means of improving the quality of learning.

The implementation of instructional leadership and educational supervision in schools still faces various challenges that affect the effectiveness of improving the quality of learning. One major obstacle is the high administrative burden on school principals. Complex administrative demands cause principals to allocate more time to bureaucratic tasks than to fulfill their primary function as administrators. Instructional leader This situation reduces the intensity of teacher coaching, learning observations, and the provision of constructive feedback. Recent research shows that administrative workload and time constraints are major barriers to the implementation of effective instructional supervision.(Abdullah & Maknunah, 2024)

Furthermore, supervisor competency remains a challenge. Not all principals and supervisors possess adequate skills in conducting coaching-based supervision, learning analysis, providing reflective feedback, and providing professional mentoring to teachers. Supervision focused on administrative assessments tends to have little impact on improving teacher competency. Therefore, developing principal capacity through instructional leadership training, coaching, mentoring, and data-driven supervision is an urgent need.(Alladatin et al., 2023)

Another obstacle is resistance from some teachers to supervision. There's still a perception that supervision is merely a fault-finding or performance evaluation activity, which can lead to anxiety and defensiveness. However, the modern supervision paradigm positions supervision as a collaborative process aimed at improving teacher professionalism through reflection, dialogue, and ongoing feedback. A participatory supervision approach has proven

more effective in building a culture of professional learning in schools.(Rahma, 2025) (Suciati & Usadiati, 2023)

Classroom observations are often hampered by time constraints due to the principal's busy schedule. As a result, learning observations cannot be conducted routinely, and follow-up on supervision results is less than optimal. Yet, systematic classroom observations accompanied by collaborative reflection are at the heart of instructional leadership, providing authentic information about the quality of the classroom learning process.

On the other hand, the use of digital technology in educational supervision remains suboptimal. Many schools have yet to utilize digital platforms to document observation results, analyze learning data, monitor supervision follow-up, or build professional communication between principals and teachers. Digital transformation in supervision enables the coaching process to be more efficient, documented, transparent, and data-driven, thus supporting more accurate decision-making.

Another challenge is the lack of a culture of professional reflection in schools. Reflection is often viewed as a formality, even though it is an essential part of learning. Continuous professional development. Schools that have a culture of reflection encourage teachers to critically evaluate learning practices, share experiences, and collaborate through *Professional Learning Community* (PLC), and continuously improve learning based on empirical evidence. This culture is the foundation for creating a learning organization which is oriented towards continuous quality improvement.(Rahma et al., 2025)

Based on these challenges, strengthening instructional leadership needs to be directed at simplifying the administrative burden on principals, improving supervisory competency through

ongoing training, developing a collaborative supervision culture, optimizing the use of digital technology, and fostering a culture of professional reflection among teachers. Thus, educational supervision is no longer viewed solely as an evaluative activity, but rather as a professional mentoring process capable of continuously improving teacher competency, learning quality, and education quality. This approach aligns with the development of the 21st-century educational leadership paradigm, which positions principals as agents of change, facilitators of learning, and drivers of a culture of quality in schools.

7.9 Conclusion

Instructional leadership and educational supervision are two key pillars in the implementation of education, oriented towards improving the quality of learning in educational units. Instructional leadership directs the principal to act as a learning leader capable of developing an academic vision, managing curriculum implementation, empowering teachers, creating a conducive learning climate, and utilizing various educational data as a basis for designing and evaluating school programs. On the other hand, educational supervision serves as a means of professional development that supports teachers in reflecting, improving competency, and developing more effective learning practices tailored to student needs.

The implementation of instructional leadership supported by systematic, collaborative, and continuous educational supervision significantly contributes to improving the quality of the learning process, strengthening teacher professionalism, fostering a collaborative learning culture, and increasing the effectiveness of school management. The integration of these two aspects encourages the creation of an educational environment that is adaptive to change, open to innovation, and oriented toward continuous quality

improvement through decision-making based on evidence and evaluation results.

However, its implementation still faces various challenges, including the high administrative burden on school principals, limited competence in carrying out coaching-based supervision, low utilization of digital technology, limited time for classroom mentoring, and the lack of optimal development of a culture of professional reflection. Therefore, it is necessary to strengthen the leadership capacity of school principals, optimize a more humanistic and teacher-needs-based supervision system, utilize digital technology in learning management, and develop professional learning communities that can encourage collaboration and innovation on an ongoing basis.

Ultimately, the success of instructional leadership and educational supervision is not only measured by the implementation of supervision programs or the fulfillment of administrative aspects, but also by the extent to which both are able to improve the quality of learning, strengthen teacher competency, build a culture of quality in schools, and produce students who possess the competence, character, and ability to adapt to developments in science, technology, and the challenges of 21st-century education. Thus, the synergy between instructional leadership and educational supervision becomes a strategic foundation in realizing educational units that are superior, innovative, and oriented towards continuous quality improvement.

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Chapter 8
Community Participation in Expanding Access and Improving the Quality of Education

8.1 Introduction

Education is a key instrument in developing the quality of human resources while strengthening the capacity of communities to face social, economic, technological, and cultural change. Expanding access to education is not simply defined as increasing the number of students who have the opportunity to attend school; it must also be accompanied by the provision of adequate educational services. Inclusive, fair, safe, relevant and high quality SDG 4 places equal access and quality education as two interrelated dimensions. UNESCO data shows that although the number of students gaining access to education globally continues to increase, some groups still face barriers to obtaining and completing education, primarily due to location, socioeconomic conditions, disabilities, and various other forms of inequality.(UNESCO, 2026)

In this context, improving the quality of education cannot be solely the responsibility of the government and schools. Education is a shared responsibility that requires the involvement of various elements within the education ecosystem, including families, communities, social organizations, the business and industrial world, universities, local governments, and other stakeholders. The involvement of various parties is necessary because schools exist in a social environment with diverse needs, characteristics, potential, and issues. UNESCO emphasizes that achieving equitable education goals requires an approach that reaches disadvantaged groups and

strengthens collaboration among education stakeholders.(UNESCO, 2024)

The role of the community is becoming increasingly important because they possess resources, local knowledge, experience, social networks, and concerns that can be leveraged to support the provision of education. Effective community participation extends beyond material assistance to schools, encompassing involvement in decision-making processes, providing input on school programs, supporting educational resources, overseeing educational services, and conveying the aspirations of students and parents. Thus, the community can be positioned as a strategic school partners, not only as a recipient of information or a party asked to provide assistance when the school faces limited resources.

In perspective School-Based Management (SBM) Community involvement is closely linked to the principles of participation, transparency, accountability, and independence of educational units. Schools are given greater space to develop programs tailored to student needs and environmental characteristics, while the community is given the opportunity to participate in the development process. The OECD (2024) indicates that educational transformation in Indonesia is directed at strengthening school communities, fostering autonomy, developing core competencies, and improving the quality of the learning process. This demonstrates that successful educational reform requires an ecosystem that enables schools, teachers, students, parents, and the community to work collaboratively.(OECD, 2024)

Community involvement is also increasingly relevant in addressing the complexity of education issues. Issues such as disparities in access, low-quality learning, limited facilities, the digital divide, the needs of students with special needs, and the demands of developing 21st-century competencies cannot be addressed by

schools alone. Data from the UNESCO Institute for Statistics shows that education indicators encompass not only participation and completion of education, but also the learning environment, teachers, financing, equity, skills, and the quality of the educational process (UNESCO Institute for Statistics, 2024). The complexity of these indicators demonstrates that improving education quality requires cross-sectoral support and the involvement of various stakeholders.(UNESCO Institute for Statistics, 2024)

At the educational unit level, school committee is an institutional form that allows for more structured community participation. Research by Nisaa' and Rahayu (2024) shows that school committees contribute to the decision-making process, program monitoring and evaluation, and collaboration with teachers and parents to resolve various educational issues. These findings demonstrate that community involvement in school governance can provide added value when participation is directed toward the school's real needs and the interests of students.(Nisaa' & Rahayu, 2024)

In policy terms, the function of the school committee also reflects the paradigm that the community is part of the mechanism for improving the quality of education. The school committee can provide input on education policies, support the provision of resources, oversee educational services, and channel community aspirations and complaints to the school. In its implementation, community support must remain grounded in the principles of transparency, accountability, volunteerism, and the best interests of students. Provisions regarding resource support also emphasize that educational resource mobilization must be carried out in the form of assistance and/or donations, not levies.

Apart from playing a role in supporting schools, the community has an important position in building educational accountability Public oversight can help ensure that school programs are implemented according to plan, resources are used responsibly, and educational services are truly oriented towards student needs. In this context, public oversight should not be understood as an act of finding fault with schools, but rather as a participatory mechanism to provide input, identify gaps, and encourage continuous improvement. This approach aligns with developments in educational governance that increasingly emphasize the use of data, transparency, collaboration, and evidence-based decision-making.

The relationship between schools and the community also needs to be directed towards development. Collaborative education ecosystem TALIS 2024 results show that professional relationships within the school community, including those between teachers, principals, parents, and the broader community, are linked to teacher support and the school's ability to meet student needs (OECD, 2025). Therefore, building communication and trust between schools and the community is not merely a matter of institutional relationships, but is part of the effort to create an educational environment that supports student learning and development.(OECD, 2025)

Based on this description, Community participation in expanding access and improving the quality of education needs to be positioned as a systematic, sustainable partnership process that is oriented towards the interests of students. Society can carry out four strategic functions, namely as (a) advisor, through conveying aspirations and recommendations regarding school policies and programs; (b) provide direction and support, through contributions of ideas, energy, facilities, infrastructure, networks and other resources; (c) supervisory implementer, through monitoring transparency,

accountability, and quality of educational services; and (d) mediator, by bridging communication and collaboration between the government, schools, families, businesses, universities, community organizations, and various other stakeholders. These four functions, if implemented proportionally, can strengthen school governance while creating a more effective education. Equitable, quality, inclusive, participatory, and sustainable.

Community participation is a crucial pillar in the implementation of democratic, participatory education, oriented toward improving quality. Within the School-Based Management (SBM) paradigm, communities are no longer positioned as objects of educational development, but rather as strategic partners contributing to the planning, implementation, monitoring, and evaluation of educational programs. Community involvement is a crucial factor in expanding equitable access to education while simultaneously improving the quality of educational services through collaboration between schools, parents, the business world, community organizations, and the government. This participation strengthens accountability, transparency, and the effectiveness of school management, thereby producing graduates who meet the needs of society and current developments.(Dzakwan, 2024) (Sukinawan et al., 2025)

Normatively, community participation in education in Indonesia is realized through the existence of school committees, which serve as a forum for community aspirations. School committees not only play a role in mobilizing resources but also fulfill strategic functions as advisory, supporting, controlling, and mediating agencies. These four functions complement each other in realizing quality and sustainable education governance.

8.2 Role as Advisor (*Advisory Agency*)

The advisory function is a form of community participation in providing input into the formulation of policies, programs, and decision-making within educational units. The school committee, together with parents and community leaders, can provide recommendations regarding the development of the school's vision and mission, the School Work Plan (RKS), the School Activity and Budget Plan (RKAS), the development of the educational unit's operational curriculum, and strategies for improving the quality of learning. With consideration from various community elements, school decisions become more objective because they take into account student needs, environmental characteristics, and regional potential. This process also fosters a sense of ownership (*sense of ownership*) community towards schools so that various educational programs receive wider support.

In addition to providing input on school policies, the community can also weigh in on priorities for infrastructure development, teacher competency improvement, literacy program implementation, character building, and the application of technology in learning. Community perspectives are a crucial source of information for schools in identifying the real needs of students and the surrounding environment. Therefore, decisions made are not only oriented toward the school's internal interests but also address the demands of the community's social, economic, and cultural developments.

The advisory function is a strategic form of community participation in supporting democratic, responsive, and quality-improving governance of educational units. In this context, the community is positioned not only as recipients of educational services but also as partners of the school, able to convey aspirations,

experiences, information, and environmental needs as input for the planning and decision-making process. This involvement can be achieved through the school committee, parents or guardians of students, community leaders, the education community, or other community elements concerned with school development.(Sumarti, 2026)

Providing consideration can be realized through community involvement in providing input on the school's vision and mission, School Work Plan (RKS), School Activity and Budget Plan (RKAS), educational unit operational curriculum, teacher competency improvement programs, school culture development, and strategies for improving the quality of learning. Thus, the decision-making process is not only based on the school's internal perspective, but also considers social conditions, student characteristics, family needs, environmental potential, and community developments. Recent research shows that community participation through parent forums and committees can contribute to the planning, implementation, and monitoring of school programs.(Arifin, 2026)

From a school-based management perspective, the advisory function is crucial because educational management demands decision-making that is increasingly aligned with the needs of the educational unit. School committees can help schools identify issues and determine priorities based on information gathered from the community. For example, the community can provide input on the need for infrastructure development, strengthening literacy and numeracy, improving educator competency, developing student activities, strengthening character, utilizing learning technology, and programs related to the social and cultural needs of the surrounding community. In this way, school planning can become more contextual and less administrative.(Nurwanti, 2026)

The advisory function also has a strategic dimension in building school accountability. Community input can be a mechanism to ensure that school policies and programs truly address student needs and are accountable to stakeholders. Studies on school committee involvement show that structured involvement in school governance can go hand in hand with participatory leadership and contribute to improving school quality. Other research also shows that management planning and school committee participation are linked to efforts to improve the quality of basic education.(Nugraha, 2025)

Furthermore, providing input can strengthen the community's sense of ownership of the school. When the community is given space to express its needs and ideas, there is a greater opportunity to build trust, communication, and shared responsibility for the success of educational programs. Parental involvement is also influenced by the quality of communication and the school's organizational climate. Therefore, schools need to create open, regular, and easily accessible communication mechanisms so that community input does not stop at formal forums but truly becomes part of the school improvement process.(Khomarudin, 2024)

However, the advisory function must be implemented within clearly defined authority boundaries. Community participation is not intended to replace the authority of principals, teachers, or educational unit administrators, but rather to build partnerships in the educational management process. Community considerations should be based on data, student needs, applicable regulations, school resource capabilities, and quality improvement priorities. Therefore, final decisions must still be made through legitimate, transparent, and accountable school governance mechanisms.(Ovaningsih, 2024)

Regional policy developments also demonstrate that the school committee remains a crucial instrument for strengthening community

participation and accountability in education governance. For example, Yogyakarta Mayoral Regulation Number 39 of 2025 places the school committee within the framework of providing consideration, direction, support, and oversight of education delivery. Meanwhile, Yogyakarta Special Region Governor Regulation Number 28 of 2025 emphasizes the importance of optimizing the role of the school committee by considering the region's social, economic, cultural, and geographic characteristics.(Kittilap, 2024)

Based on this description, the advisory function can be understood as a collaborative mechanism that connects school needs with community aspirations. Its success is determined not only by the presence or absence of a consultation forum, but also by the extent to which community input is processed into relevant information, considered in setting priorities, translated into school programs, and followed up through evaluation. Thus, community participation can evolve from merely symbolic involvement to substantive participation that makes a real contribution to improving the quality of education.(Shah, 2024)

Thus, the community's role as advisory voice plays a crucial role in developing participatory, contextual, and quality-oriented school management. Through collaboration between schools, committees, parents, and the community, educational decisions can be formulated based on the real needs of students and the community. Ultimately, this involvement can strengthen transparency, accountability, trust, and community ownership of schools, supporting the sustainable improvement of educational quality.

8.3 Role as Provider of Support for Personnel, Facilities and Infrastructure (*Supporting Agency*)

Community participation is also demonstrated through support for the provision of education. This support is not limited to financial assistance, but includes contributions of energy, ideas, professional expertise, the provision of learning facilities, and the development of a conducive school environment. Parents can participate as resource persons in project-based learning activities, businesses can provide internship programs or educational technology assistance, and the community can collaborate in the construction and maintenance of school facilities. These diverse forms of support strengthen schools' capacity to provide quality educational services without relying entirely on government funding.

Community support also contributes to expanding access to education, particularly for schools in areas with limited resources. Assistance in the form of scholarships, school transportation, the construction of libraries, laboratories, study rooms, and internet access are concrete examples of community participation in improving student learning opportunities. This collaboration creates a more inclusive education ecosystem, ensuring that all students have the opportunity to receive quality education services regardless of socioeconomic constraints.(Khausar & Anwar, 2023)

Community participation in education needs to be understood as a broad and sustainable partnership. Community support extends beyond financial contributions to the program, but can also be realized through the provision of manpower, ideas, professional expertise, learning facilities, technology, and involvement in creating a safe, inclusive, and supportive school environment. Parents, for example, can act as learning partners through involvement in school activities and as sources of experience and expertise. Business and

industry can contribute through the provision of technology, skills development, work experience programs, and support for learning innovations. Meanwhile, community organizations and local communities can participate in the development of facilities and activities that support student needs.

This perspective demonstrates that community support has broader dimensions than simply meeting school resource needs. Community participation can be part of collaborative education governance. UNESCO, through *Global Education Monitoring Report 2024/5*emphasizes that the involvement of parents and community members in school governance can strengthen decision-making processes, resource management, accountability, and create a more inclusive and resilient educational environment. Therefore, schools need to establish participatory mechanisms that enable various stakeholders to make meaningful contributions according to the school's capacity and needs.

Community support also has strong relevance for expanding access and equalizing educational opportunities. In educational institutions facing limited resources, contributions in the form of scholarships, transportation facilities, library and laboratory development, the provision of study spaces, technological devices, and internet access can help reduce barriers faced by students. These efforts are increasingly important because there are still groups of students who face barriers to obtaining and completing an optimal education. UNESCO notes that despite progress in educational participation since 2015, the most difficult-to-reach groups still face the risk of being left behind in accessing education services.

In the context of quality improvement, community participation can expand the resources and experiences available to schools. Parent and community involvement allows schools to gain more diverse

perspectives on student needs and the characteristics of their social environment. This collaboration can also encourage schools to develop programs that are more contextual and responsive to community needs. This aligns with UNESCO recommendations that prioritize collaboration as a crucial dimension of educational leadership. Schools cannot function optimally individually; they require collaboration with teachers, students, parents, and community members to achieve shared educational goals.

However, community participation must be implemented based on the principles of equality, transparency, accountability, inclusiveness, and a clear division of roles. Community support should not be positioned as a substitute for the government's responsibility to guarantee every citizen's right to education, but rather as a collaborative force that strengthens school capacity. Therefore, schools need to ensure that the forms of participation they develop do not create new gaps between schools with strong community support and those in environments with limited resources. Community participation should be directed towards strengthening equity, not widening inequalities.

Thus, community support is a crucial component in building a quality and equitable education ecosystem. The success of community participation is not solely determined by the amount of assistance provided, but primarily by the quality of engagement, the sustainability of partnerships, the relevance of support to school needs, and its impact on students. Planned collaboration between schools, families, businesses, community organizations, and the government can ultimately strengthen school capacity, expand access to education, improve service quality, and create a more inclusive and sustainable learning environment.

8.4 Role as an Implementer of Educational Supervision at the Educational Unit Level (*Controlling Agency*)

The oversight function aims to ensure that all educational programs are implemented transparently, accountably, effectively, and in accordance with applicable regulations. In carrying out this function, the community, through the school committee, monitors the implementation of school programs, budget utilization, maintenance of facilities and infrastructure, the quality of learning services, and the achievement of educational quality indicators. This oversight is constructive, providing feedback and recommendations for improvement, rather than finding fault with the school. Thus, community oversight is part of an internal quality assurance mechanism that encourages the establishment of a culture of quality within the school environment.(Betry & Zakir, 2024)

Effective oversight also increases public trust in schools. Transparency in financial management, openness of information regarding school programs, and the submission of accountability reports to the public reflect good school practices.*good governance* in education. This trust ultimately strengthens community participation because they feel that their contributions are managed responsibly and provide tangible benefits to improving the quality of education.

Community involvement in educational oversight is a form of public participation that can strengthen the accountability of school administration. Through school committees, communities have a space to obtain information, provide input, and provide input on various aspects of educational unit management. This oversight can encompass the implementation of school programs, the use of resources and budgets, the management of educational facilities, the implementation of learning, and the development of student quality outcomes. Thus, the community is positioned not only as a

beneficiary of education but also as a partner, ensuring that school resources and programs are directed toward meeting student needs and achieving educational goals.

Community oversight is ideally implemented through an objective, dialogical, and problem-solving approach. This means that oversight activities are not directed at finding deficiencies or putting pressure on the school, but rather at identifying conditions that need improvement based on reliable information and evidence. Schools can use community input as a reflection to evaluate program effectiveness, identify gaps between planning and implementation, and determine corrective measures. This approach aligns with the concept of continuous quality improvement, which places evaluation and feedback as the foundation for educational organizational development.

In practice, oversight also needs to be supported by information transparency. Schools need to establish communication that enables the public to understand policy direction, priority programs, resource utilization, and achieved results. This transparency is important because it provides the public with an opportunity to understand how educational responsibilities are being carried out by educational institutions. The OECD (2024) indicates that stakeholder involvement in education can strengthen the decision-making process and create a shared understanding of the goals and responsibilities of each party. Therefore, information transparency is not merely an administrative issue, but also part of building trust between schools and the community.

Participatory supervision can also strengthen quality assurance mechanisms at the educational unit level. Community findings, input, and recommendations can serve as additional sources of information in the school evaluation process. This information can then be used

to determine improvement priorities, develop follow-up actions, and monitor progress. This approach connects the supervisory function to the quality improvement cycle, as the results are not simply reports but serve as a basis for making changes and developing school programs.

In addition to contributing to the quality of school management, community oversight can bolster public trust. When schools demonstrate transparency in managing programs and resources and respond to community input, the perception is created that the school carries out its responsibilities professionally and responsibly. This trust is crucial because community participation in education is strongly influenced by the belief that contributions are truly managed for the benefit of students and to improve the quality of education services.

UNESCO (2024/2025) also emphasizes the importance of educational leadership capable of building collaboration with various stakeholders. In the school context, the community, parents, teachers, students, and school committees can become part of a mutually supportive ecosystem in achieving educational goals. Therefore, the supervisory function should not be positioned as a rigid relationship between the supervisor and the supervisee, but rather as a partnership that allows both parties to provide information, considerations, and solutions.

Thus, community oversight through school committees serves a broader function than simply controlling the implementation of education. Oversight can be an instrument for strengthening transparency, accountability, public trust, and continuous quality improvement. Its effectiveness depends heavily on the school's openness, quality communication, objective use of information, and the willingness of all parties to follow up on the oversight results. If

these principles are consistently applied, community participation can develop into a strategic force in building a culture of quality and realizing participatory, responsive, and student-centered school governance.

8.5 Role as a Mediator between the Government/Schools and Other Educational Ecosystems (*Mediating Agency*)

As mediators, communities serve as bridges for communication between schools, government, parents, business and industry, universities, professional organizations, non-governmental organizations, the media, and various other stakeholders. This mediation function is crucial in building partnerships that support school development. School committees can convey community aspirations to the government and disseminate education policies to the community, creating effective two-way communication. This role helps reduce information gaps and strengthen collaboration in education delivery.

In the era of digital transformation and the implementation of the Independent Curriculum, the role of mediators is increasingly strategic because schools require extensive collaborative networks. Through partnerships with universities, schools receive academic mentoring; through the business and industrial sectors, support for innovation, technology, and social responsibility programs is provided; and collaboration with local governments enables synchronization of educational development programs. This synergy between stakeholders accelerates improvements in educational quality while expanding access to various learning resources and student development opportunities.

Overall, The community has an important position as a mediator in the management and development of educational units. This role is realized through efforts to align school interests with the aspirations of the community, government, parents, and various educational partners. The presence of the community as a liaison can create a more open flow of information, strengthen trust between stakeholders, and encourage joint involvement in resolving various educational issues. Thus, the relationship between schools and the community is not merely informative but develops into a partnership that supports decision-making and improves the quality of educational services.(Ministry of Elementary and Secondary Education, 2025)

Changes in the educational environment due to digitalization, technological developments, and the implementation of increasingly flexible learning policies Increasingly, schools' need for partnership networks is expanding. In this context, communities, through school committees, can help establish strategic relationships with universities, businesses and industry, local governments, communities, and other institutions. Each partner can contribute according to their capacity, such as strengthening competencies, providing learning resources, developing innovation, utilizing technology, and supporting school programs. This type of cross-sector collaboration is increasingly relevant because educational transformation requires the involvement of various actors and cannot be solely the responsibility of schools as educational institutions.

The function of community mediator ultimately becomes an important instrument in building a participatory, responsive, and sustainable education ecosystem. The success of this function is largely determined by the quality of communication, clarity of role allocation, transparency of information, and the commitment of each

stakeholder to work toward the same educational goals. When productive relationships between schools, communities, governments, and other partners are built, various resources and opportunities for educational development can be more optimally utilized. Therefore, strengthening the mediator function needs to be directed not only at conveying aspirations, but also at creation of a collaborative network that is able to expand access, improve service quality, and strengthen the sustainability of educational unit development.(Ministry of Elementary and Secondary Education, 2026).

8.6 Conclusion

Expanding access and improving the quality of education is fundamentally a shared responsibility that cannot be addressed by the government and schools in isolation. The complexity of educational issues, such as unequal access, limited resources, technological change, diverse student needs, and future competency demands, requires the involvement of various elements within the education ecosystem. In this context, the community holds a strategic position because it possesses the knowledge, experience, resources, networks, and social potential that can be developed to support the provision of education.

Within the framework of School-Based Management, community involvement needs to shift from simply providing assistance to more substantive participation in education governance. Communities can contribute through four main functions: advisory agency, supporting agency, controlling agency, dan mediating agency These four functions illustrate that the community can be involved from the planning and input process, through providing support, monitoring the implementation of education, and building relationships between schools and various parties outside the school.

Function as advisor allows schools to gain a broader perspective in determining policies and program priorities. The aspirations of parents, school committees, community leaders, and other community elements can serve as sources of information for understanding student needs and environmental conditions more contextually. Meanwhile, its function as supporter Expanding school capacity through contributions of personnel, ideas, expertise, facilities, technology, networks, and other resources. This support can help schools reduce various barriers that impact learning opportunities and the quality of educational services.

Function supervision Providing space for the community to participate in ensuring that education is run transparently, accountably, effectively, and in accordance with established objectives. Constructive oversight can generate useful feedback for evaluating and improving school programs. This position positions the community not as a party simply looking for school weaknesses, but as a partner contributing to the creation of a culture of continuous quality improvement.

As for the function mediator Strengthening relationships between schools and the government, families, universities, business and industry, community organizations, communities, and other stakeholders. This function enables the development of collaborative networks that can open access to knowledge, learning resources, technology, mentoring, facilities, and various opportunities for student development. In the face of increasingly rapid social change and technological development, these networks are a crucial resource for schools to adapt and improve the relevance of their educational services.

These four functions need to be implemented in an integrated manner based on the principles participation, equality, transparency,

accountability, inclusivity, voluntariness, and the best interests of students Community participation should not be interpreted as a transfer of government responsibility to guarantee the right to education, but rather as a form of strengthening the capacity and support of educational institutions. Therefore, community contributions must be directed so as not to create new inequalities, but rather to help expand educational opportunities for groups facing various obstacles.

Ultimately, the success of community involvement is not determined solely by the amount of assistance or the number of activities undertaken, but by the extent to which such participation results in real changes to access, quality of services, and student development Relationships built through open communication, trust, collaboration, objective use of information, and consistent follow-up will create a stronger educational ecosystem. Thus, synergy between schools, communities, governments, families, and various educational partners is a crucial foundation for realizing quality education. Equitable, inclusive, high quality, responsive to change, and sustainable.

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Chapter 9
Educational Ecosystem in an Effort to Improve the Quality and Relevance of Education in a Measurable, Systematic and Sustainable Manner

9.1 Introduction

Education is essentially a system that does not stand alone, but rather is formed through dynamic relationships between students, educators, educational institutions, families, communities, government, the workplace, universities, technology, and the social and cultural environment. Therefore, improving the quality of education cannot be achieved simply by improving the classroom learning process. Educational quality needs to be placed in a holistic perspective. Ecosystem, namely a unity that allows various educational actors and subsystems to interact with each other, share resources, generate knowledge, solve problems, and make continuous improvements. UNESCO-IBE emphasizes that education can be understood as an ecosystem that requires a systemic, holistic, participatory, inclusive, and contextual approach.(UNESCO-IBE, 2023)

The ecosystem perspective is becoming increasingly important because demands on education are no longer limited to students' ability to master academic knowledge. Education is required to produce individuals with competence, character, adaptability, digital literacy, critical thinking, creativity, collaboration, and readiness to face social change and the world of work. The OECD (2024) emphasizes that education systems need to prepare students with the

knowledge, skills, attitudes, and values that enable them to face a future full of change. Therefore, the relevance of education must be built through the connection between educational goals, student needs, societal developments, technological changes, and the needs of the professional world.(OECD, 2024)

In the Indonesian context, strengthening the education ecosystem is also closely linked to the transformation of education policies that encourage student-centered learning, strengthening core competencies, teacher flexibility, contextual learning, and strengthening school communities. The OECD (2024) indicates that Indonesia's education reform through Freedom to Learn (Merdeka Belajar) is oriented towards improving learning outcomes, providing more meaningful learning experiences, strengthening core competencies and 21st-century skills, and increasing teacher and school autonomy.

Furthermore, Minister of Education and Culture Regulation Number 26 of 2025 concerning Management Standards for Early Childhood Education, Elementary Education, and Secondary Education Place planning, implementation, and supervision as a unified internal quality assurance process to support continuous quality improvement. The regulation also emphasizes the implementation of School/Madrasah-Based Management and information system support in education management.

Thus, a quality education ecosystem is not just a collection of educational institutions and actors, but a network of relationships that is designed, managed, measured, evaluated, and continuously improved to produce quality learning and graduates that are relevant to the needs of society.

9.2 Concept of Educational Ecosystem

The education ecosystem can be understood as a system consisting of various actors, resources, institutions, policies, processes, values, and environments that interact to achieve educational goals. From this perspective, schools are not viewed as the sole centers of education. Schools are one node in a broader network involving families, communities, governments, universities, businesses and industry, professional organizations, social institutions, and various technology platforms.

The education ecosystem approach views the quality and equity of education as the result of the interconnectedness of various subsystems, including curriculum, evaluation, teacher development policies, and labor market needs. This means that changes in one component can impact others. A good curriculum, for example, will not produce optimal impact if it is not supported by teacher competence, an appropriate evaluation system, effective school leadership, and a connection to real-life needs.(Niemi, 2021)

A more recent perspective shows that the education ecosystem is interconnected with various sectors beyond education. The education ecosystem framework connects education with business, economic, government, health, and sustainability systems. These findings suggest that education needs to be understood as an adaptive and interdependent system, not as a structure operating in isolation.(Gamede et al., 2026)

Based on this understanding, The education ecosystem can be formulated as a network of actors and educational subsystems that interact with each other in a planned manner to create learning processes, governance, innovation, and educational outcomes that are high quality, relevant, inclusive, adaptive, and sustainable.

Education ecosystem Education is a complex and dynamic system formed through the interaction of various actors, institutions, resources, policies, learning processes, values, technology, and the social and economic environment. From this perspective, education cannot be understood solely as an activity that takes place in schools, but rather as a process involving various learning environments and stakeholders. Schools are an important part of a broader ecosystem, while families, communities, governments, universities, the business and industrial worlds, professional organizations, social institutions, and technology providers have complementary roles in achieving educational goals. This perspective places the relationships and interactions between components as important factors in determining the quality and relevance of educational outcomes.

The educational ecosystem approach emphasizes the importance of interconnectedness among educational subsystems, such as the curriculum, evaluation system, teacher development policies, and labor market needs. Therefore, educational reform cannot be implemented in isolation, as changes to one component can have consequences for others. For example, a curriculum designed to meet changing times requires the support of competent teachers, an evaluation system capable of accurately measuring learning outcomes, effective educational leadership, and a link between learning and the needs of society and the workplace. Therefore, improving educational quality needs to be directed at strengthening interconnectedness and coordination among subsystems, not simply improving the performance of each component separately.

Recent research has expanded the concept of the educational ecosystem to include social, economic, health, technological, and sustainability dimensions. The sustainability of an education system is

influenced by its interconnectedness with broader sectors of society. This perspective demonstrates the reciprocal relationship between education and economic development, public health, technology, and sustainable development. Therefore, education policy needs to consider external environmental conditions and the education system's ability to respond adaptively to social and economic changes.

In the context of digital transformation, the education ecosystem is also experiencing changes in how students acquire knowledge, how teachers conduct learning, and how institutions manage educational information and services. The online education ecosystem has the potential to expand access, increase learning flexibility, and support collaboration. However, the use of technology also presents challenges in the form of digital access gaps, student engagement, teacher readiness, parental support, educator workload, and the appropriateness of learning and assessment methods. Therefore, digitalization of education cannot be understood simply as the provision of technological tools and platforms, but must be positioned as part of an ecosystem transformation that considers pedagogical, social, institutional, and equitable aspects of access.(Xalxo, 2025)

The ecosystem perspective is also increasingly relevant in addressing the demands of lifelong learning. The OECD (2025) emphasizes that digital transformation and demographic change require education systems to build individual capacity to continuously learn, adapt, and apply knowledge across diverse life contexts. Education, therefore, does not stop at academic achievement at a specific level, but needs to develop lifelong learning capabilities, digital skills, socio-emotional skills, and readiness for changes in the world of work. This reinforces the need to build closer relationships

between educational institutions, communities, the world of work, and various formal and non-formal learning environments.

Leadership is a crucial component in driving the education ecosystem. UNESCO, through its Global Education Monitoring Report 2024/2025, positions leadership as a strategic element in improving education quality. Educational leadership takes place not only at the level of school principals or institutional leaders but also encompasses various levels within the education system. Effective leadership requires establishing a clear vision and expectations, focusing on learning, encouraging collaboration, and developing human resource capacity. Thus, leadership serves as a mechanism that connects various actors and resources toward common educational goals.

The educational ecosystem approach ultimately changes the perspective on improving educational quality. Quality is not solely measured by students' academic achievement, but also by the education system's ability to provide equitable access, relevant learning, an inclusive environment, effective governance, responsible use of technology, educator competency development, and the connection of education to the needs of society and the world of work. This systems approach also requires a continuous feedback and evaluation mechanism so that each component can be improved based on data and changing needs. Studies on educational ecosystem management emphasize the increasing importance of a systems approach as developments in information technology and socio-economic changes make education part of an increasingly complex and sustainable learning network.

Based on this description, The educational ecosystem can be formulated as a dynamic network that brings together various actors, institutions, resources, policies, technologies, and learning

environments that interact with each other to produce quality, relevant, inclusive, adaptive, and sustainable education. The success of an education ecosystem is largely determined by the quality of relationships between its components, leadership capacity, multi-stakeholder collaboration, appropriate use of technology, and the system's ability to respond to change. Therefore, strategies for improving education quality need to shift from a partial approach to a systemic, collaborative, data-driven approach oriented toward continuous improvement.

9.3 Characteristics of a Quality Education Ecosystem

An educational ecosystem that supports quality improvement has several main characteristics, including:

1) Student-oriented; Students are the center of the entire educational ecosystem. All policies, programs, resources, learning, services, and evaluations are directed toward the development of students' full potential. This orientation does not mean solely pursuing academic grades. Education needs to address students' cognitive, social, emotional, moral, creative, health, character, and lifelong learning development. UNESCO emphasizes that learning objectives should not be limited to reading, mathematics, and science skills alone, but should also encompass students' ability to think and act responsibly.
2) Collaboration-based; The educational ecosystem demands the involvement of various parties. Principals, teachers, education staff, students, parents, school committees, the community, government, universities, the business world, and professional organizations have different but complementary contributions. Collaboration between families, schools, and the community positively contributes to students' academic achievement. This

impact can be sustained, while positive teacher feedback serves as one mechanism linking collaboration to learning outcomes. (Lv, 2025)

3) Data- and evidence-based: Educational decisions need to be based on data, not solely on perceptions or habits. Data can come from student learning outcomes, assessments, attendance, student engagement, teacher evaluations, satisfaction surveys, infrastructure conditions, graduate data, and program evaluation results. A data-driven approach enables schools to identify gaps between actual conditions and quality targets. In the context of Indonesian policy, Minister of Education and Culture Regulation Number 26 of 2025 places self-evaluation of educational units as the basis for planning to continuously improve the quality of the learning process and learning outcomes.
4) Adaptive to change; The education ecosystem must be able to respond to technological, demographic, social, economic, environmental, and workplace changes. The emergence of artificial intelligence, digital learning, automation, and changing job structures require schools and universities to continuously innovate. Technological advances, particularly AI, are transforming the context of education and employment, requiring education systems to enhance teacher capacity and update teaching practices.
5) Having a mechanism for continuous improvement; The education ecosystem must not stop at achieving annual targets. Each evaluation result must serve as the basis for determining subsequent corrective actions. Thus, quality becomes a cyclical process. In the Indonesian context, this pattern aligns with integrated education management. Planning, implementation, and supervision as part of internal quality assurance.

An educational ecosystem that supports quality improvement Essentially, quality is not solely determined by the quality of the learning process, but also by the interconnectedness of various elements that work systematically to achieve educational goals. Educational quality must be understood as the result of interactions between students, educators, school leadership, families, communities, resources, governance, the learning environment, technology, and evaluation mechanisms. UNESCO emphasizes that educational quality cannot be reduced solely to learning outcomes, but is also related to the quality of teachers, school infrastructure, and the availability of a safe and supportive learning environment.

The first characteristic is placing students at the center of educational ecosystem development. This orientation means that policies, curriculum, learning, academic and non-academic services, assessments, and school environment development must be directed at the needs and development of students. Quality is not solely measured by academic grades; it also requires attention to socio-emotional development, character, critical thinking skills, creativity, independence, well-being, and readiness for lifelong learning. UNESCO places teacher quality, a safe learning environment, and various supporting conditions as integral components of educational quality.

In a broader perspective, student orientation also demands that the education system builds learner agency, namely the ability of students to take an active role in their learning process. The OECD (2025) emphasizes the importance of developing students who are able to continuously learn, adapt, and apply knowledge in various life contexts. Therefore, quality education produces not only students who can pass exams, but individuals who have the capacity to face change and continuously develop their competencies.

Quality education also requires collaboration between various actors in the education ecosystem. Schools cannot operate in isolation from families and communities. Principals, teachers, education staff, students, parents, school committees, government, universities, the business and industrial sectors, and professional organizations need to have the space to contribute according to their respective roles. UNESCO in *GEM Report 2024/5*placing the ability of educational leaders to build collaboration and develop the capacity of school residents as one of the important dimensions of effective educational leadership.

Recent empirical findings strengthen this argument. Research by Lv, Yan, and Wang (2025) shows that family-school-community collaboration has a positive and sustainable relationship with student academic achievement. The study also found that positive teacher feedback is one of the mechanisms that bridges the relationship between collaboration and academic achievement, while self-regulated learning Students also influence these relationships. Therefore, collaboration in the education ecosystem should not stop at administrative involvement, but rather be directed at working together to solve learning problems and improve educational outcomes.

The next characteristic is decision-making based on data and evidence. Schools need valid information regarding learning outcomes, attendance, student engagement, assessment results, teacher performance, infrastructure conditions, student satisfaction, graduate development, and program effectiveness. This data is then analyzed to identify gaps between actual conditions and established standards or targets.

This approach is increasingly important in the context of school management in Indonesia. Minister of Education and Culture Regulation Number 26 of 2025 concerning Management Standards

places planning, implementation, and supervision as crucial components of effective and efficient education delivery. In fact, the Ministry of Primary and Secondary Education's latest policy practice emphasizes that educational unit work plans should be strategic instruments for quality improvement, utilizing real-world data on educational outcomes and involving the school community.

Data use also needs to be accompanied by the ability to translate data into action. UNICEF, through research, *Data Must Speak* demonstrates the importance of involving school actors as evidence users and agents of change, and adapting data utilization to local needs and contexts. (UNICEF, 2025) Thus, Data is not just an administrative document, but an instrument for diagnosis, decision-making, intervention, and quality evaluation.

A quality education ecosystem must be able to adapt to social, economic, technological, environmental, demographic changes, and the needs of the workplace. The development of artificial intelligence, digital learning, automation, and changing competency needs require schools to continuously update themselves. The OECD (2025) indicates that digital transformation and the development of AI are driving education systems to reconsider the competencies they need to develop to prepare students for a rapidly changing life and work world.(OECD, 2025)

Recent developments even show that AI is not only impacting learning, but also educational governance. *OECD Digital Education Outlook 202 6*states that generative AI can support teachers and education administrators, including in lesson planning, assessment development, curriculum alignment reviews, and learning resource management. However, the use of AI must remain within a clear pedagogical framework, as successfully completing tasks with AI assistance does not automatically result in meaningful learning.

Therefore, adaptability does not mean that schools follow every technological development without consideration, but have the capacity to select, test, integrate, and evaluate innovations based on learner needs and educational goals.

The final characteristic is a culture of continuous improvement. Quality improvement should not be understood as a one-time activity when a school faces accreditation or external evaluation, but rather as an inherent process within educational management. Monitoring and evaluation results should be used to identify problems, determine improvement priorities, implement interventions, measure their impact, and determine follow-up actions.

In this context, Minister of Elementary and Secondary Education Regulation Number 26 of 2025 provides an important foundation because management standards cover the planning, implementation, and supervision of educational activities. This approach can be operationalized through a quality assurance cycle such as Determination–Implementation–Evaluation–Control–Improvement (PPEPP**)**, so that each evaluation finding does not stop as a report, but becomes the basis for subsequent corrective action and quality improvement.

If these five characteristics are analyzed in an integrated manner, it can be seen that a quality education ecosystem works as an interconnected system student orientation determines primary goals; collaboration provides support and resources; data and evidence inform decision-making; adaptability maintains educational relevance; and continuous improvement ensures that quality continues to improve.

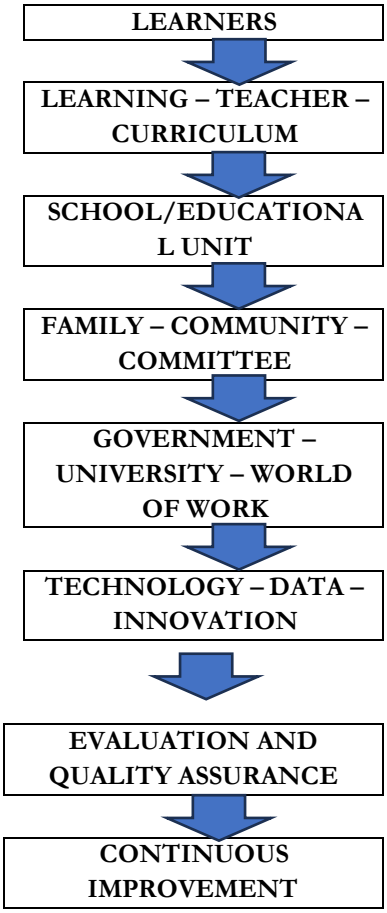
Thus, weaknesses in one component can impact the effectiveness of others. For example, a school may have comprehensive data, but without a collaborative culture, that data may

not translate into action. Similarly, a school may have sophisticated AI technology, but without appropriate teacher competencies and pedagogical principles, the technology may not necessarily improve the quality of learning. The OECD also emphasizes that future education systems need to combine the use of robust evidence with the capacity to innovate and anticipate change.

Therefore, The indicator of success of the educational ecosystem lies not only in improving academic scores, but in the system's ability to produce meaningful, inclusive, safe, relevant, adaptive and sustainable learning. This perspective aligns with UNESCO's view that educational quality encompasses both learning outcomes and the conditions that enable students to learn optimally.

9.4 Main Components of the Education Ecosystem

The education ecosystem can be visualized as follows:



These components do not operate in a linear fashion, but rather form a reciprocal relationship. For example, workplace needs can inform curriculum development; learning evaluation results inform teacher professional development; student data informs school

decision-making; and community participation can strengthen resources and the relevance of school programs.

The education ecosystem can be understood as a system that brings together various actors, resources, processes, and mechanisms that influence each other in achieving educational goals. Students are at the center of the ecosystem because all educational policies, learning, services, and management are ultimately directed toward their competency development and well-being. Within this system, teachers, curriculum, educational institutions, families, communities, government, universities, the workplace, technology, data, and innovation do not function in isolation but form a dynamic and interdependent relationship.

The relationship between schools, families, and communities is a crucial foundation of the educational ecosystem. Effective collaboration can expand support for student development while enhancing the school's capacity to respond to environmental needs.(Walker, 2025), through a systematic review, showed that home-school partnerships require relational and structural characteristics that enable both parties to work together to support student development. This finding is reinforced by (Anazia, 2025)which demonstrates the importance of alignment of values and expectations between teachers and parents in building effective educational partnerships.

However, collaboration does not form automatically.(Renbarger, 2025)Studies have found that schools and communities can face various obstacles in building partnerships, necessitating collaborative decision-making, trust, commitment, and capacity and infrastructure strengthening. Therefore, family and community involvement needs to be positioned as a strategic part of

education governance, not merely as a form of administrative participation.

Another increasingly important dimension of the education ecosystem is the use of data as a basis for decision-making. The availability of data does not automatically lead to improved quality.(El Mazbouh et al., 2025)Studies show that educational management information systems can generate vast amounts of data, but their use for improving educational outcomes still faces various challenges. Therefore, schools need the capacity to interpret data, relate it to the learning context, and use it as a basis for corrective action.

At the teacher level, data literacy is an important competency so that information from assessment results and learning data can be translated into pedagogical decisions.(Sandoval-Ríos et al., 2025)A systematic review emphasized the importance of data literacy training in improving the ability of teachers and prospective teachers to use information to support learning decision-making. At the leadership level,(Lee, 2024) shows that principal data literacy has various dimensions related to the ability to understand, assess, interpret, and use data for school leadership.

Thus, technology and data should not be positioned merely as administrative tools, but as instruments for organizational learning. Schools need to establish mechanisms that allow data to be collected accurately, analyzed critically, discussed collaboratively, and then translated into programs and improvement actions.(Decabooter, 2024)Studies show that human support through data coaching and professional learning communities plays a crucial role in helping schools use data effectively. This demonstrates that data-driven transformation still requires professional capacity and human collaboration.

Based on this perspective, an effective education ecosystem is not simply a collection of educational components, but rather a network of relationships that enable the exchange of information, resources, experiences, and learning among stakeholders. The quality of the ecosystem is determined by the school's ability to connect student needs with teacher capacity, curriculum relevance, family and community support, government policies, university knowledge, workplace needs, and the use of technology and data. Evaluation and quality assurance then serve as feedback mechanisms that identify gaps and guide corrective action.

Therefore, improving the quality of education needs to be directed at establishing a collaborative, adaptive, evidence-based ecosystem that is oriented toward continuous improvement. This approach positions schools not as isolated organizations, but as part of a social and institutional network that continuously learns from data, experience, student needs, and environmental changes. With such an ecosystem, quality improvement does not stop at meeting standards but develops into a continuous organizational learning process to enhance the quality, equity, and relevance of education.

9.5 The Role of Actors in the Education Ecosystem

Here are some of the roles of actors in the education ecosystem:

1) Government; Acts as regulator, facilitator, director, resource allocator, and supervisor of the education system. The government needs to ensure quality standards, equitable access, financial support, educator competency development, and an evaluation system capable of providing information for improvement. UNESCO (2024/2025) emphasizes that educational leadership lies not only at the school level, but also at the system and government levels. Successful educational change

requires alignment of vision, policies, resources, and leadership capacity at various levels.

2) The principal serves as the ecosystem director at the educational unit level. Their role extends beyond administration to include instructional leadership, developing a culture of quality, managing resources, strengthening collaboration, utilizing data, and building networks with the community. UNESCO (2024/2025) identifies four important dimensions of educational leadership : setting expectations, focusing on learning, building collaboration, and developing human capacity. All four are relevant as the foundation of leadership in the education ecosystem.
3) Teachers are key actors in translating policies and curricula into concrete learning experiences. Teachers need to possess pedagogical, professional, social, and personal competencies, as well as the ability to adapt to technology and changing student characteristics. The OECD (2024) emphasizes the importance of continuous teacher professional development, as changes in technology and learning needs require continuous updating of teacher competencies.

4) Family: Plays a role in building a learning environment at home, providing emotional support, monitoring children's development, and communicating with the school. A two-way relationship between school and family will strengthen the continuity of students' learning experiences.
5) Society and community can provide learning resources, authentic experiences, social support, resources, and local contexts that enrich learning. School-community collaboration can support educational quality through parental involvement, digital communication, social activities, parenting, and character

education. (Nugraha et al., 2025)

6) Universities serve as centers of knowledge, research, innovation, and teacher professional development, as well as partners with schools in addressing evidence-based educational issues. The relationship between schools and universities can also strengthen knowledge transfer and the development of innovative learning practices.
7) The business and industrial worlds; The world of work provides information on evolving competency needs. The relationship between education and the world of work is crucial so that graduates possess not only academic qualifications but also competencies relevant to social and economic needs.

An education ecosystem is a system formed through the interaction of various actors with different functions, resources, and responsibilities. The success of improving education quality is determined not only by the performance of schools as educational units, but also by the quality of relationships between the government, school leaders, teachers, families, communities, universities, and the business and industrial worlds. From an ecosystem perspective, each actor does not work in isolation but rather forms a collaborative network that influences each other. Therefore, complex educational issues require integrated governance, leadership at various levels, and a shared orientation toward student development and success.

UNESCO in *Global Education Monitoring Report 2024/5* emphasizes that educational leadership does not reside solely with the principal, but occurs at the school level, the education system, the government, and various actors influencing the direction of education. The report identifies four dimensions as essential elements of educational leadership: setting expectations and direction, focusing on learning, building collaboration, and developing human capacity.

The government plays a strategic role in creating an enabling environment for education to develop in a high-quality, equitable, and sustainable manner. This role includes formulating regulations, setting standards, allocating budgets, ensuring equal access, strengthening human resource capacity, and providing monitoring and evaluation systems. However, government effectiveness is not solely measured by the number of policies produced, but rather by its ability to ensure that these policies are effectively translated at the regional and educational unit levels.

In the context of the education ecosystem, the government needs to build alignment between educational vision, policies, resources, and evaluation mechanisms. Leadership at the system level is crucial because educational change requires cross-level coordination and the involvement of various actors. Thus, the government functions not only as a regulator but also as a facilitator, creating the conditions for schools and other stakeholders to make targeted improvements and innovations.

Principals play a central role in connecting education policies with real-world practices within educational units. Principal leadership can no longer be understood solely as an administrative activity, but rather as a process of mobilizing all school resources to orientate themselves toward learning and quality improvement. Principals need to build a shared vision, create a culture of quality, develop the competencies of teachers and education staff, utilize data in decision-making, and strengthen partnerships with families and the community.

From an ecosystem perspective, the principal can be positioned as the orchestrator of various educational elements. This role requires the ability to connect the school's internal and external interests to create synergy in achieving shared goals. UNESCO (2024) emphasizes

the importance of leadership that sets direction, focuses on learning, encourages collaboration, and develops people. These four aspects are essential foundations for principals in building an adaptive and sustainable educational ecosystem.

Teachers are the actors who directly translate policies, curricula, and various resources into student learning experiences. Therefore, the success of education policies is ultimately heavily influenced by teachers' capacity to design, implement, assess, and reflect on learning. Today's teachers are required not only to master pedagogical and professional competencies, but also to be able to adapt to technological developments, changing student characteristics, and future competency demands.

Continuous teacher professional development is a crucial need in the education ecosystem. Systematic review (Amemasor et al., 2025) Studies have shown that professional development can support teachers' attitudes and capacities in integrating digital technology into learning. Other research also demonstrates the importance of digital professional development and professional learning communities in strengthening school readiness and technology integration into learning practices.

Thus, teacher competency development should not stop at momentary training activities, but should become a continuous process connected to teaching practice, collaboration between teachers, reflection, and solving learning problems.

The family is an educational environment that has a significant influence on student development. Family support extends beyond providing learning needs to providing emotional support, fostering positive habits, mentoring students, strengthening motivation, and communicating about their child's development. Therefore, the

relationship between schools and families needs to be built as a two-way partnership.

Effective partnerships enable schools to gain more comprehensive information about students' needs, while families gain a better understanding of their children's development and learning processes. This position positions families not merely as recipients of information from schools, but as active partners in supporting educational success.

Communities and communities can expand school capacity by providing learning resources, authentic experiences, social support, networking, and leveraging local potential. Community environments provide a real-world context that allows students to connect learning to everyday life. Collaboration between schools and communities can also strengthen character education, social awareness, environmental literacy, citizenship, and various forms of contextual learning.

Community engagement becomes increasingly important when schools face resource constraints. Through planned partnerships, schools can access the knowledge, experience, and support available in their local communities. Therefore, the community should be viewed not as an external party providing assistance, but as part of the educational network that contributes to creating a conducive learning environment.

The relationship between family, school, and community needs to be understood as a mutually reinforcing system. Family-school-community collaboration has a positive and lasting impact on student academic achievement. The research also shows that positive feedback from teachers and students' ability to regulate their learning are important mechanisms that strengthen the influence of this collaboration.

These findings imply that partnerships between stakeholders should not stop at formal or ceremonial activities. Collaboration needs to be realized through consistent communication, student mentoring, the exchange of relevant information, and joint programs that have a tangible impact on the learning process and outcomes. Thus, the success of collaboration can be assessed by its contribution to student development, not just the number of activities implemented. (Lv et al., 2025)

Universities play a crucial role in providing research-based knowledge, generating innovation, and developing human resource capacity in the education sector. Within the education ecosystem, universities can partner with schools through collaborative research, mentoring, learning development, teacher competency enhancement, and the use of research findings to address educational issues.

Partnerships between schools and universities can also strengthen a culture of evidence-based decision-making. Problems faced by schools can be analyzed more systematically through research, while universities gain the space to ensure that scientific developments are relevant to real-world needs. This relationship fosters a two-way knowledge transfer process between educational theory, research, and practice.

The business and industrial worlds play a role in providing perspective on the changing competencies required in social life and the workplace. Technological developments, economic transformation, and the emergence of new types of jobs demonstrate that education needs to prepare students with capabilities that go beyond mastering academic content. Skills such as problem-solving, communication, creativity, collaboration, digital literacy, adaptability, and lifelong learning are increasingly important.

In the context of basic education, engagement with the business and industrial worlds can be implemented in ways that are appropriate to students' developmental stages, for example through introductions to the professional world, authentic learning projects, simple entrepreneurial activities, technological literacy, and the utilization of resources and expertise from various sectors. Thus, these partnerships help education maintain its relevance to social change and future competency needs.

Based on this description, it can be understood that the effectiveness of the education ecosystem is determined not only by the quality of each actor, but primarily by the quality of the relationships between them. The government provides direction and support systems; principals mobilize and integrate resources; teachers deliver learning; families strengthen student development; communities provide social capital and learning contexts; universities generate knowledge and innovation; and the business and industrial worlds strengthen competency relevance.

Thus, a strong educational ecosystem needs to be built through several main principles, namely shared vision, clear division of roles, two-way communication, meaningful collaboration, data-based decision-making, continuous capacity development, and evaluation of program impacts Leadership is a connecting factor that ensures that various actors do not operate in silos but rather move toward the same educational goals.

9.6 Educational Ecosystem to Improve the Quality of Education

The quality of education can be seen from the relationship between *input, proses, output, outcome*, and impact, based on the table below**:**

Component	Focus	Example of indicators
Input	Educational resources	Teachers, students, infrastructure, budget
Process	Implementation of education	Quality of learning, supervision, school culture
Output	Live results	Values, literacy, numeracy, graduation
Outcome	Impact on students	Competence, character, readiness to continue studies/work
Impact	Long-term impact	Productivity, well-being, social contribution

This approach helps schools avoid the mistake of understanding quality based solely on input. A school with complete facilities won't necessarily produce quality learning if teachers, leadership, a learning culture, and resource utilization aren't effective.

The concept of educational quality should be understood as**a** dynamic and continuous system, not only as an achievement of students' academic results. Framework *Input–Process–Output–Outcome–Impact* shows that quality is formed through the relationship between the availability of resources, the quality of educational implementation, the results obtained by students, the benefits felt in

the medium term, and the contribution of education to the lives of individuals and society in the long term.

On the aspect input The quality of education is influenced by the adequacy and relevance of available resources, such as teacher competence, student characteristics, facilities and infrastructure, funding, curriculum, and institutional support. However, input cannot be positioned as the sole measure of quality. Recent research on educational quality management in elementary schools shows that input, particularly from principals and teachers, plays a crucial role in quality management. However, studies of processes, outputs, and outcomes are also needed to ensure quality assessments are not partial.(Suwartini & Sutama, 2023)

Furthermore, process is the mechanism that transforms these resources into learning experiences and outcomes. Process quality encompasses learning planning, teacher pedagogical competence, learning strategies, assessment, academic supervision, school leadership, learning culture, and student engagement. Therefore, schools with relatively complete facilities do not necessarily produce high-quality education if these resources are not managed effectively. The OECD also emphasizes that education reform in Indonesia needs to strengthen basic competencies, 21st-century skills, formative assessment, and teacher professional development to improve the quality of learning experiences and outcomes.

At the level output Quality can be seen through relatively immediate outcomes after the educational process has taken place, such as literacy and numeracy achievement, academic grades, graduation rates, achievements, and changes in student behavior. However, outputs do not fully reflect educational success. Recent research on the IPO model shows that initial student characteristics and the learning process interact to produce educational outcomes,

while academic outputs alone are insufficient to explain student abilities in real life.(Satria et al., 2025)

Therefore, quality measurement needs to be expanded to other dimensions. Outcome, namely the changes or benefits that emerge after students receive educational services. Outcomes can include mastery of competencies, character, adaptability, readiness to continue education, readiness to enter the workforce, problem-solving skills, and the ability to apply knowledge in life. Thus, schools are not only required to produce students who achieve high grades, but also graduates who are able to use the knowledge, skills, and character they acquire to face the various demands of life.

Dimensions impact has a broader scope because it relates to the contribution of education to the lives of individuals and society. This impact can be seen through productivity, well-being, social participation, contributions to development, and the ability of individuals to become productive and responsible citizens. This perspective demonstrates that educational success does not end with students earning grades or completing their education, but must be seen in terms of the benefits of education in later life.

The findings of recent longitudinal research further strengthen this argument. *Input–Process–Output* to data *Education Report* A study in one junior high school in Indonesia showed a gradual increase in literacy, numeracy, teacher reflection, and learning quality. Interestingly, the relationship between input and process was found to be very strong, while the direct relationship between process and output was relatively weaker. These findings indicate the existence of *hour-lag*, namely that improving the quality of institutions and learning processes does not always result in immediate changes in student outcomes. In other words, quality improvement requires a consistent and ongoing process.(Kharisma et al., 2026)

This has important implications for educational quality management. Schools need to build evaluation mechanisms that do not only ask questions *"what's available?"*, but also *"how are resources used?", "what results are produced?", "what changes occur in students?",* And *"what is its contribution in the long term?"* This approach aligns with the principles of internal quality assurance, which place evaluation, improvement planning, implementation, monitoring, and re-evaluation as a continuous process. A 2024 systematic review of the implementation of SPMI also demonstrated that the quality assurance cycle can contribute to learning innovation, student achievement, school performance, stakeholder satisfaction, and compliance with education standards.(Khoirul et al., 2024)

Thus, The quality of education can be understood as the ability of educational units to manage resources effectively through a quality educational process to produce positive changes in students and provide sustainable benefits for society. Framework *Input–Process–Output–Outcome–Impact* provides a more comprehensive perspective because it shifts the orientation of quality assessment from merely the availability of facilities to effectiveness of resource utilization, process quality, achievement of results, meaningfulness of competencies, and long-term impact.

9.7 Increasing the Relevance of Education

The relevance of education shows the extent to which education is able to answer the needs of students, society, developments in science and technology, as well as the needs of life and the world of work.

Increasing relevance can be done through several strategies, including:

1) Needs-based curriculum: The curriculum must relate to both local

needs and global developments. Schools need to develop learning that allows students to connect academic concepts to real-life issues.

2) Contextual learning; Learning can be directed at real problems through projects, case studies, investigations, problem-based learning, entrepreneurial activities, environmental literacy, and community-based activities.
3) Strengthening future skills: Education needs to focus on critical thinking, creativity, communication, collaboration, problem-solving, digital literacy, data literacy, adaptability, and lifelong learning. Education needs to equip students with a combination of knowledge, skills, attitudes, and values to enable them to face future uncertainty and change.
4) Relationship with the world of work: In vocational secondary and higher education, relevance can be strengthened through internships, project-based learning with industry, guest lectures, competency certification, tracer studies, and curriculum development with graduate users.
5) Utilization of technology; Technology needs to be used not only for digitalization of administration, but also as a means of expanding access, personalizing learning, data analysis, collaboration, and developing learning resources.

From this description it can be analyzed that educational relevance is a multidimensional concept. Relevance is not only related to the content of the curriculum, but includes the suitability between curriculum, learning process, graduate competencies, community needs, technological developments, the world of work, and students' abilities to face the future Therefore, increasing relevance needs to be done systematically through a cycle of planning, implementation, evaluation, and continuous improvement.

In this context, relevant education should have the following characteristics : contextual, adaptive, competency-based, oriented to student needs, connected to society and the world of work, and supported by responsible use of technology. Relevance also needs to be demonstrated through measurable indicators, such as graduate competency attainment, critical thinking and problem-solving skills, digital literacy, involvement in authentic projects, study sustainability, job readiness, graduate user satisfaction, and graduate contributions to society. This data-driven approach is crucial to ensure that educational relevance is not merely a normative concept but becomes part of a quality improvement process that can be continuously monitored and evaluated. This aligns with developments in international education policy that increasingly emphasize the link between employability skills, lifelong learning, digital transformation, and educational quality.

Thus, The relevance of education is an important prerequisite for realizing quality, adaptive and sustainable education. Education is not enough to simply produce students who master knowledge, but must also be able to shape individuals who can use that knowledge to understand and solve life's problems, collaborate, adapt to change, utilize technology critically and ethically, and continue to develop their competencies throughout life. Strengthening the needs-based curriculum, contextual learning, *future skills* Partnerships with the workplace, the use of technology, and the professionalism of educators need to be implemented in an integrated manner. With this approach, educational relevance can be a strategic tool to ensure that graduates possess competencies that meet societal needs and have the capacity to face future changes.

9.8 Scalable Education Ecosystem

The education ecosystem is a system that brings together students, teachers, education personnel, schools, families, communities, government, technology, and various stakeholders to achieve educational goals. Each element has interrelated functions, so changes in one component can affect others. Therefore, improving the quality of education requires collaboration and coordination across components, not just improvements to the classroom learning process.

In its development, the education ecosystem needs to be managed effectively. Measurable, that is, each educational goal and program has clear indicators, targets, data sources, and evaluation mechanisms. Measurement is used not only to determine student learning outcomes but also to assess the quality of learning, teacher competence, school leadership, resource utilization, parental involvement, and the success of educational programs. A data-driven approach enables schools to make decisions based on real-world conditions and available evidence.(Fibrianti, 2025)

A measurable education ecosystem includes at least five main components, including:(Nurbani, 2025)

1) **Learners**; with indicators in the form of literacy, numeracy, character, social skills, attendance, involvement, and academic development.
2) **Educators and education personnel**; which can be measured through qualifications, competencies, professional development, quality of learning, ability to utilize technology, and performance.
3) **Learning process**; which includes the quality of planning, implementation of learning, assessment, use of technology, differentiated learning, and student involvement.
4) **Leadership and governance**, encompassing data-driven

planning, resource management, supervision, collaboration, monitoring, evaluation, and follow-up. Data-driven leadership is crucial because information obtained from various sources can be used to determine priorities for school improvement.

5) **Environment and Education Partnership**; which includes the availability of infrastructure, access to technology, involvement of families, communities, government, and other partners.

Measuring the educational ecosystem should not only focus on the end result. Possible models include:

1) ***Input*** **:** teachers, students, budget, facilities, technology, and policies
2) ***Process*** **:** learning, leadership, management, collaboration, and supervision
3) ***Output*** **:** program implementation, assessment results, attendance, and learning outcomes
4) ***Outcome*** **:** Improving students' competency, character, skills and readiness
5) ***Impact*** **:** the quality of education and its contribution to society.

This approach helps schools differentiate between implemented program And programs that truly make a difference. Thus, educational success is not only measured by the number of activities, but also by the evidence of the changes produced.

A measurable education ecosystem needs to apply several principles, namely:

1) Student-oriented
2) Have clear goals and indicators
3) Data and evidence based
4) Transparent and accountable
5) Collaborative and inclusive
6) Utilizing technology appropriately and ethically

7) Results and impact oriented
8) Conduct continuous evaluation and improvement.

The use of data in education requires teachers and school leaders to be able to read, analyze, and use this information to determine action. This ensures that data is not merely an administrative document but becomes the basis for planning and improving school quality.(H. D. L. , T. A. , & W. M. F. Linggasari, 2026)

A measurable education ecosystem is an approach that integrates various elements of education through clear objectives, measurable indicators, valid data, evidence-based decision-making, and continuous evaluation. Measurement is not intended to increase administration, but to ensure that every educational resource and program provides real benefits to students.

9.9 Systematic Education Ecosystem

The educational ecosystem is a unity of various interconnected elements that support the achievement of educational goals. These elements include students, teachers, principals, education personnel, families, communities, curriculum, technology, infrastructure, and educational policies. From this perspective, the quality of education cannot be determined by a single component, but is influenced by the quality of relationships and coordination between elements within the education system. A recent bibliometric study shows that the approach *systems thinking* increasingly used in educational research because it helps understand the interrelationships between components and the complexity of educational problems.(Bozkurt & Bozkurt, 2024)

A systematic education ecosystem requires planning, implementation, monitoring, evaluation, and follow-up

interconnected. Every program needs to have clear goals and indicators so that results can be measured and used as a basis for improvement. In the context of leadership, systems thinking skills help educational leaders see the relationships between various organizational elements, rather than simply solving problems in isolation.(Niewoehner-Green et al., 2025)

In addition, the education ecosystem needs to be built through collaboration teachers, principals, students, parents, and other stakeholders need to have complementary roles. A leadership approach based on systems thinking can help educational institutions face change and build organizational capacity more adaptively.(Taylor, 2024)

The use of technology is also part of the modern education ecosystem. However, technology should be used based on learning needs and educational objectives, not simply to keep up with technological developments. Technology-assisted learning with an inquiry-based approach can support the development of students' systems thinking skills.(Ormanci & Cepni, 2026)

Thus, a systematic education ecosystem is educational management that connects various components in a planned manner to achieve common goals. Its success is determined by the integration of leadership, human resources, curriculum, learning, technology, the educational environment, and evaluation mechanisms. Therefore, systems thinking It is an important approach so that educational development is not carried out partially, but through an understanding of the relationship between components and the process of continuous improvement.

9.10 Sustainable Education Ecosystem

Sustainable education ecosystem is an educational system that integrates aspects of learning, human resource development, the environment, technology, and community involvement. Sustainable education emphasizes not only academic success but also building students' abilities to understand social and environmental issues and take responsible action.(Known, 2025)emphasizes that sustainability education needs to be understood more broadly because technological developments have changed the relationship between education, sustainability, and societal needs.

Implementing sustainable education requires learning strategies that enable students to connect knowledge to real-world problems. The results of this study (Zahra Faizah et al., 2026) show that project-based learning is one of the most widely used strategies in implementing Education for Sustainable Development (ESD), accompanied by various collaborative and activity-based strategies.

At the elementary school level, sustainability education can be integrated through contextual learning, particularly by connecting subject matter to environmental issues surrounding students.(Putri et al., 2026)shows that the application of ESD in elementary school science learning is an important approach to fostering sustainability awareness from an early age.

Sustainability integration also needs to be implemented systematically through the curriculum. Approaches such as problem-based learning, project-based learning, dan service learning can be used to integrate sustainability principles into the curriculum and provide more contextual learning experiences.

Thus, a sustainable education ecosystem can be developed through integration between school leadership, teacher competence, curriculum, problem-based learning, use of technology, school

environment, and partnerships with the community this approach allows schools not only to teach sustainability concepts but also to build habits and a culture that support sustainability in everyday life.

9.11 Strategy for Implementing a Quality-Based Education Ecosystem

A quality-based education ecosystem is a system that integrates leadership, human resources, learning, data, technology, governance, and stakeholder collaboration to produce planned and sustainable improvements in the quality of education. Quality is determined not only by learning outcomes, but also by the quality of the learning process, leadership, educational services, learning environment, and the institution's ability to continuously improve.

Recent research shows that data-driven leadership can be an important instrument in quality improvement because it helps schools link evaluation results with planning and corrective actions. Studies on madrasas in Indonesia, for example, show that the use of Education Report Card can help leaders identify changes in quality outcomes and determine areas that need intervention.(Rovana & Aslamiah, 2026)

As forStrategy for Implementing a Quality-Based Education Ecosystem, including:

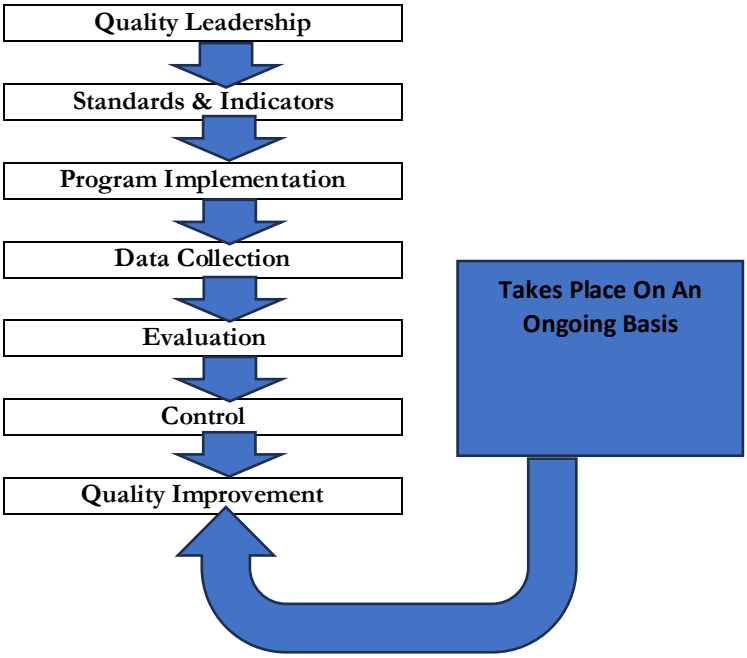
1) Strengthening quality-based leadership; Educational unit leaders need to act as guides for learning and organizational change. Strategies include setting quality targets, evidence-based decision-making, instructional supervision, and teacher empowerment. Recent research on instructional leadership shows a relationship between the principal's instructional leadership and the quality of teacher learning. (Ance Lumbantobing & Manurung, 2026)
2) Data-driven management: Data needs to be used to identify problems, set priorities, develop programs, and measure results.

The cycle can be formulated as follows: Data → Analysis → Planning → Implementation → Evaluation → Improvement. A 2026 study of elementary schools in Indonesia showed that principal leadership in data-driven planning plays a role in supporting improvements in the quality of education. (H. D. Linggasari et al., 2026)

3) Strengthening the quality assurance system; Quality assurance needs to be part of daily management, not just administrative fulfillment. Its implementation can use the cycle: Determination → Implementation → Evaluation → Control → Improvement (PPEPP). Research (Asamoah et al., 2025) shows tha *quality assurance* has a strategic role in maintaining educational standards and directing institutions towards achieving educational development goals.
4) Developing educator professionalism; Improving quality requires teachers to continuously develop their competencies through training, learning communities, coaching, lesson study, research, and reflection. Professional development should be directed at real-world learning problems so that the results can be seen in classroom practice.
5) Digital transformation and the use of AI; Digital technology and AI can be used to support lesson planning, personalized learning, assessment, data analysis, and administrative efficiency. Research (Nurdiyanto, 2025) shows that AI integration can impact teaching practices and student engagement in digitalized learning environments. However, the use of AI must be accompanied by AI literacy, ethics, data protection, academic integrity, and human oversight Research on K–12 teacher readiness also shows that pedagogical and professional factors are crucial for the success of AI integration in learning. (Filiz et al., 2025)

6) Strengthening collaboration; A quality ecosystem needs to involve: Schools – Teachers – Students – Parents – Community – Universities – Government – Business/Industry. Collaboration can be realized through learning communities, school partnerships, collaborative research, program development, and parental involvement.
7) Continuous monitoring and improvement; Evaluation must result in concrete actions. Each indicator is compared between targets and achievements, then analyze the causes of the gaps. These results serve as the basis for taking corrective action and improving standards.

A simple model of a quality-based education ecosystem can be formulated as follows:



The model shows that the quality of education is repair cycle, not an activity that stops after the program is finished.

The indicators for successful implementation can be measured through:

1) Improving student learning outcomes
2) Improving teachers' professional competence
3) Increasing the achievement of quality indicators
4) Increasing use of data in decision-making
5) Improving the quality of education services
6) Increased stakeholder engagement;
7) Increased percentage of evaluation results that are followed up.

The strategy for implementing a quality-based education ecosystem requires strong leadership, data-driven management, quality assurance systems, teacher professional development, digital transformation, collaboration, and continuous evaluation and improvement. Thus, quality is not positioned as merely compliance with standards, but as organizational culture that encourages measurable and sustainable improvement in the quality of learning and educational outcomes.

9.12 Educational Ecosystem Model for Quality Improvement

The educational ecosystem model views education as a system comprised of various interconnected elements, such as the government, educational institutions, principals, teachers, students, families, communities, technology, and the workplace. The quality of education is not determined by a single component, but by the quality of the interactions and collaborations between these components.

The ecosystem approach is becoming increasingly important as education faces increasingly rapid social, technological, and competency-based changes.(Sophie, 2025)emphasized that technological developments, artificial intelligence, economic change, and social inequality need to be responded to through an adaptive and future-oriented education system.

The educational ecosystem model for improving quality can be built through six main components, including:

1) Policy and leadership; Determining the direction, standards, targets, and culture of educational quality
2) Educators and education personnel; Becoming the main drivers of the learning process through professional, pedagogical, digital competencies, and adaptability.
3) Students; Placed at the center of the ecosystem with attention to learning outcomes, character, creativity, critical thinking skills, and well-being.
4) Curriculum and learning; Developed in a relevant, contextual, flexible and competency-oriented manner
5) Family, community, and partners; Serve as a source of support, character building, learning resources, and development of educational networks.
6) Technology and data systems; Used for learning, administration, data analysis, monitoring, and evidence-based decision-making. (OECD, 2026) emphasizes that the use of AI in education needs to be directed at improving the quality of learning while also addressing ethical, equity, and governance aspects.

The model can be applied through a cycle: Condition mapping → Target setting → Implementation → Monitoring → Evaluation → Control → Innovation → Continuous improvement.

In the context of quality assurance, these mechanisms can be aligned with the quality assurance cycle. PPEPP (Determination, Implementation, Evaluation, Control, and Improvement)

Data from assessments, observations, surveys, and evaluations are used to identify gaps between actual conditions and established standards. The analysis results then form the basis for developing corrective actions.

Implementation of the model can be done through several strategies:

1) Build quality culture to all citizens of Education
2) Strengthening learning leadership
3) Improving teacher competence and professional development
4) Implementing data-driven decision making
5) Strengthening school collaboration with families and communities
6) Integrating technology pedagogically and ethically
7) Develop a measurable monitoring and evaluation system
8) Make continuous improvements.

Study (Wahyudin, 2025)shows that the development of a digital-based education quality ecosystem requires integration between leadership, teacher competence, infrastructure, policies, and school culture. Study (Hanafi, 2025)also emphasized that synergy between schools and communities can strengthen a quality education ecosystem.

The success of the model can be measured based on the table below:

Dimensions	Indicator
Input	Teacher competence, facilities, technology, resources
Process	Quality of learning, leadership, collaboration
Output	Learning outcomes, literacy, numeracy, character
Outcome	Competence, independence, future readiness
Impact	Improving the quality and relevance of education

The educational ecosystem model is a systemic approach that places quality improvement as a shared responsibility. Quality is built through integration between policy, leadership, teachers, students, curriculum, technology, family, community, and quality assurance system The success of the model is largely determined by collaboration, data utilization, innovation, and continuous improvement.

Thus, the education ecosystem model can be formulated simply as: Ecosystem Collaboration → Quality Learning → Data and Evaluation → Continuous Improvement → Improving the Quality of Education.

9.13 Principles of Educational Ecosystem Development

The educational ecosystem is a system that brings together various educational elements—students, teachers, schools, families, communities, government, businesses, universities, and technology—that interact to support the achievement of educational goals. Education can no longer be viewed solely as the responsibility of

schools, as student development is influenced by the social, family, cultural, technological, and societal environments.(Błasiak, 2024)

Recent research shows that school, family, and community relationships built through communication, trust, participation, and shared resource use can strengthen the quality of education.(Zhang, 2024)

The following are the principles of developing an educational ecosystem:(Cheng, 2024)

1) Student-Centered; Ecosystem development must prioritize the needs, potential, safety, well-being, and development of students. Every educational policy and program must have a tangible impact on the quality of students' learning experiences.
2) Collaborative and Participatory: The education ecosystem is developed through collaboration between schools, families, communities, government, universities, and other partners. Collaboration needs to be built through open communication, role allocation, shared goals, and trust. Recent studies have shown that ongoing communication and multi-stakeholder engagement are crucial factors in building effective educational collaboration.
3) Inclusive and Equitable: Every student must have fair and equitable learning opportunities without discrimination. The education ecosystem must take into account differences in abilities, social conditions, special needs, access to technology, and student background.
4) Data- and Evidence-Based: Educational development needs to be based on valid data. Data on learning outcomes, attendance, student engagement, teacher conditions, infrastructure, and evaluation results can be used as a basis for determining improvement priorities.

5) Adaptive to Change: The education ecosystem must be able to respond to technological developments, social change, community needs, and future competency demands. Adaptation is achieved through innovation that consistently considers the needs of students and the context of the educational unit.
6) Ethical Technology Integration: Technology and artificial intelligence can expand access to learning and support personalization and learning analytics. However, their use must remain within human pedagogical control, with due regard for privacy, data security, fairness, information accuracy, and academic integrity. Recent research demonstrates the importance of collaborative relationships between teachers and AI, not its replacement.
7) Continuous Professional Development: A quality ecosystem requires teachers and education personnel who continuously develop their competencies. This development can be achieved through learning communities, training, mentoring, coaching, reflection, research, and sharing of best practices.
8) Oriented to Quality and Continuous Improvement; Ecosystem development must proceed systematically through a cycle of planning, implementation, evaluation, control, and improvement. Thus, each program does not stop at implementation but results in evidence-based follow-up.
9) Sustainability; Educational programs must be sustainable in terms of human resources, funding, policies, technology, institutions, and the environment. Sustainability ensures that innovation becomes part of the school culture, not just a temporary activity.

Developing an educational ecosystem can be done through five simple steps, including:(Ugobueze, 2024)

1) **Mapping:** identify needs, potential, problems, and resources
2) **Planning:** determine priorities, targets, programs, indicators, and division of roles
3) **Collaboration:** building partnerships with families, communities, government, universities, and other parties
4) **Implementation:** run programs based on needs and data
5) **Evaluation and improvement:** measuring results, identifying gaps, and following up. (Syam, 2024)

Developing an educational ecosystem is an approach that places education as a shared responsibility. Its main principles include: student-centered, collaborative, inclusive, data-driven, adaptive, ethical in the use of technology, oriented towards professional development, quality, and sustainable.(Cohn, 2025)

With an integrated ecosystem, schools can build an educational environment that is more responsive to student needs and societal changes. Collaboration between schools, families, and communities is a key foundation, as quality education requires the ongoing involvement of various actors and resources.(Memon, 2025)

9.14 Challenges in Developing an Educational Ecosystem

The education ecosystem is a unit consisting of students, educators, educational institutions, families, communities, government, businesses, universities, technology, and the social and physical environment, all interacting to achieve educational goals. The development of the education ecosystem is oriented not only toward increasing access, but also toward the quality of learning, equity, relevance, inclusivity, and sustainability.

In the context of rapid social and technological change, education systems are required to be adaptable. The use of artificial

intelligence (AI), for example, has transformed the competency requirements of teachers and students. UNESCO emphasizes the importance of human-centered AI competencies, ethics, technology application, pedagogy, and continuous professional development.(Miao, 2024)

Here Challenges in Developing an Educational Ecosystem. Includes:(UNESCO, 2023)

1) Inequality in Access and Quality: The main challenge is the persistent gap in access to educational services and resources. Differences in geographic, socioeconomic, facility, and teacher availability can impact the quality of students' learning experiences. This issue is reflected in the results of the 2022 PISA (Paris-Paris International Student Assessment) test. Indonesian students' achievement remains below the OECD average in mathematics, reading, and science. Only 18% of Indonesian students achieved at least Level 2 in mathematics, 25% in reading, and 34% in science. (OECD, 2023)
2) Teacher Competence and Professionalism: Changing student characteristics and technological developments require teachers to have continuously updated competencies. Teachers serve not only as transmitters of material but also as facilitators, guides, innovators, and managers of learning experiences. Challenges include developing pedagogical, digital, data literacy, assessment competencies, and the ability to use AI safely and ethically. UNESCO identifies 15 AI competencies for teachers across five dimensions: *human-centred mindset*, AI ethics, AI fundamentals and applications, AI pedagogy, and AI for professional development.
3) Digital Transformation and AI: Digitalization opens up opportunities to expand learning resources and improve the effectiveness of education management. However, risks include

gaps in technology access, low digital literacy, data security, technology dependency, and unethical use of AI. Therefore, technology needs to be positioned as a tool to enhance the educational process, not replace human roles. Students also need to be equipped with the ability to understand, use, and evaluate AI critically and responsibly.

4) Curriculum Relevance: Changes in the world of work and technological developments require an adaptive curriculum. Education needs to develop not only academic knowledge, but also critical thinking, creativity, communication, collaboration, problem-solving, digital literacy, AI literacy, and character. A relevant curriculum should provide opportunities for students to connect knowledge to real-world problems so that learning has meaning and long-term benefits.
5) Weak Collaboration Between Actors: Education is a shared responsibility. Schools cannot solve various educational problems alone. Collaboration is needed between schools, families, communities, government, universities, businesses, and social organizations. Effective collaboration allows for the exchange of resources, knowledge, data, innovation, and support for students.
6) Data Governance and Utilization: The next challenge is ensuring that education data is truly used to improve quality. Data should not only serve as reporting documents, but also serve as the basis for identifying problems, setting priorities, designing interventions, and evaluating results. This approach can be formulated through a cycle: Data → Analysis → Planning → Implementation → Monitoring → Evaluation → Improvement.
7) Inclusivity and Sustainability: The education ecosystem must provide equitable learning opportunities for all students, including those with social, economic, and geographic barriers, or specific

learning needs. Furthermore, education needs to address environmental issues and climate change by developing schools that are healthy, safe, environmentally friendly, and oriented toward sustainable development.

The development of the educational ecosystem can be carried out through several main strategies, including:(UNESCO, 2024)

1) **Strengthening educational leadership** adaptive, collaborative, and data-driven
2) **Improving teacher competence** through continuous professional development
3) **Integrating technology and AI** ethically, safely, and oriented towards learning needs
4) **Developing a relevant curriculum** with the needs of students and changes in the world
5) **Building multi-party collaboration** between schools, families, government, society, universities, and the business world
6) **Strengthening data-driven decision making** to increase program effectiveness
7) **Implementing a sustainable quality culture** through monitoring, evaluation, control, and follow-up
8) **Promoting inclusive and sustainable education** so that each student gets the opportunity to develop optimally.

The development of the education ecosystem faces complex challenges, ranging from disparities in access and quality, teacher competency, digital transformation and AI, curriculum relevance, weak collaboration, data-driven governance, to demands for inclusivity and sustainability. These challenges demonstrate that improving education quality cannot be achieved through a single program or institution.

Therefore, the education ecosystem needs to be developed in a comprehensive manner. Systemic, collaborative, data-driven, adaptive, inclusive, and sustainable Schools need to become learning organizations capable of adapting to change, innovating, evaluating programs, and continuously improving. With this approach, education is expected to not only produce academic achievements but also shape students who are adaptable, critical thinkers, collaborative, ethical, and ready to face future changes.

9.15 Indicators of Success of the Education Ecosystem

The success of the education ecosystem demonstrates the ability of all components of education—students, teachers, principals, families, communities, government, infrastructure, technology, and the learning environment—to work in an integrated manner to achieve quality education. Therefore, educational success is measured not only by academic grades but also by the quality of the process, equity, learning environment, governance, and impact of education.

Systematic review(Barros, 2025)shows that important elements in the education ecosystem include governance, infrastructure, inclusion, welfare, learning innovation, and teacher competency development, while collaboration with the government, society, and the world of work is an external factor that strengthens the ecosystem.

The success of the education ecosystem can be measured through the following indicators:(Bernhard, 2024)

1) Access and equity; Demonstrated through educational participation, attendance, continuation of studies, and fair learning opportunities for all students.
2) Learning quality; Includes student-centered learning, the use of assessment, differentiation, student engagement, and the quality

of teacher-student interactions. The school's attention to teaching quality is related to the development of student learning outcomes.

3) Student outcomes; Includes literacy, numeracy, critical thinking, creativity, collaboration, character, independence, and adaptability
4) Teacher professionalism; Measured through pedagogical and professional competence, self-development, collaboration, learning reflection, and the ability to utilize technology.
5) Leadership and Governance; Includes data-driven planning, transparency, accountability, resource management, monitoring, evaluation, and follow-up. A 2024 study found that quality management practices can contribute to student performance through school culture.
6) A safe and inclusive learning environment; characterized by physical and psychological safety, violence prevention, inclusivity, well-being, and positive relationships among school members.
7) Family and community partnerships; encompassing parental involvement and collaboration with the community, universities, government, business, and industry. Recent studies confirm that school-community collaboration is a crucial part of strengthening the quality education ecosystem.
8) Digital transformation; encompasses technology access, digital literacy, teacher digital competency, utilization of learning platforms, data security, and pedagogical use of technology. The study of digital ecosystems also positions teachers, students, school management, connectivity, devices, and digital learning resources as interrelated components.
9) Sustainability and innovation; Demonstrated through the school's ability to innovate, adapt to change, utilize research

findings, and maintain program sustainability.

The following is a brief matrix of indicators, namely:

Dimensions	Success Indicators
Access	Participation, presence, equity
Learning	Quality of process and student engagement
Learning outcomes	Literacy, numeracy, character, competence
Teacher	Competence and professional development
Leadership	Data-driven governance and planning
Environment	Safe, healthy, inclusive
Family	Parental involvement
Public	Partnership and collaboration
Digital	Literacy and utilization of technology
Innovation	Adaptation and continuous improvement

Based on the table matrix above, success of the education ecosystem It is the result of a mutually supportive interconnection of various dimensions, ranging from equitable access to education, learning quality, learning outcomes, teacher competency, to data-driven leadership and governance. This success is also reinforced by the creation of a safe and inclusive learning environment, family and community involvement, the use of digital technology, and the ability of educational units to adapt and continuously improve. Thus, indicators of educational success are measured not only by academic outcomes but also by quality of process, equality, character, collaboration, innovation, and sustainability of improving the quality of education.

These indicators should be measured through a cycle. Data → analysis → intervention → monitoring → evaluation → follow-up. In the context of SPMI, this mechanism can be integrated with the cycle

PPEPP, so that indicators not only function as assessment tools, but also as a basis for continuous quality improvement.

Measurement also needs to consider the social and economic context because school quality is not entirely determined by internal school factors.(Burrell, 2024)shows that factors outside of school can explain a significant part of the variation in education quality.

The indicators of success of the education ecosystem are measures that describe integration between the quality of input, process, results, and impact of education. An ecosystem can be considered successful if it is able to provide education that equitable, quality, inclusive, safe, adaptive, data-based, and sustainable.

Thus, educational success should not be reduced to academic achievement alone, but understood as the result of the interaction of various components that together improve the quality of the learning experience and development of students.

9.16 Conclusion

The education ecosystem is a unity formed by the interaction of various educational elements, both within and outside the educational unit. Students are the primary focus, while teachers, principals, families, communities, government, universities, the workplace, technology, and the social environment play complementary roles. Therefore, improving the quality of education cannot rely solely on classroom learning but requires integrated management of all components within a focused system.

Quality education is characterized by student-centered learning, a safe and inclusive environment, competent educators, effective leadership, strong partnerships, and decision-making supported by data and evidence. Quality also needs to be understood holistically, encompassing the availability of resources, the quality of the process,

learning outcomes, the development of student competencies and character, and the benefits of education in community life. With this perspective, educational success is not solely determined by academic achievement, but also by the system's ability to generate meaningful and sustainable change.

The relevance of education can be strengthened through a curriculum that is responsive to student needs and societal developments, learning that relates to real life, strengthening future skills, utilizing technology, and fostering constructive relationships with the workplace and the community. Digital developments and artificial intelligence also require educational institutions to enhance the capacity of teachers and students to use technology critically, creatively, safely, and responsibly.

In order for quality improvement to take place consistently, the education ecosystem needs to be managed effectively. Measurable, systematic, and sustainable every program needs to have clear objectives, indicators, targets, data sources, monitoring mechanisms, and follow-up. Assessment data, learning evaluations, educator conditions, student engagement, partnerships, and other information should be used as a basis for determining improvement priorities. This process can be integrated with the learning cycle. PPEPP (Determination, Implementation, Evaluation, Control, and Improvement) so that the evaluation results actually result in corrective action.

Ultimately, the strength of an education ecosystem lies not only in the quality of its individual components, but also in their ability to work synergistically. Collaboration, leadership, a culture of quality, data utilization, innovation, professional development, and continuous evaluation are essential foundations for building an education system that is responsive to change. With this management,

the education ecosystem is expected to be able to deliver educational services that quality, relevant, inclusive, adaptive, equitable and sustainable, while forming students who are competent, have character, are able to adapt, and are ready to face future challenges.

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