

THE ESSENCE OF LEADER MANAGERIAL COMPETENCIES IN EDUCATIONAL TRANSFORMATION: ANALYSIS OF THE 2024 EDUCATION REPORT

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ABSTRACT

Abstract: *Data is an important element in policy making, especially in educational management in the transformation era. In addition to data, managerial competencies of educational leaders who are adaptive to change are also needed. Both will strengthen the running of educational organizations. This study aims to analyze the nature of managerial competencies of leaders in educational transformation while analyzing education report as a basis for educational policy making. This study uses a descriptive method with a constructivist approach that relies on secondary data, namely regional education report and literature on leadership and managerial competencies. The analysis process is carried out by identifying educational problems, then mapping them with an Ishikawa diagram. Alternative solutions to problems related to programs and policies that touch on the technical realm are not discussed in depth, because the analysis focuses more on the concept of managerial competencies of educational leaders. The results of the study are in the form of a concept of managerial competencies of leaders in educational transformation that includes 3 domains of knowledge, skills, and managerial attitudes, consisting of (1) data literacy and data-based decision making, (2) reflective and contextual leadership, (3) human resource development and organizational culture, (4) technology and innovation management, (5) interpersonal skills and organizational ethics, (6) focus on the functions, duties and attitudes of managers. This research provides practical implications, namely as a role model for increasing the capacity of regional education leaders, and theoretical implications, namely as a basis for further research in the field.*

A. INTRODUCTION

The managerial competence of educational leaders is a prominent topic in studies of educational transformation. A leader's managerial competence in managing change is an integral part of efforts to ensure education remains relevant and in line with current developments. Educational transformation has given rise to a new paradigm in the management of educational organizations. This new paradigm integrates technology and digitalization in learning, as well as changes in the mentality and behavior of involved stakeholders (Ma & Ismail, 2025). Educational administrators and teachers must master the skills they develop and then collaborate to actualize these competencies in

creating superior educational outcomes with 21st-century skills (González-pérez & Ramírez-montoya, 2022).

Research on educational leadership demonstrates that leaders make significant contributions to improving and enhancing the effectiveness of educational organizations (Chen et al., 2022; Dowansiba & Hermanto, 2022; Handono et al., 2022; Maqbool et al., 2023). A leader's capability is demonstrated by their ability to drive change. Antonopoulou et al. (2021) suggest that transformational leadership is one form of effective leadership, where this leadership model can optimally innovate in digitalization. This leadership model possesses

digital competencies (knowledge, attitudes, and skills) as well as strong leadership skills such as the ability to formulate a clear vision and mission, as well as strategies to achieve them (Zeike et al., 2019).

Several previous studies have demonstrated that the managerial competence of educational leaders has a significant influence on the quality of educational services. Research by Cempaka et al. (2023) explains that the managerial competence of school principals as educational leaders has a significant influence on teacher performance of 61.60 percent. Research by D. P. Sari et al. (2024) indicates that the principal's managerial competence variable has a 53.4 percent influence on improving the quality of education in elementary schools in Randublatung District, Blora District. Research by Juanda & Suharto (2021) shows a significant influence of managerial competence on the quality of learning services, amounting to 71.4 percent. Thus, the managerial competence of educational leaders significantly contributes to improving educational quality, which ultimately leads to student achievement.

However, research by Sabila et al. (2023) states that although school principals have played a role in carrying out their duties and responsibilities effectively, their research unfortunately failed to specifically analyze the managerial concepts implemented in education. Another study by Mubarrok & Bisri (2024) analyzed the managerial competence of Madrasah Principals, which also described the implementation of managerial tasks, from planning, organizing, actualizing, and controlling education in madrasas, which tended to be classical. Another fact, cited by Brauckmann et al. (2023), is that in reality, educational leaders still have little knowledge about the combination of autonomy-based governance with accountability, which presents a challenge in educational leadership. Supported by research by S (2022), who conducted research in 20 schools across Jambi City, educational planning, which is part of school management, is still carried out solely as an administrative and accountability requirement. The availability of data has not been utilized in decision-making to improve the

quality of educational services. This is due to inadequate human resource competency, stakeholder support, and an organizational culture that is ready for change. However, research by Muthalib et al. (2025) shows that data-driven decision-making as part of transformative management has a positive impact on improving the quality of student learning outcomes and the effectiveness of school management.

Furthermore, the managerial competence of educational leaders is crucial in the governance of educational organizations, as managerial leadership is considered capable of driving change (O'Connor, 2020). Managerial competence of educational leaders, which is the optimal actualization of knowledge, skills, and behaviors in resource management, can create an effective educational organization (Wahyuni et al., 2021). Managerial competence of educational leaders should be able to synergize with transformation, utilize digital literacy in school management, and involve data-driven decision-making. Meanwhile, the education report is a breakthrough developed by the central government to evaluate education in Indonesia. The education report contains data on educators.

The results of national assessments are integrated with the results of the national education survey. Education report indicators are compiled based on input, process, and output at educational units (BSKAP, 2023). The education report assessment framework consists of five dimensions that reflect eight national education standards (Kemendikbudristek, 2023a). The data presented in the education report serves as a basis for stakeholders in formulating education policies. Evaluations of educational units can be conducted based on the data presented in the education report. Educational leaders can use the evaluation results as a reference in future educational planning. Schildkamp (2019) in his research emphasized the importance of data as a basis for decision-making and improving education quality. Data will strengthen the identification of educational problems that require alternative solutions.

In line with this research, research that combines education report analysis to unravel the root causes of regional education problems and identify the concept of managerial competency of educational leaders that can be applied to improving the quality of education services has never been conducted. This research is necessary because it can serve as a basis for data-driven policymaking, making educational organizations more adaptive to

transformation and better responding to community needs, thereby strengthening the role of leaders in the context of educational decentralization. Therefore, the purpose of this study is to develop a conceptual model of educational leaders' managerial competencies in efforts to improve educational quality by utilizing educational report analysis to map educational problems.

B. RESEARCH METHODS

This research was conducted using a descriptive method (Sugiyono, 2019), with the goal of gaining a deeper understanding of the data or facts obtained from literature analysis and educational report analysis. Interpretive flexibility is allowed, given that the data analysis will be tailored to the context in the field. Therefore, the research paradigm will lean more toward a constructivist approach (Morissan, 2019).

The analysis focused on interpreting indicators related to the managerial competencies of educational leaders presented in the educational report. The research data are not the result of direct fieldwork by the researcher, but rather data presented in the 2024 Aceh Tamiang Regency educational report. Therefore, this data analysis falls into the category of secondary data analysis.

This research focuses on several issues that are the focus of the research discussion. The focus of the study to be explored in this study is presented in the following research questions:

- Q₁ : How to maximize educational report data to improve the quality of educational services?
- Q₂ : What is the essence of leadership and managerial competency that can be actualized to improve the quality of education in synergy with the use of educational report?

The following is a research design for the Essentials of Leader Managerial Competencies in Educational Transformation: Analysis of the 2024 Educational Report Card to provide a brief overview of the research that will be carried out.

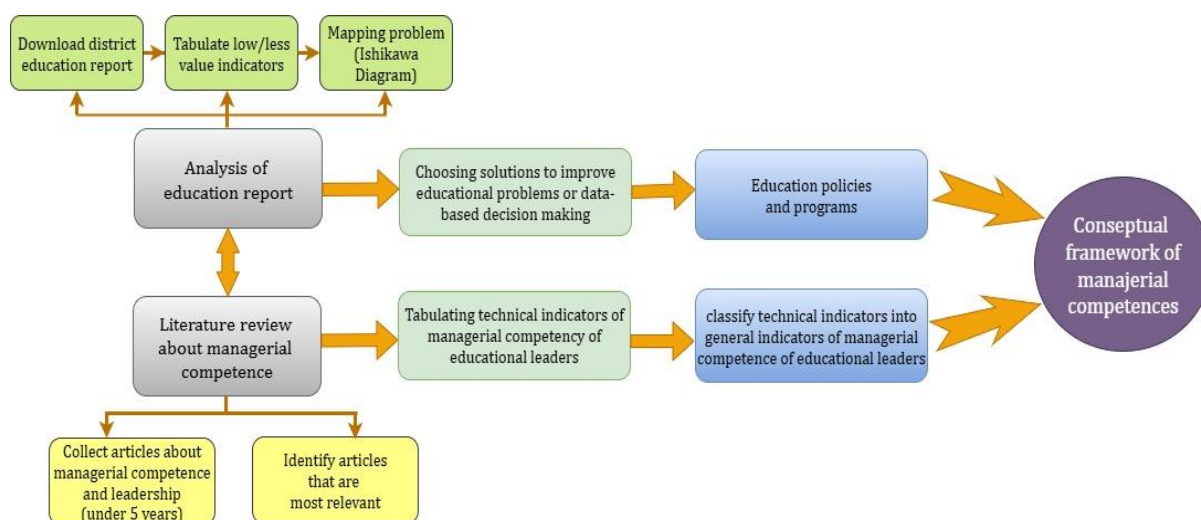


Figure 1. Research design developed by researchers

To avoid overly broadening the scope of this research, the research will be limited to a single problem: district/city education report data at the junior high school (SMP) level. Given that the district/city education report formats for junior high and elementary schools are similar, the analysis technique can be generalized to both levels of education. After downloading the 2024 district/city education report, several indicators and sub-indicators with low, or below-middle, achievement scores were selected. The analysis was simplified using a fishbone diagram, also known as an Ishikawa diagram (Budiarti & Pambudi, 2022).

The Ishikawa diagram is a method used to systematically identify problems using the principle of cause and effect. The analysis is conducted by breaking down a problem, usually located at the head of the fish, and the factors influencing the condition, located at the fishbone (Mangundjaya, 2025). Within the fishbone, each causal factor is categorized into human, machine, method, material, and environmental factors (4M + 1E). Within each fishbone, there are smaller bones that describe more detailed causes.

By categorizing the indicators or sub-indicators that contribute to problems within the 4M+1E (Man, Machine, Method, Material, Environment) model, analysts can easily identify problems according to their categorization of human resources, equipment, methods, materials, or the educational organization's environment. Causal factors within the human category include, for example, the quality of human resources, including abilities and skills; machine factors, related to equipment and technology; method factors, related to processes and procedures used; material factors, related to the quality of materials; and environmental factors, related to the work climate and the carrying capacity of the surrounding environment (Editorial Team, 2023).

The next stage is collecting data on managerial competencies in the transformation era. Sources are selected based on the most recent publications, specifically the last five years. The data will be presented in tables or diagrams. From the collected data on managerial competencies in the transformation era,

appropriate managerial competencies will be selected to help resolve the problems presented in the fishbone diagram. These solutions will serve as recommendations that can be used as guidelines for implementing future educational programs. Technically, the analysis of problems related to the managerial competence of educational leaders is based on educational report indicators mapped in an Ishikawa diagram. The mapping of problems begins with a broad outline and is then clarified with more detailed causal factors. These problems require solutions. A literature review of relevant articles from the past five years will generate recommendations for solving these problems. Thus, the analysis and synthesis formulated into a conceptual framework that reflects the essence of the managerial competence of educational leaders in educational transformation.

C. RESULT AND DISCUSSION

1. Education Report to Improve the Quality of Education Services

The Regional Education Report 2.0, released by the Ministry of Education, Culture, Research, and Technology in mid-2023, is a platform that will significantly assist regional governments in monitoring and improving minimum education service standards in their regions (KemendikbudRI, 2023). The education profile presented in the education report demonstrates that each indicator leads to an educational assessment standard. Regional governments can assess the overall quality of education in their regions, which also determines the quality of minimum education services in the region.

The education profile data presented in the education report can be used as a basis for planning regional education development. Analysis of low indicators is essential, as this identifies issues that must be addressed immediately by regional governments. The 2024 education report serves as a crucial data source for planning education programs to achieve regional education goals. This data must be utilized meaningfully for accountability, school development, and improving the quality of education services (Schildkamp, 2019). Regional governments, as the authorities responsible for

managing regional-level systems, play a crucial role in establishing benchmarks in the form of regional policies to ensure that schools under their jurisdiction meet minimum standards in providing educational services to the public.

Utilization of regional education report by local governments must utilize an appropriate analytical framework and action plan to achieve better results, specifically in student learning outcomes, learning quality, and educational services. This does not mean that educational improvement relies solely on available data. Another equally important factor influencing the effectiveness of data in leadership decision-making is data literacy. Without data-literate employees, the implementation of big data analytics technology will fail to improve local government performance. This is in line with a report from Muthalib et al. (2025) that schools that utilize education report as a basis for planning tend to achieve better learning quality and student learning outcomes. However, this must be supported by human resources skilled in data literacy.

Data literacy is a competency encompassing five dimensions: data identification, data understanding, data utilization, data communication, and data reflexivity (Ongena, 2023). The data identification dimension encompasses the ability to find and obtain relevant data, as well as skills in various data formats. The data comprehension dimension encompasses the ability to assess data quality and analyze it. The data utilization dimension must be supported by top management and viewed as a supporting factor in decision-making. The data communication dimension is the ability to present data analysis results comprehensively, present controlled information, and incorporate constructive visualizations to convey messages. Meanwhile, the data reflexivity dimension relates to the implications of data utilization, as data can have both positive and negative impacts on organizations and society. Therefore, data users must possess data ethics, critical thinking, and the ability to assess the implications of data utilization.

The presentation of education profile data in the 2024 education report is very comprehensive.

Regional governments can assess the quality of learning outcomes and educational services provided by all educational units in their regions. Furthermore, regional governments can identify the ten educational units with the lowest performance, which require special attention from the regional government for improvement. The education profile in the 2024 education report represents national education standards grouped into several dimensions (Musakirawati et al., 2023). Dimensions A (quality and relevance of student learning outcomes) and B (equitable distribution of educational quality) are indicators of graduate competency standards in the learning output area. Dimension D (quality and relevance of learning), which includes indicators of content standards, process standards, assessment standards, and management standards, falls within the learning process area. Dimensions C (competence and performance of PTK) and E (participatory, transparent, and accountable school management), which serve as indicators of teacher educator standards, financing standards, and facilities and infrastructure, fall within the learning input area (Kemendikbudristek, 2023a).

In an effort to utilize the Aceh Tamiang regional education report to improve educational quality, the analysis conducted significantly influences the decision-making of educational leaders. By conducting data-driven analysis, educational leaders' policies will be more precisely targeted and in accordance with community needs. Meanwhile, information from Sulistyo et al. (2024), who conducted a case study at SMP X in Depok City, found that stakeholders at the educational unit level still had difficulty interpreting educational report data, requiring technical and non-technical support from the government to analyze root causes and recommend improvements in the educational report.

Therefore, as a model for analyzing problems in educational report, one indicator will be used as an example of root cause analysis in the Aceh Tamiang regional education report. The process of determining solutions to these problems will then be incorporated into the regional education program. Reviewing the numeracy skills of junior high school students in Aceh Tamiang Regency,

with a score of 30.78, less than 40 percent of junior high school students achieved the minimum numeracy competency. Student numeracy skills at the junior high school level are assessed based on students' ability to think using mathematical concepts, procedures, facts, and tools to solve everyday problems in various relevant contexts (Kemendikbudristek, 2023b).

The analysis of numeracy skills problems in Aceh Tamiang Regency begins by tabulating all indicators in the education profile in the 2024 regional education report that are interrelated starting from dimension A as the problem, namely numeracy skills, followed by the root of the problem in the process area (dimension D) including indicators of learning quality, reflection and improvement of learning by teachers, school climate, gaps in educational unit facilities. After that, looking at the root of the problem in the input area (dimensions C and E) including

(including the proportion of teachers who are guru penggerak, the proportion of driving teachers who are appointed as principals or vice principals and the proportion of guru penggerak who are appointed as school supervisors), PTK training experience, the level of teacher participation in the independent teaching platform, the teacher distribution index whether it is equitable in Aceh Tamiang Regency, the use of school resources to improve the quality of education, the use of ICT, school programs and policies, and learning facilities available in educational units. The subsequent problem analysis uses a Fishbone diagram (Budiarti & Pambudi, 2022). Indicators with low/inadequate scores are classified into the 4M+1E (man, machine, method, material, environment).

The following presents an analysis of the numeracy skills of junior high school students in Aceh Tamiang Regency in the form of Ishikawa diagram:

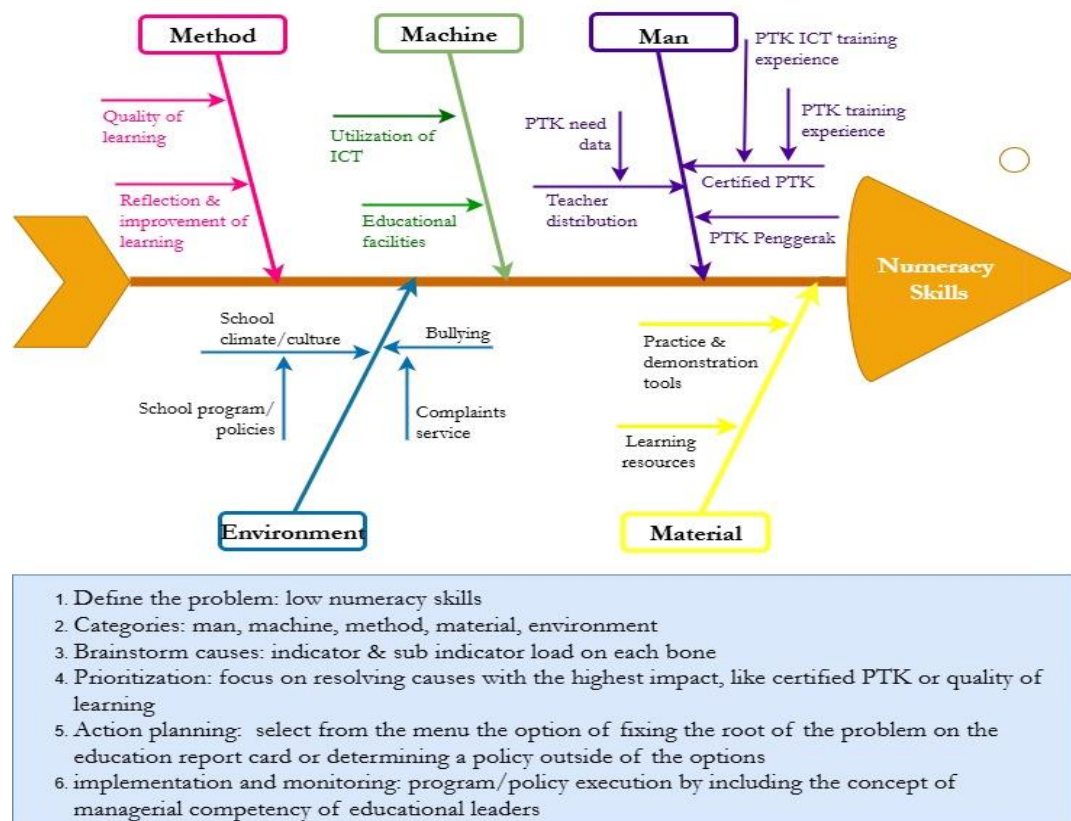


Figure 2. Problem analysis using fishbone diagram (Ishikawa) on numeracy ability of junior high school level in Aceh Tamiang regency (diagram model adapted from Tiwari, 2025)

(Tiwari, 2025)

indicators of the proportion of educators and education personnel (PTK) as penggerak

Figure 2 presents the results of the analysis of numeracy skills problems at the junior high

school level in Aceh Tamiang Regency in 2024. It can be seen that the problems requiring additional intervention fall under the "man" and "environment" categories. Problems in the "method" category are still related to the "man" category. If the quality of the people (man) is good, problems in the "method" category will not occur. Meanwhile, problems in the "machine" and "material" categories also require improvement. However, the local government must allocate a greater proportion of improvement programs to improve the competency of PTK (educators and education personels) in Aceh Tamiang, while still considering educational policies to build a learning environment that supports improving the quality of education. In addition to the composite achievement score for the PTK training experience indicator being lower than the other indicators, the competence and experience of teaching and learning staff have a significant impact on the quality of learning (Lika et al., 2024; Ningrum et al., 2024).

The next stage is the improvement process. Several alternative solutions for improving numeracy skills have been recommended in the 2024 regional education report as a selection of improvement recommendations. However, the selection of solutions to improve students' numeracy skills is the responsibility of the regional government, according to the local needs and context of the Aceh Tamiang region. These improvement efforts will then become a proposed program of activities in the District Education Office's Work Plan and Budget.

The entire management process is accompanied by monitoring and evaluation to ensure the entire educational improvement process runs smoothly. During monitoring and evaluation, it is necessary to evaluate the alignment of program implementation with planning. Not only must budget absorption reach 100 percent (P. Sari et al., 2024), but more importantly, whether the implemented program has a significant impact on improving educational quality. Documentation in the form of field notes is necessary so that the results can be used as comparisons for future programs. Then, findings, both progress and setbacks in implementation, are identified.

2. The Essence of Leadership and Managerial Competence in Educational Transformation

Management of educational program implementation, both at the local government and educational unit level, must be carried out by stakeholders, considering a framework encompassing knowledge, skills, and attitudes, which are core elements of competency. In the era of educational transformation, competency is directed toward competency modeling oriented toward Industry 4.0. Oliveira & Saraiva (2023) characterized Industry 4.0-oriented competencies by adaptive skills, digital, social, and environmental responsibility, problem-solving, emotional intelligence, collaboration, and systemic management.

Meanwhile, Baczynska et al. (2023) define competency as a complex set of skills acquired through training based on knowledge, experience, and tendencies, manifested in behavioral patterns that determine effective performance. Their research concluded that managerial competency consists of three main indicators: problem-solving, openness to change, and employee development.

Educational management is implemented as an effort to ensure educational sustainability (Şemin, 2019). The ultimate manifestation of educational sustainability is meeting the needs of students and parents with the educational services provided and educating students to adapt to the demands of future life. The multidimensional nature of educational sustainability is influenced by several factors, such as the behavior of educational administrators, activities aimed at realizing a future school culture, the responsibilities of stakeholders in realizing future education, and the influence of educational administrators on the educational organization.

Factors influencing educational sustainability further shape educational management culture. Management culture is a collection of consensus knowledge and scientific perspectives that encompass moral norms, work ethics, and work attitudes. Establishing a managerial culture requires interpersonal, managerial, and leadership skills, as well as

appropriate communication and skills to work effectively in uncertain conditions and with information, and to meet the demands of increased productivity.

However, these managerial competencies must be developed into responsible management competencies, as proposed by Laasch et al. (2023) regarding responsible management. Knowledge, skills, and attitudes in the context of ethics and sustainability are not merely individual-centered competency discourse. Knowledge, skills, and attitudes are manifested in the form of personal, behavioral, and intellectual competencies. Because these three elements are formed through interdependent processes and relationships with others, managerial competencies can be accounted for ethically, responsibly, and sustainably.

On the other hand, Bunnell & Gardner-McTaggart (2024) found that managerial leadership competency is the earliest and most commonly used model in organizations. Therefore, theoretically and technically, managerial competency indicators have long been defined. However, with evolving conditions, adjustments will undoubtedly occur in its implementation, aligning with the needs of transformation within educational organizations. Findings from several studies (Baczynska et al., 2023; Bunnell & Gardner-McTaggart, 2024; Juanda & Suharto, 2021; and Vykhreshch et al., 2022) demonstrate that managerial leadership models have developed in several forms of educational organizations, including elementary and secondary schools, universities, and other educational institutions.

Ho et al. (2024) also emphasized the concept of managerial competency in education, stating that among the three teacher leadership models, the champion leader model is the best profile. In its actualization, champion leadership in teacher leadership consists of several indicators, namely excellence in fostering cohesion, advocating for innovation, implementing entrepreneurial leadership, actively acquiring resources, and managing risks to address pressing school issues.

Turning to the implementation of education management at the local government level, in addition to being supported by valid data, in this case educational report, managerial competency is also required from educational leaders. The context of educational leaders referred to here refers to stakeholders involved in education management, both local governments and educational leaders in educational units. Table 1 presents an explanation of the nature of managerial and leadership competency in the era of educational transformation. In educational management practice, programs that have been planned and implemented without the essence of good managerial and leadership competency will only waste funds without having an impact on improving the quality of educational services in the era of educational transformation (P. Sari et al., 2024). In educational management practices, programs that have been planned and implemented without being accompanied by the essence of good managerial and leadership competencies will only waste the budget but will not have an impact on improving the quality of educational services.

Table 1. Articles containing studies of leadership and managerial competencies relevant to educational transformation

No.	Article	The Essence of Leadership and Managerial Competence
A1.	(Laasch et al., 2023)	Responsible management is the development of managerial competencies from ethical, responsibility, and sustainability competencies. The responsible management competency framework consists of personal, behavioral and intellectual competencies as well as independent and interdependent competencies.

No.	Article	The Essence of Leadership and Managerial Competence
A2.	(Baczynska et al. 2023)	Managerial competencies consist of problem solving competencies, openness to change, employee development, management and goal achievement.
A3.	(Juanda & Suharto, 2021)	Managerial competency indicators are cognitive skills, organizational skills, creativity, flexibility/adaptation, communication skills.
A4.	(Vykhreshch et al., 2022)	Professional knowledge of management leads to the use of three different managerial tools, namely (1) organization, management hierarchy with the main focus on the impact on a person from above with the help of motivation, planning, organizing, controlling, stimulating; (2) management culture, namely a set of values developed and recognized by society, organization, group of people, social norms and attitudes, behavioral characteristics; (3) market, market relations, namely relations based on the balance of interests of sellers and buyers. Managerial competence consists of (1) management of the educational process (training, education or personality development); (2) related to the management of educational organizations; (3) management of educational systems (project programs).
A5.	(Brauckmann et al., 2023)	Strategic leadership, contextual solutions, governance using new public management. The principal as a liaison between external and internal. Autonomy, finance and staffing are one hundred percent handed over to the educational organization. The existence of quality standards, competency-based qualification frameworks (related to the stages of the educational leader's career), leadership courses are required for principals when they first take office. Context-sensitive principal leadership.
A6.	(Abdulla et al., 2023)	Systematic leadership, collective and human models, self-awareness, self-reflection, experiential learning, emotional intelligence, constructive and high-performance leadership styles, communities of practice.
A7.	(Meyer et al., 2020)	The practice of setting specific goals has proven successful in improving the quality of education. This is done by implementing leadership that includes openness to the results of achieving educational goals so as to increase member commitment, close monitoring with a focus on problem solving and improvement, distributing responsibility and leadership, developing the collective capabilities and responsibilities of middle leaders.
A8.	(Liljenberg & Wrethander, 2023)	Education for novice principals such as in Sweden in a three-year education period has been proven to have a positive impact on the competence of principals. This education is carried out by integrating school leader training with the school's excellent work practices. The results obtained are an increase in the ability of school leaders to collect data, analyze, and conduct critical reflections so as to help them in making relevant decisions in school leadership.
A9.	(González-pérez & Ramírez-montoya,	Integration of education 4.0 components with industry 4.0 involves all stakeholders. This integration considers technologies that support

2022)	learning, connectivity, storage infrastructure, institutional guidelines, organizational processes, practices to encourage innovation, digital skills training for teachers, and coexistence with students who are already accustomed to utilizing digitalization.
A10. (Ongena, 2023)	Data literacy has a direct positive impact on the internal performance of an organization. If employees are data literate, it will increase the effectiveness of government organizations. Meanwhile, leaders who use data analysis will improve decision making (internal performance) and service delivery (external performance).
A11. (Bunnell & Gardner-McTaggart, 2024)	From the literature search of the last five decades, it is stated that the leadership style needed by international educational institutions is managerial leadership, with an emphasis on the role of educational management, namely supporting, ensuring and monitoring the continuity of education. It can be concluded that the focus of the leader is on functions, tasks and behaviour as a manager.
A12. (Ho et al., 2024)	The teacher leadership profile with cluster analysis through teacher entrepreneurial behavior shows that the champion leader profile is the largest and facilitator profiles, where the champion leader profile consists of several indicators, namely excelling in fostering solidarity, advocating innovation, implementing entrepreneurial leadership, actively obtaining resources and managing risks to address pressing school problems.strongest profile compared to the friendly and implementing

3. Finding a Conceptual Framework of Managerial Competence of Leaders in Educational Transformation

Based on the explanation of the problem analysis model using the Ishikawa diagram above, along with an analysis of policy and program interventions that need to be considered to improve the quality of educational outcomes and services, a synthesis process will be conducted to develop a conceptual understanding of the managerial competencies of educational leaders in Aceh Tamiang. The low numeracy skills of junior high school students in Aceh Tamiang Regency are due to several factors related to the 4M + 1E. This educational problem requires specific intervention in the form of leadership policies at the regional level. These policies and programs can be adopted from the improvement menu in the education report card. However, this does not preclude local governments from determining their own policies.

Within all these processes, the managerial competencies of educational leaders are inherent,

encompassing not only skills but also the understanding and attitudes of educational leaders. These competencies naturally develop over time and change with the times. Therefore, data-driven management is a suitable governance approach due to its adaptability to change.

Maximizing educational report card data to improve educational quality must be accompanied by a sound understanding and data literacy. This ensures that educational leaders' decisions are not based solely on assumptions. The policies issued are well-targeted and have a positive impact on improving and enhancing the quality of education. The use of education report data occurs at every stage of management, not only in educational program planning but also in all phases of management. Educational leaders can use education report data as a roadmap for quality improvement, as a benchmark for monitoring and evaluation, thus ensuring a more measurable and systematic monitoring of program success.

Beyond being data-driven, the era of educational transformation must also be

approached with innovation. Organizational governance is no longer simply carried out using the classic POAC (planning, organizing, actuating, controlling) principles; rather, it focuses on how educational leaders can drive change and innovate in efforts to improve educational quality. Therefore, transformative managerial competencies must be mastered by all educational stakeholders, including principals, teachers as learning leaders in the classroom

(Mufidah et al., 2025), and local governments as those responsible for the external quality assurance process in their regions (Wawo et al., 2021). These competencies enable educational leaders to drive organizations to achieve their goals effectively, efficiently, and sustainably.

This dialectical process will be depicted in a conceptual framework diagram of leaders in educational transformation as follows:

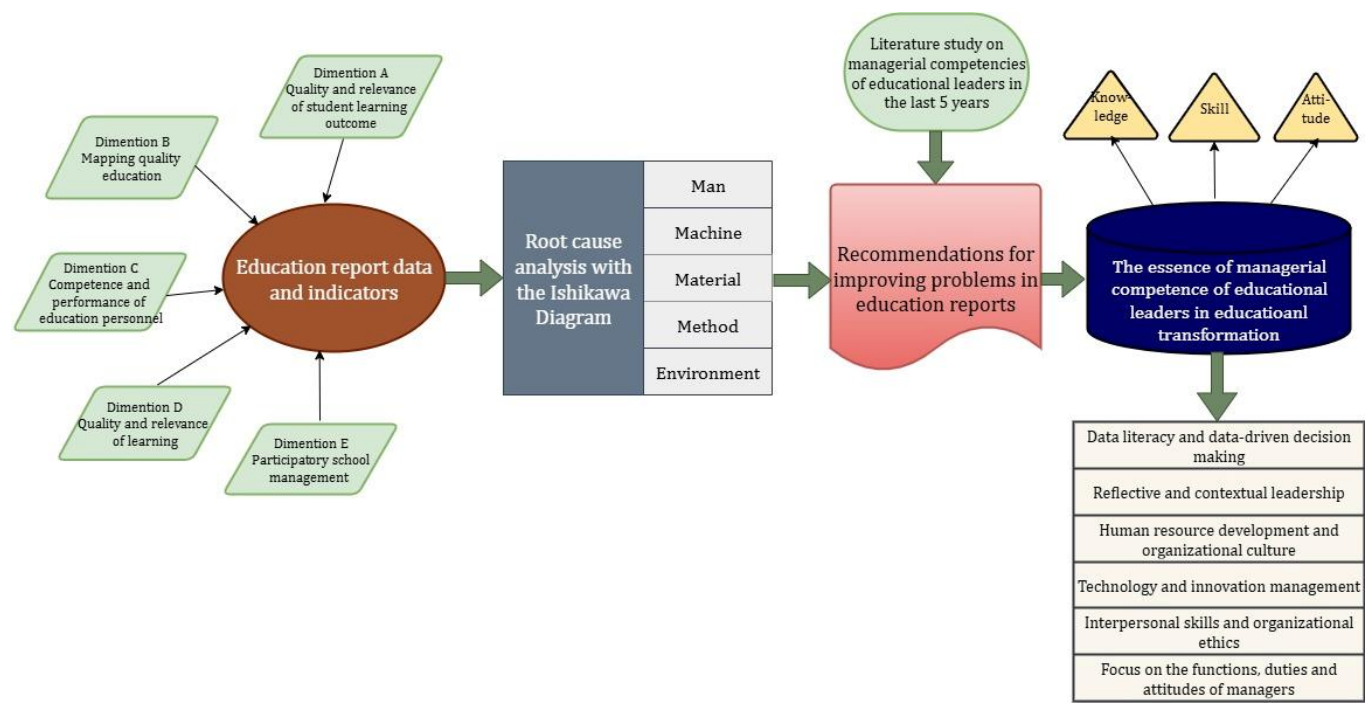


Figure 3. Conceptual framework of managerial competencies of leaders in educational transformation

Figure 3 shows that the solution to the problems in the education report, which is an alternative choice of educational programs, emerged from the analysis of the root causes of each indicator in the education report. These indicators are contained in the dimensions of quality and relevance of student learning outcomes, the dimension of quality education mapping, the dimension of competency and performance of PTK, the dimension of quality and relevance of learning, and the dimension of participatory, transparent, and accountable school management. Each problem can be categorized into human, machine, material, method, and environmental factors. From the relevant literature study, various examples of managerial competencies were

obtained, including knowledge, skills, and attitudes (Bunnell & Gardner-McTaggart, 2024; Laasch et al., 2023). All of these managerial competencies are competencies used in the transformative management of educational organizations. To avoid overly broad technical indicators of managerial competency obtained from the literature review, the researchers further classified them into more general indicators: data-based literacy and decision-making, reflective and contextual leadership, human resource development and organizational culture, technology and innovation management, interpersonal skills and organizational ethics, and a focus on the functions, duties, and attitudes of managers.

This research has limitations in its literature review, which is still limited to a narrative review. However, the results of the literature review are representative enough to create a conceptual framework for managerial competency in

D. CONCLUSIONS AND SUGGESTIONS

The education report card is part of the transformation process to encourage regions and educational units to initiate improvements in education quality based on empirical evidence. Local governments and educational units can reflect on how to improve educational outcomes in the future. Consequently, data literacy is required to analyze the education report card, which includes data identification, data understanding, data utilization, data communication, and data reflectivity. Analysis of the education report card using the Ishikawa diagram outlines the educational problems presented in the education report card through the 4M + 1E indicators, then breaks them down into sub-indicators with more technical problem descriptions. To address these educational issues, the education report card provides a choice of improvement recommendations. Educational leaders can choose alternative solutions from the recommendations or develop their own solutions, but still rely on the results of the education report card analysis to determine which problems require urgent intervention or a larger portion of improvement, ensuring targeted solutions.

Furthermore, as part of the education transformation, data-driven policymaking is a crucial aspect of education management. Although the implementation of management still follows the POAC (planning, organizing, actuating, and controlling) pattern, there is an essence of managerial competence that must accompany it. From the analysis we have conducted, the concept of managerial competence is found to be related to the use of education report in transformative educational management. The managerial competence of leaders in educational transformation includes 3 domains, knowledge, skills, and managerial attitudes consisting of (1) data literacy and data-based decision making, (2) reflective and contextual leadership, (3) human resource development and organizational culture,

educational transformation. For further development, it is recommended to use a more systematic technique to cover a wider range of articles and uncover new, more complex concepts.

(4) technology and innovation management, (5) interpersonal skills and organizational ethics, (6) focus on the functions, duties and attitudes of managers.

This research is limited to identifying the concept of managerial competency of educational leaders and analyzing education report to determine root causes and solutions for improving educational services. Further research into the concept of managerial competency of educational leaders could utilize more systematic techniques to produce a more complex concept. Furthermore, action research, as a continuation of this research, could be conducted. This would not only identify gaps but also provide more empirical evidence regarding the themes raised in this study.

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