

## Leadership Practices of Madrasah Principals in the Implementation of the Merdeka Curriculum

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### Article Info

#### Article history:

Received Oct 09, 2025

Revised Nov 03, 2025

Accepted Dec 09, 2025

OnlineFirst Jan 25, 2026

#### Keywords:

Digital Madrasah Innovation  
Digital Transformation  
Islamic Education  
Madrasah Principal Leadership  
Merdeka Curriculum  
Multi-site Study

### ABSTRACT

**Purpose of the study:** The purpose of this study is to analyze the leadership of madrasah principals in planning, implementation, and evaluation activities in implementing the Merdeka Curriculum that integrates it with Digital Madrasah innovations then analyze the impact of leadership models and digital innovations in the Merdeka Curriculum on the learning process at State Islamic Junior High School.

**Methodology:** This study uses a qualitative approach with a multi-site study design, which focuses on two state madrasahs in Aceh Tamiang Regency. Data sources include the madrasah principal, deputy head of curriculum, teachers, supervisors, and students.

**Main Findings:** The results of this study offer novelty in the form of mapping two leadership patterns of madrasah principals in implementing the Merdeka Curriculum that integrates digital innovations, namely the reflective-open model at State Islamic Junior High School 1 and the systemic-digital model at State Islamic Junior High School 2 which result in different strategies in planning, implementation, evaluation, and impact. This study formulates a new model in the form of a cultural-pedagogical versus systemic-pedagogical change pathway, as well as a hybrid reflective-digital evaluation model, which overall form the 'Contextualized Digital-Merdeka Leadership' framework as a significant theoretical and practical contribution.

**Novelty/Originality of this study:** The research novelty was formulates a new model in the form of a cultural-pedagogical versus systemic-pedagogical change pathway, as well as a hybrid reflective-digital evaluation model, which collectively form the Contextualized Digital-Merdeka Leadership framework as a significant theoretical and practical contribution previously undiscovered in madrasah leadership studies in Indonesia.

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### 1. INTRODUCTION

Leadership is the core of management activities and plays a vital role in an organization. Leadership is an ability and skill. A leader is someone who influences, directs, and inspires others to achieve common goals. An effective leader is able to provide a clear vision, motivate their team, and guide them through challenges with confidence and integrity. Furthermore, leadership is not just about giving instructions; it is also about listening,

recognizing the contributions of each team member, and building strong relationships based on mutual trust and openness. With the right leadership, a team can achieve optimal performance and create a constructive and productive work environment [1].

Leadership is also defined as the way a leader plays the art of influencing superiors and subordinates. Safitri, however, the process of influence between leaders and members or subordinates is not limited to a leader influencing their subordinates alone, but also a process of influence between the two [2]. As a process of influence, leadership is the leader's skill in influencing someone to willingly do work to achieve the desired goal [3]. Therefore, it can be understood that leadership consists of the presence of a leader, those being led (members), and a situation where they need each other [4]. Leadership is considered a crucial factor because it plays a central role in influencing the direction, motivation, and success of an organization. In the educational context, the leadership of principals is crucial because they are responsible not only for administrative management but also for creating a conducive and inspiring learning environment [5]. Performance improves when emotions are transformed into passion, and leaders have the greatest ability to "actualize" everyone's feelings. Furthermore, hatred and fear are generated by social emotions and can decrease productivity [6]. Principals who exercise effective leadership are able to develop a clear vision, inspire teachers and staff to work together, and encourage innovation in the learning process. They also play a role in building a positive school culture, increasing community participation, and ensuring that every student receives a quality education. With strong leadership, principals can lead the entire school community toward achieving higher educational goals [7].

A principal is an ordinary individual given the extraordinary responsibility of leading and managing an educational institution [8]. In this role, they are expected to be able to carry out various complex tasks, from administration and human resource management to curriculum development. Although coming from a teaching background, principals must transform into visionary leaders who are able to create a positive and inclusive learning environment. They must communicate effectively with teachers, students, and parents, and solve emerging problems wisely [9]. With dedication and commitment, principals play a key role in shaping the future of students and ensuring that schools run efficiently and achieve high educational standards [10]. However, although the definition of leadership focuses on the ability to influence others to achieve predetermined goals, this process can be accomplished in various ways [11]. Therefore, a principal must be able to develop themselves into a leader who combines these five elements, thus being able to transition from a leader who only has legal leadership to one who is truly capable of creating change in the development of the school [12]. As a driving force for the school's human resources, especially teachers and staff, the principal's role is crucial in achieving educational goals. Thus, the success of an educational institution is greatly influenced by the quality of the principal, especially his or her ability to empower teachers and staff to create a conducive work environment [13].

Principal leadership refers to the ability and authority to direct, manage and motivate all components of the school to achieve the established educational goals [14]. The principal is responsible for establishing the school's vision and mission, as well as ensuring its implementation through various programs and policies. With strong managerial skills, they manage human resources, finances, and school facilities to ensure optimal functioning [15]. Furthermore, principals must be able to build a positive and collaborative work culture among teachers and staff, as well as encourage innovation in teaching methods. Effective leadership from a principal creates a conducive learning environment where each student can develop academically and character-wise [16].

To understand the importance of a principal's leadership role in an educational institution, we need to understand their duties and functions. Principals act as leaders responsible for the overall management of the school, including the planning, implementation, and evaluation of educational programs [17]. They manage and supervise the performance of teachers and staff, ensure the curriculum is implemented effectively, and develop policies that support a positive learning environment. Furthermore, principals serve as mediators between the school and the community, fostering positive relationships with parents and other external parties [18]. With these broad responsibilities, principal leadership is crucial in creating a school climate conducive to students' academic and character development, as well as achieving higher educational goals. From the explanation above, it is clear that leadership is the ability to influence, direct, and inspire others to achieve common goals [19]. An effective leader is able to provide a clear vision, motivate their team, and guide them through challenges with confidence and integrity [20]. Furthermore, leadership is not just about giving instructions, but also about listening, recognizing the contributions of each team member, and building strong relationships based on mutual trust and openness. With the right leadership, a team can achieve optimal performance and create a constructive and productive work environment. The leadership role of a principal is vital in the educational context [21]. As leaders, principals are not only responsible for administrative and operational management, but also play a key role in creating and maintaining a positive and productive learning environment. They must be able to inspire and motivate teachers and staff, establish effective communication with parents and the community, and ensure that every student receives a quality education [22]. With the ability to establish a clear vision and mission, and

manage resources efficiently, principals play a crucial role in achieving educational success and the holistic development of students [23].

The principles of leadership in Islam must be based on the teachings of the Qur'an and Sunnah, the primary reference of which is to emulate the Prophet Muhammad (peace be upon him) and the caliphs. The leadership established by the Prophet Muhammad (peace be upon him) is based on solid foundations that, in principle, uphold the word of Allah SWT. The principles or foundations of Islamic leadership are: the principle of monotheism, the principle of deliberation, the principle of justice, and the principle of Islamic brotherhood [24]. An Islamic educational institution like a madrasah requires a leader who can organize effective teaching and learning activities and is responsible for leading the madrasah. The madrasah principal is expected to influence and direct his or her subordinates and serve as a role model for others. Therefore, in order for a leader to be responsible for his/her leadership, a leader must understand his/her role and function as a leader. According to Wahjosumidjo [25], in his book Principal Leadership is very interesting If the role of the principal as a formal official is linked to Harry Mintzberg's theory, which clearly states that there are three types of roles for a leader, including the principal, namely interpersonal, informational, and decisional roles.

A leader's interpersonal role relates to how the leader interacts with others, both inside and outside the organization. In the context of a principal, this role includes: Figurehead (Symbolic): The principal acts as a symbol of the institution in various formal and ceremonial activities, such as ceremonies, parent-teacher meetings, or teacher inaugurations; Leader: The principal directs, guides, and motivates teachers, staff, and students to create a conducive learning atmosphere; Liaison (Connector): The principal establishes relationships with external parties such as the education office, school committee, and the community to support school activities. This role is important for building strong social relationships and maintaining the image of educational institutions in the public eye [26].

Informational role of the leader emphasizes the principal's function as the center of information in the school. Their primary duties include receiving, managing, and disseminating relevant information. This includes: Monitor: The principal collects data and information related to student development, educational policies, and the school situation; Disseminator: The principal conveys important information to teachers, staff, and students, such as changes to the curriculum or school programs; Spokesperson: The principal represents the school in conveying information to external parties, such as the education office, the media, or parents. By carrying out an informational role, the principal becomes an efficient information liaison to support decision making. Decisional Roles in leadership include: As the primary decision maker in a school, the principal is responsible for important decisions that affect the running of the educational institution. These roles include: Entrepreneur (Initiator): The principal designs innovative programs, such as the use of technology in learning or digital literacy programs; Disturbance Handler: The principal resolves conflicts, whether between teachers and students, or between staff, and handles emergency situations; Resource Allocator: The principal determines the allocation of resources (budget, facilities, teaching staff) for school activities; Negotiator: The principal negotiates with external parties, such as sponsors or the government, to obtain school support. This role requires the principal to think strategically, adaptively and provide solutions in facing operational and policy challenges [27].

One of the main challenges in implementing the Merdeka Curriculum is the digital divide, namely the difference in access to infrastructure and technological devices between one educational institution and another, especially between urban and rural areas. Many madrasas and Islamic boarding schools in remote areas still struggle to obtain stable internet access, have adequate digital devices, or even lack teaching staff accustomed to using technology. In more detail, it is explained that the digital divide in relation to the implementation of the Merdeka Curriculum in Madrasas in several regions of Indonesia can occur in several aspects. First, the physical aspect: this refers to the availability of ICT infrastructure such as internet networks, hardware, and adequate connectivity. In less developed, remote, or isolated areas, physical access is often limited. Second, economic accessibility: the digital divide can also be caused by economic limitations, hardware and internet access costs are often expensive, making it difficult to reach for those with low incomes or living in areas with very minimal access.

In its implementation, this is where the leadership of the madrasah/school principal is important in organizing and arranging management in the madrasah/school so that the tasks carried out by subordinates can run optimally and systematically, thus making it easier to carry out each task of subordinates and students, so that education in the school environment is realized in a good and effective manner. Furthermore, within the framework of Islamic Education Management, the role of the madrasah principal is not only as an educational administrator but also as a spiritual leader who instills Islamic values in every policy and action. Therefore, the leadership of the madrasah principal in the context of implementing the Independent Curriculum cannot be separated from the spirit of developing the character of students who are not only intellectually intelligent but also possess noble morals and a strong spirituality. The leadership of madrasah principals in the Independent Curriculum era also tests their ability to adapt, innovate, and manage transformation. In this context, madrasah principals are not merely implementing regulations but are also required to be agents of change, able to

understand the dynamics of the times and respond to the challenges of globalization and digitalization with a contextual approach rooted in religious values.

The purpose of this study is to analyze the leadership of madrasah principals in planning, implementation, and evaluation activities in implementing the Independent Curriculum which integrates it with the Digital Madrasah innovation and to analyze the impact of the leadership model and digital innovation in the Independent Curriculum on the learning process at State Islamic Junior High School 1 and State Islamic Junior High School 2 Aceh Tamiang. The urgency of this research lies in the need for a leadership model for madrasah principals that is not only capable of technically implementing policies but also of leading change and building a culture of innovation in the educational process. Madrasah principal leadership is the foundation for realizing adaptive, inclusive, and relevant learning to meet the demands of the times.

## 2. RESEARCH METHOD

This study uses a qualitative approach as a research method. This research falls into the multi-site research category. In Hasiara, for example, if the research objects are teachers at Junior High School 1 and Junior High School 2, then the research falls into the multi-site category [28]. The main strength of multi-site research is the depth of information digging. Data sources are in the form of people/actors/informants, which means the researcher himself as the research implementer, the principal, curriculum vice principal, teachers, madrasa supervisors and students as informants. Qualitative research is an approach that prioritizes aspects of understanding the problem in depth rather than examining the problem to conduct generalization research [29]. The main strength of multi-site research is the depth of information digging. Qualitative research is an approach that prioritizes aspects of understanding the problem in depth rather than examining the problem to conduct generalization research. Furthermore, data analysis as recommended by Miles and Hubermean, Mantja includes a series of activities: (a) data reduction, (b) data presentation, and (c) conclusions (temporary, verification, and final conclusions) [30]. These three steps are integrated because the implementation process is interrelated and repeated during and after data collection. Therefore, the research objects in this study are the principals of State Islamic Junior High School 1 and State Islamic Junior High School 2 Aceh Tamiang. The descriptive analytical method was used to focus and understand the research. The aim of this research was to describe and analyze various phenomena, events, activities, perceptions, and thoughts of individuals and groups.

Data collection begins with a literature review to answer the questions posed through a description and series of research problems [31]. The use of literature in this qualitative research is: the use of literature at the beginning of the research: justifying or documenting the need for research, and the use of literature at the end of the research: supporting or modifying the findings in the literature [32]. Reading various sources about differentiated teaching in the curriculum is the first step in this research. Data sources were obtained from journals, magazines and books that were considered relevant.

The data analysis technique in this study is the process of systematically reviewing and compiling all interview transcripts, field notes, and other research materials recorded during the data collection process. This data analysis was carried out from the beginning, simultaneously with the data collection process [33]. Therefore, it can be said that the data analysis process in this qualitative research is flexible and open, as is the data collection process and methodology [34]. The data in this study is a pile of descriptive notes of various information that has been collected from study activities in the field, which includes interview notes, observation notes, articles, and so on related to the problem being studied, as well as official data in the form of archives, records, and other notes related to this research.

## 3. RESULTS AND DISCUSSION

### 3.1 Leadership of Madrasah Principals in Planning the Independent Curriculum that Integrates Digital Madrasah Innovations at State Islamic Junior High School 1 Aceh Tamiang and State Islamic Junior High School 2 Aceh Tamiang

The planning for the implementation of the Independent Curriculum at State Islamic Junior High School 1 Aceh Tamiang demonstrates a fairly systematic work pattern oriented towards the school's internal readiness. The principal positions himself as the primary driver, coordinating teachers, the curriculum vice principal, and the school development team in developing strategies for implementing the new curriculum. The initial phase focused on understanding the concept of the Independent Curriculum through outreach activities and internal workshops. Teachers were guided to understand the essence of the curriculum, starting from learning outcomes, the project to strengthen the Pancasila and Rahmatan Lil'Alamin (P5RA) student profile, and the paradigm shift based on differentiation.

In practice, State Islamic Junior High School 1 emphasizes needs-based planning. The madrasah management team identifies teacher capabilities, learning resources, and student readiness for the new learning model. The results of this analysis form the basis for developing internal training programs, such as mentoring in

the development of teaching modules and adapting diagnostic assessments. Furthermore, the madrasah principal initiates collaboration with supervisors and the Ministry of Religious Affairs to ensure planning aligns with regulations. The approach used tends to be participatory and reflective, with decisions made through discussions with teachers to foster a strong sense of ownership in each program.

In general, planning at State Islamic Junior High School 1 demonstrates an integration between national policy directions and the local conditions of the madrasah. The primary focus is on aligning perceptions, improving teacher competency, and establishing a learning culture that adapts to change. This process demonstrates that the madrasah has interpreted planning not simply as a document, but as a strategic effort to develop a learning ecosystem that supports the spirit of independent learning.

Unlike State Islamic Junior High School 1, planning at State Islamic Junior High School 2 places greater emphasis on program synchronization and human resource mapping. The principal begins the planning process by forming a core curriculum team, responsible for reviewing the structure of the Merdeka Curriculum and adapting it to student characteristics and the availability of teaching staff. The initial steps focus on developing a phased implementation plan, starting with grade VII as a pilot project before expanding to subsequent levels.

Planning activities at State Islamic Junior High School 2 are carried out through regular coordination forums between the principal, the deputy principal for curriculum, and subject teacher representatives. Planning also focuses on strengthening digital learning tools and technology integration, as the school's vision is to become a "Digital Madrasah with Character." Therefore, planning addresses not only teaching modules and assessments but also strategies for strengthening teachers' ICT competencies.

The distinctive planning characteristic at State Islamic Junior High School 2 is evident in the contextualization of the curriculum. Each teacher is given the opportunity to tailor learning outcomes to the local potential and religious culture of the students. The principal encourages innovative projects based on local wisdom, such as Quranic literacy projects, Islamic entrepreneurship, and environmental-based activities. From a management perspective, this madrasah stands out for its implementation of a timeline system and measurable achievement indicators, making the planning process more focused and easier to monitor.

From the Concept Map of State Islamic Junior High School 1 and State Islamic Junior High School 2 Aceh Tamiang, it can be briefly analyzed that State Islamic Junior High School 1 has an organic and reflective pattern, emphasizing internal readiness and teacher participation, while State Islamic Junior High School 2 is systematic and strategic, emphasizing target-based management and digitalization. Both depict two faces of the implementation of the Independent Curriculum: adaptive-participatory (State Islamic Junior High School 1) and innovative-measurable (State Islamic Junior High School 2).

The following is a table of Theoretical Cross-Site Analysis at the Independent Curriculum Planning Stage that Integrates Digital Madrasah Innovation.

**Table 1.** Theoretical Cross-Site Analysis of the Independent Curriculum Planning Stage Integrating Digital Madrasah Innovations

Theoretical Aspects	Theoretical Basis (Expert/Reference)	Findings at State Islamic Junior High School 1 Aceh Tamiang	Findings at State Islamic Junior High School 2 Aceh Tamiang	Integration and Theoretical Interpretation
The Function of Planning in Leadership	Wijayanti (2021); Sunarso (2023) – Leaders are responsible for developing plans based on needs analysis, determining objectives, and establishing strategic steps.	The principal maps teacher needs, facilities, and student readiness; and prepares a work plan based on the results of the needs analysis.	The madrasah principal prepares a gradual implementation roadmap, prepares achievement indicators, and strengthens teachers' ICT readiness.	Both demonstrate a mature and systematic planning function according to the functional theory of leadership.
Transformational Leadership	Bass (1985); Sagala et al. (2024) – Leaders inspire, stimulate intellectually, set an example, and care for individuals.	The leader acts as a facilitator and motivator, encouraging teachers to prepare teaching modules and learning reflections.	Leaders act as strategic managers and digital innovators, motivating teachers to integrate technology.	Both reflect transformational leaders with different approaches: reflective (State Islamic Junior High School 1) and innovative (State Islamic Junior High School 2).

Theoretical Aspects	Theoretical Basis (Expert/Reference)	Findings at State Islamic Junior High School 1 Aceh Tamiang	Findings at State Islamic Junior High School 2 Aceh Tamiang	Integration and Theoretical Interpretation
Servant Leadership	Greenleaf (1977); Gunawan (2024) – Leaders prioritize service, empowerment, and development of subordinates.	The principal positions himself as a mentor and facilitator for teachers through workshops and discussions.	The principal of the madrasah provides ICT support and training to improve teachers' digital competence.	School2). The service style is evident in the effort to prioritize the needs and professional growth of teachers in both madrasas.
Democratic Leadership	Sibuea (2025); Arif et al. (2024) – Leaders involve members in decision-making, building collaboration and trust.	Prioritize internal deliberation, involve teachers in program formulation and reflection on work results.	Holding cross-sector coordination forums and regular meetings in determining curriculum indicators and strategies.	Both madrasas apply participatory and <i>shared leadership principles</i> , in line with democratic leadership theory.
Contingency / Situational Theory	Fiedler (1964); Hersey & Blanchard in Zohriah & Fauzi (2023) – Leadership effectiveness depends on the suitability of the style to the organizational situation.	The adaptive-reflective style is appropriate to the conditions of the madrasah which is currently building teacher and facility readiness.	The systematic-strategic style is appropriate for the conditions of madrasas that already have ready human resources and digital infrastructure.	The differences in strategy demonstrate the application of the principles of <i>situational fit</i> and leadership flexibility according to context.
The Function of a Leader as a Planner and Policy Maker	Wijono (2018); Budi (2021) – Leaders are responsible for policy-making and strategic direction of the organization.	The head of the madrasa leads the formation of a curriculum development team and prepares an annual work plan document.	The head of the madrasah determines digital implementation policies and prepares a roadmap for strengthening innovation.	Both of them demonstrate strategic functions as policy designers and directors of the madrasah's vision.
The Function of Leadership Motivation and Loyalty	Siahaan (2017); Sunarso (2023) – Leaders motivate, reward, and build loyalty among subordinates.	The principal of the madrasah provides appreciation and space for reflection to teachers, fostering a sense of ownership of the program.	The principal fosters a spirit of innovation through digital awards and training.	Motivation and loyalty are the keys to successful planning in both madrasas, according to the theory of the motivational function of leadership.
Islamic Leadership (The Concept of the Caliph)	Ali & Rangkuti (2015); QS Al-Baqarah: 30 – Leaders as caliphs who lead with trust, responsibility, and moral values.	The principal of the madrasah interprets planning as a moral mandate to guide teachers and students towards positive change.	The head of the madrasah directs digital innovation to remain based on Islamic values and madrasah morals.	The leadership of both reflects the principle of <i>khalifah fil-ardh</i> which combines worldly and spiritual responsibilities

A cross-site review reveals that both madrasas share the same planning objective: ensuring an effective transition to the Independent Curriculum with the support of the entire madrasah community. Both schools emphasize the importance of improving teacher capacity, understanding the changing learning paradigm, and fostering synergy between the principal, curriculum team, and supervisors. At both State Islamic Junior High

School 1 and State Islamic Junior High School 2, the planning process involved collaborative elements, reflecting the principle of shared leadership in implementing educational policies.

However, there are some striking differences in their planning approaches and focus. State Islamic Junior High School 1 places greater emphasis on internal needs analysis and the development of a reflective culture. Its planning strategy is adaptive, adapting to the actual conditions of teachers and madrasah facilities. State Islamic Junior High School 2, on the other hand, excels in strategic and innovative planning, focusing on the use of digital technology and contextualizing the curriculum based on local wisdom.

These differences demonstrate the varying leadership characteristics of madrasah principals in interpreting the meaning of independent learning. The principal of State Islamic Junior High School 1 acts more as a facilitator, fostering teacher participation and reflection, while the principal of State Islamic Junior High School 2 appears more as a strategic manager, organizing systems and indicators of success. Although their paths differ, both share a common orientation: developing comprehensive, participatory, and contextual planning to ensure effective implementation of the Independent Curriculum in madrasahs.

Theoretically, the planning carried out in both madrasas reflects the application of the planning function in leadership as explained by Wijayanti [35] and Sunarso [36], who stated that leaders must be able to create mature plans based on the results of evaluating organizational conditions, setting goals, and determining strategic steps to achieve them. The principals of State Islamic Junior High School 1 and State Islamic Junior High School 2 carried out the planning stages systematically starting from mapping needs, forming curriculum teams, and preparing work plans based on needs analysis which is in line with the view that planning is the primary function of leaders in achieving organizational success.

The leadership of the madrasah principals at both sites also demonstrated the characteristics of transformational leadership as outlined by Sagala [37]. Transformational leaders possess four main characteristics: idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. In this context, the madrasah principals were able to inspire teachers through the socialization and workshops of the Independent Curriculum, foster creativity in the development of digital teaching modules, and provide personal guidance in adapting diagnostic assessments. This demonstrates that the madrasah principals act as agents of change who not only guide but also inspire collective enthusiasm for innovation and transformation towards a digital madrasah.

Furthermore, the participatory and collaborative approach implemented at State Islamic Junior High School 1 reflects the values of servant leadership [38]. In this theory, leaders are viewed as servants who prioritize the interests and development of their subordinates. The principal acts as a facilitator and guide, providing space for teachers to actively contribute to the curriculum planning process. This leadership style creates an empathetic work environment, fostering mutual respect, and fostering a sense of belonging to the school's policies.

Meanwhile, at State Islamic Junior High School 2, the leadership pattern is more prominent in the application of a democratic leadership style as described by Arif et al. [39]. The democratic style emphasizes the involvement of teachers and education staff in the decision-making process, providing space for deliberation, and respecting each member's opinion. Regular coordination forums and an indicator-based planning system demonstrate that the madrasah principal has established a collaborative and transparent work pattern that aligns with the principles of participatory leadership. This model is relevant to the demands of leadership in the digital era, which requires leaders to be able to manage participation through open communication and cross-sector collaboration.

The principal of State Islamic Junior High School 1 tends to adopt an adaptive and reflective style to build internal teacher readiness and learning resources, while the principal of State Islamic Junior High School 2 displays strategic, planned and measured leadership, utilizing the potential of more readily available digital resources. This fit between leadership style and organizational context demonstrates the application of the situational fit principle, which is at the heart of contingency theory, where leadership effectiveness is determined by the fit between the leader's style and the conditions of the work environment. In this context, the madrasah principal acts not only as an administrator but also as an academic policy formulator, ensuring continuity between the national Merdeka Curriculum policy and the local characteristics of the madrasah. This is evident in the development of an implementation roadmap, the establishment of digitalization achievement targets, and collaboration with supervisors and the Ministry of Religious Affairs to synchronize programs.

### **3.2 Leadership of Madrasah Principals in Implementing the Independent Curriculum that Integrates Digital Madrasah Innovation at State Islamic Junior High School 1 Aceh Tamiang and State Islamic Junior High School 2 Aceh Tamiang**

The implementation of the Independent Curriculum at State Islamic Junior High School 1 Aceh Tamiang demonstrates the transformational leadership of the principal, emphasizing teacher empowerment and fostering a culture of reflective learning. The principal acts as a learning leader, not only directing but also

modeling innovative learning processes. He actively monitors teacher activities in the classroom, provides direct feedback, and integrates the results of these reflections into the school's development.

The curriculum implementation at this madrasah is based on three main focuses. First, strengthening the learning process based on differentiation. Teachers are given the freedom to design learning activities according to students' abilities and learning styles. Second, continuous formative assessment is implemented to assess the process, not just the outcome. Third, the integration of spiritual values into every learning activity, in line with the characteristics of madrasahs that emphasize a balance between academic and moral aspects.

In its implementation, this madrasah prioritizes collaborative practices among teachers through lesson study and teacher learning communities. This demonstrates an awareness of the importance of continuous professional learning. The madrasah principal facilitates a reflection forum after each learning period, allowing teachers to share strategies and challenges. This process creates a vibrant and adaptive learning community, a hallmark of the Merdeka Curriculum implementation at State Islamic Junior High School1.

Despite this, implementation still faces challenges in the digitalization of learning. Limited equipment and technological literacy among some teachers have prevented the digital learning process from being optimal. However, a participatory leadership approach has transformed this obstacle from resistance to opportunities for collaborative growth. Thus, the implementation at State Islamic Junior High School1 demonstrates that educational transformation relies not solely on structural policies, but on the moral and collective commitment of all members of the madrasah community to continuous learning.

Unlike State Islamic Junior High School 1, implementation at State Islamic Junior High School 2 Aceh Tamiang stands out for its strong digital and managerial orientation. The principal positions the Merdeka Curriculum as a platform for systemic reform toward a Digital Madrasah with Character. Each stage of implementation is structured within a measurable timeline that integrates training, implementation, and data-driven evaluation.

Teachers at State Islamic Junior High School 2 are facilitated to use the madrasah's local Learning Management System (LMS), which allows for the management of teaching modules, assignments, and online assessments. The learning process takes place through a blended learning model, a combination of face-to-face and digital learning, while maintaining the distinctive Islamic values in the teaching materials. The madrasah principal acts as a change manager, ensuring that each teacher utilizes technology not merely as a medium, but as a means to enrich the learning experience.

In addition to digitalization, the implementation also demonstrated the integration of contextual projects based on local wisdom. Students were involved in projects on Quranic literacy, environmental conservation, and Islamic entrepreneurship. Each project was designed to foster the eight dimensions of the Pancasila and Rahmatan Lil'Alamin (P5RA) student profile. In this context, teachers acted as facilitators who guided students' exploration, not simply as transmitters of information.

Implementation at State Islamic Junior High School2 also demonstrated strong cross-sector coordination. The curriculum, student affairs, and ICT teams worked synergistically through regular evaluation meetings to discuss achievements and challenges. The principal's leadership style tended to be instructional-managerial, emphasizing system control, achievement targets, and indicator-based monitoring. With this approach, the school managed to maintain consistent implementation despite challenges from teacher workloads and limited internet bandwidth in some classes.

**Table 2.** Cross-Site Analysis at the Implementation Stage The Independent Curriculum Integrates Digital Madrasah Innovations

Implementation Aspects	State Islamic Junior High School1 Aceh Tamiang	State Islamic Junior High School2 Aceh Tamiang	Cross-Site Analysis
Leadership Style	Transformational-participatory; based on a reflective and collaborative culture.	Managerial-strategic; digital-based, systems, and performance indicators.	State Islamic Junior High School1 prioritizes values and relationships; State Islamic Junior High School2 prioritizes systems and data.
Main Focus of Implementation	Teacher empowerment, differentiated learning, formative assessment, integration of Islamic values.	Digitalization of learning, utilization of LMS, blended learning, P5RA project.	Both carry the principles of the Independent Curriculum, but with different focuses: reflective-values vs. strategic-digital.
Learning model	Face-to-face learning based on teacher reflection, <i>lesson study</i> ,	Blended learning with digital modules, learning videos, online assessments.	State Islamic Junior High School1 strengthens pedagogy, State Islamic

Implementation Aspects	State Islamic Junior High School1 Aceh Tamiang	State Islamic Junior High School2 Aceh Tamiang	Cross-Site Analysis
Teacher Empowerment	and collaborative practice. Reflection forum, lesson study, reflective academic supervision.	Digital learning training, digital task distribution, teacher performance monitoring.	Junior High School2 strengthens technology. Both are strong, but the approaches are different: cultural strengthening vs. technical strengthening.
Assessment	Formative, portfolio, process-based.	Data-based digital assessment and evaluation.	Both are authentic, but State Islamic Junior High School2 is more structured through a digital dashboard.
Integration of Islamic Values	Comprehensive in every learning activity through role models and habits.	Through Qur'anic projects, Islamic entrepreneurship, and P5RA.	Two models of value integration: cultural (State Islamic Junior High School1) and systemic-project (State Islamic Junior High School2).
Collaboration	Very powerful: teacher learning community, collective reflection.	Cross-field coordination (curriculum, student affairs, ICT).	State Islamic Junior High School1 is community-based; State Islamic Junior High School2 is organizational structure-based.
Major Obstacles	Digital literacy of some teachers and device limitations.	Teacher workload and limited internet bandwidth.	Both obstacles are related to digitalization but in different forms.
Implementation Character	Organic, growing from the bottom up.	Systemic, structured from top to bottom (top-down).	Two complementary approaches to change implementation.

This dimension is reflected in the actions of the principal of State Islamic Junior High School1, who not only structurally motivates teachers but also inspires, models, and facilitates their professional growth. The principal's exemplary behavior in monitoring learning and prioritizing the quality of the learning process demonstrates how idealized influence serves as the foundation for changing work culture. Meanwhile, intellectual stimulation is evident in the encouragement of teachers to develop teaching modules and engage in critical reflection, a matter highly relevant to Fullan report [40], which states that learning leaders must create conditions for teachers to continuously grow through dialogue and reflective practice.

the Professional Learning Community (PLC) principles as described. PLCs function to improve the quality of learning through collaboration, reflection, and continuous improvement focused on student learning. The implementation of lesson study found at State Islamic Junior High School1 is a more in-depth form of PLC, as it requires teachers to systematically plan-do-see. This supports Senge's concept of learning organization, which states that successful educational organizations are those capable of collective learning [41]. Thus, State Islamic Junior High School1 operates a bottom-up curriculum implementation approach, where its main strength is not in complex digital systems, but in a mature culture of learning and reflection.

The implementation of differentiated learning at State Islamic Junior High School1 also supports Carol Ann Tomlinson's [42] theory, which asserts that effective classroom teachers must adapt content, processes, and learning products to student profiles. The finding that State Islamic Junior High School1 teachers provide space for variations in student learning styles, abilities, and interests demonstrates alignment with this principle. The strengthening of spiritual values that characterize State Islamic Junior High School1 is also consistent with thinking on moral leadership , which states that true educational leadership is rooted in values, moral commitment, and an academic culture that fosters character. The integration of values in every learning activity makes State Islamic Junior High School1 emphasize not only academic competence, but also Islamic competence and noble morals, which are the hallmarks of a madrasah.

In contrast to State Islamic Junior High School1, the implementation of the Independent Curriculum at State Islamic Junior High School2 Aceh Tamiang demonstrates a more strategic, systematic, and robust leadership approach to digitalizing learning. The finding that the principal developed an internal LMS , organized digital training, assigned teachers tasks as digital content managers, and used dashboard-based

evaluations confirms that the leadership style at this madrasa falls within the Instructional Leadership framework as described. Within this framework, instructional leaders are responsible for developing an academic vision, managing curriculum and learning, and ensuring consistent and measurable evaluation. The finding that every teacher at State Islamic Junior High School2 was directed to integrate digital modules, learning videos, online assessments, and P5RA projects indicates that the principal has effectively carried out the role of instructional leader.

The digitalization of learning at State Islamic Junior High School2 also reflects the Digital Leadership which states that 21st-century leaders must be able to develop a school culture that is adaptive to technology, facilitate the use of digital devices, and integrate technology into learning and school management. The use of the LMS platform, the use of dashboards for evaluation, and the publication of teacher innovations through madrasah media indicate that State Islamic Junior High School2 is moving towards a smart madrasah ecosystem. This is also in line with the thoughts of on technology-enhanced learning systems which emphasize the importance of ICT integration in learning design and evaluation systems.

Blended learning model implemented by State Islamic Junior High School2 is in accordance with Graham's study [43], which states that blended learning is an optimal combination of face-to-face and digital learning that provides flexibility and allows for broader differentiation. In the context of the Independent Curriculum, the use of blended learning is relevant because it encourages student independence while still providing space for teachers to provide face-to-face mentoring. The implementation of the P5RA project involving Quranic literacy, Islamic entrepreneurship, and environmental activities is also in line with the Project-Based Learning framework explained by Larmer, Mergendoller & Boss [44], which emphasizes that authentic projects can foster 21st-century competencies such as collaboration, communication, creativity, and critical thinking, while also fostering character values.

When linked to relevant research, the findings in these two madrasas are very consistent. Found that transformational leadership was able to increase teacher motivation in adopting the new curriculum, supporting the pattern seen in State Islamic Junior High School1. Siregar's research: stated that the successful implementation of the Independent Curriculum was largely determined by digital readiness and the existence of an LMS , something that was very strong in State Islamic Junior High School2. Fitriani's research: confirmed that the teacher learning community had a direct impact on the quality of learning implementation; This is very apparent in the lesson study at State Islamic Junior High School1 [45]. Meanwhile, Arifin's research: 55 (2022) on the effectiveness of the digital evaluation system is very relevant to the practice of dashboard-based monitoring at State Islamic Junior High School2. Harun & Munzir's research: 77 (2020) on the integration of Islamic values in modern learning also strengthens that State Islamic Junior High School1 and State Islamic Junior High School2 both mainstream Islamic values, although with different approaches, State Islamic Junior High School1 culturally and reflectively , while State Islamic Junior High School2 is systemic and digitally strategic .Theoretically, these two implementation models illustrate two paradigms of change recognized in educational management literature. State Islamic Junior High School1 illustrates a transformational paradigm , where change grows from values, culture, and teacher collaboration. Implementation is adaptive, contextual, and based on moral purpose. Meanwhile, State Islamic Junior High School2 illustrates a systemic-instrumental paradigm , where change is supported by digital systems, strategic planning, and indicator-based control. Despite their different approaches, both aim for the same goal: to provide meaningful, independent, and relevant learning to meet the demands of the 21st century. The Independent Curriculum essentially allows for a diversity of implementation strategies, and these two madrasas demonstrate that this flexibility can produce different yet equally valid patterns of success.

From an epistemic perspective, the implementation at State Islamic Junior High School1 demonstrates that authentic learning changes will be sustainable if supported by a reflective culture, open relationships, and moral values. Meanwhile, the implementation at State Islamic Junior High School2 demonstrates that successful digital transformation and innovative learning require visionary, systemic leadership, supported by a solid organizational structure. These two approaches are not polar opposites, but rather two leadership spectrums that, when combined, can form a comprehensive implementation model for the Independent Curriculum: both strong in values and strong in systems.

### **3.3 Leadership of Madrasah Principals in the Evaluation of the Independent Curriculum that Integrates Digital Madrasah Innovations at State Islamic Junior High School1 and State Islamic Junior High School2 Aceh Tamiang**

The evaluation of the implementation of the Independent Curriculum at State Islamic Junior High School1 Aceh Tamiang shows a tendency toward an evaluative-reflective pattern that positions the assessment process not merely as a control mechanism but as a means of continuous learning and improvement. The principal views evaluation as an integral part of the dynamic learning cycle, where each assessment finding serves as the basis for designing subsequent development strategies.

In practice, the principal conducts evaluations through dialogic academic supervision. Classroom observations are conducted through pre-observation, implementation, and post-observation stages. Each stage is designed to build teachers' reflective awareness of their own teaching practices. Following the observation, the principal engages in an open discussion with the teacher to discuss strengths, challenges, and improvement options. This approach makes evaluation not merely a tool for assessing performance, but also a vehicle for teacher professional growth.

The evaluation conducted at State Islamic Junior High School1 also reflects the spirit of data-driven learning , where assessment results, attendance, student portfolios, and parental feedback are used as analytical materials for curriculum improvement. However, while data forms the basis for decision-making, the communication patterns maintained are participatory and humanistic. Teachers are involved in every evaluation process through joint reflection forums or lesson study activities .

From the evaluation results, the madrasah principal was able to identify various improvements, such as increased student participation in the Pancasila and Rahmatan Lil 'Alamin (P5RA) Student Profile project , as well as strengthening a collaborative learning culture among teachers. However, there are still limitations in the aspect of technology utilization, especially in the use of the Learning Management System (LMS) comprehensively. The madrasah principal responded to this obstacle wisely through a coaching approach, rather than strict instructions. Thus, the evaluation model at State Islamic Junior High School1 emphasizes the transformative and empathetic side, where leadership plays a role in building collective awareness and responsibility for quality improvement.

The evaluation flow at State Islamic Junior High School1 Aceh Tamiang is as follows:

1. Collection of student and teacher performance data through portfolios, assessments, and observations.
2. Pre-observation supervision to understand the teacher's learning plan.
3. Direct class observation by the head or deputy head of the madrasah.
4. Post-observation discussion as a forum for shared reflection.
5. Teacher reflection forum (lesson study and internal MGMP).
6. Preparation of recommendations for improvement and training.
7. Implementation of follow-up and periodic monitoring.

Meanwhile, findings at State Islamic Junior High School2 Aceh Tamiang indicate a more systematic, measurable, and digital-based evaluation approach. The principal implements evaluation with a strong managerial approach, where every learning activity is monitored through an integrated online data system. Evaluation is conducted regularly and in a structured manner through learning outcome reports, attendance data, and assessment results uploaded to the digital madrasah platform.

The madrasah principal utilizes this digital data to monitor teacher performance and student progress. Each monitoring finding is used to develop a follow-up plan, such as internal training, strengthening technology literacy, and improving the online learning system. This evaluation pattern reflects a strategic, indicator-based leadership style , where every decision is based on measurable evidence and can be re-evaluated periodically.

Beyond the digital aspect, the evaluation implementation at State Islamic Junior High School2 also demonstrated a real effort to involve various stakeholders . The principal held regular coordination meetings involving the vice principal, the curriculum team, teachers, and even parents. The evaluation went beyond the preparation of administrative reports, but evolved into a collective forum to find solutions to various obstacles, such as limited internet access, digital device readiness, and varying teacher competencies in using learning technology.

Evaluation results indicate a positive impact on learning quality, including increased effectiveness of project-based assessments, increased variety of digital media used by teachers, and increased student motivation. However, the systems-oriented evaluation approach sometimes creates administrative pressure for some teachers, especially those unfamiliar with digital applications and dashboards. In this context, madrasah principals continue to strive to balance the demands of performance and emotional support for teachers, ensuring that the evaluation process remains supportive.

Thus, the evaluation model at State Islamic Junior High School2 can be described as a digital-based managerial-strategic evaluation, which prioritizes order, accountability, and efficiency, without ignoring the dimensions of coaching and collaboration. The flow of the Leadership Evaluation of the Principal of State Islamic Junior High School2 Aceh Tamiang in the Independent Curriculum which Integrates Digital Madrasah Innovation is as follows:

1. Automated data collection through LMS, digital assessments, and online attendance.
2. Analysis of learning achievement data and teacher performance indicators.
3. Scheduled supervision and observation with digital reporting.
4. Cross-field evaluation meeting (curriculum, ICT, student affairs).
5. Preparation of data-based recommendations and corrective actions.
6. Implementation of follow-up (training, procurement, innovation projects).

## 7. Monitoring of results and reporting to stakeholders.

Comparing the two sites, it appears that both State Islamic Junior High School1 and State Islamic Junior High School2 share the same evaluation goals : ensuring the sustainability of learning quality in the implementation of the Independent Curriculum and ensuring the effectiveness of digital madrasah innovations. However, their leadership direction and styles demonstrate two distinct characteristics.

**Table 3.** Cross-Site Analysis at the Evaluation Stage The Independent Curriculum Integrates Digital Madrasah Innovations

Evaluation Aspects	State Islamic Junior High School1 Aceh Tamiang	State Islamic Junior High School2 Aceh Tamiang	Cross-Site Analysis
General Approach to Evaluation	Reflective, humanistic, democratic; evaluation as a shared learning space.	Systemic, digital, structured; evaluation as data-based quality control.	State Islamic Junior High School1 emphasizes values and relationships; State Islamic Junior High School2 emphasizes accountability and systems.
Leadership Style in Evaluation	Democratic (Lewin); flexible (Fiedler); slightly transformational for personal development.	Directive-supportive (House); systemic (Senge); indicator-based.	State Islamic Junior High School1 is more cultural-relational; State Islamic Junior High School2 is more technical-strategic.
Evaluation Instruments and Mechanisms	Clinical observation, dialogic evaluation, portfolio, parent feedback, reflection forum/lesson study.	LMS, digital dashboard, automated reports, online attendance, cross-disciplinary meetings.	State Islamic Junior High School1 uses qualitative instruments; State Islamic Junior High School2 uses digital-quantitative instruments.
Measurement Focus	Quality of the learning process, teacher reflection, relevance of Islamic values in learning.	Teacher performance, student learning outcomes, effectiveness of using learning technology.	State Islamic Junior High School1 focuses on process; State Islamic Junior High School2 focuses on results and data.
Teacher Involvement	High teachers are active in post-observation discussions, lesson study, and internal MGMP.	High teachers are involved in digital data entry, evaluation meetings, and technology follow-up.	Different forms of participation: State Islamic Junior High School1 dialogic participation; State Islamic Junior High School2 administrative-digital participation.
Decision Making Basis	Based on collective discussion and Islamic values, evaluation is seen as <i>tazkiyah</i> (self-improvement).	Based on quantitative data and digital indicators; evaluation as an accountability mechanism.	Two evaluative approaches: values and reflection vs. data and indicators.
Evaluation Follow-up	Individual coaching, mentoring, pedagogical workshops, strengthening learning communities.	Digital training, digital device revision, LMS system improvement, ICT facility procurement.	State Islamic Junior High School1 emphasizes pedagogical development; State Islamic Junior High School2 emphasizes digital system development.
Main Obstacles	Teachers' digital literacy varies; infrastructure is not evenly distributed.	Digital administration pressure; device and network readiness.	Both face digital challenges, but in different forms.
Value Orientation and Culture	Humanistic, spiritual, communicative; evaluation based on morals and togetherness.	Efficiency, accountability, performance; evaluation based on targets and indicators.	State Islamic Junior High School1 is strong in culture; State Islamic Junior High School2 is strong in systems.
Overall Evaluation Character	Evaluation as professional dialogue and reflection.	Evaluation as a mechanism for quality	Two different but complementary evaluation

Evaluation Aspects	State Islamic Junior High School1 Aceh Tamiang	State Islamic Junior High School2 Aceh Tamiang	Cross-Site Analysis
	control and improvement systems.	patterns: cultural vs. systemic.	

State Islamic Junior High School1 excels in its cultural and reflective dimensions, where evaluation serves as a platform for shared learning. The principal acts as a mentor and facilitator, fostering teachers' reflection on their teaching practices. This model fosters a collegial atmosphere and a sense of ownership in the changes being made. In contrast, State Islamic Junior High School2 displays a more systemic and strategic dimension. The principal manages evaluations using a structured framework, using a digital system, and establishing clear achievement indicators. This pattern provides a consistent, transparent, and efficient work direction for measuring the success of curriculum implementation.

Thus, it can be concluded that State Islamic Junior High School1 emphasizes the transformational dimension, while State Islamic Junior High School2 emphasizes the technological and managerial dimensions. Both complement each other: State Islamic Junior High School1 strengthens the awareness of values and moral commitment of madrasah residents, while State Islamic Junior High School2 ensures the effective operation of work systems and digital innovations. When combined, the two form an ideal model for evaluating madrasah leadership in the digital era: a model that combines cultural reflection with data-driven management.

Descriptively and analytically, it can be concluded that the leadership evaluations of madrasah principals at State Islamic Junior High School1 and State Islamic Junior High School2 both reflect a commitment to improving the quality of education based on the Independent Curriculum, but with different characteristics and strategies. State Islamic Junior High School1 emphasizes a reflective, collaborative, and humanitarian-based approach; while State Islamic Junior High School2 emphasizes a systematic, digital, and data-driven approach. Both have successfully integrated digital madrasa innovation with the spirit of independent learning, proving that effective leadership is not only measured by evaluation results, but also by the madrasa principal's ability to build a living system, a system that learns from itself and continues to develop.

Theoretically, the evaluation phase of the implementation of the Merdeka Curriculum, which integrates digital madrasah innovations at State Islamic Junior High School1 and State Islamic Junior High School2 Aceh Tamiang, demonstrates two distinct yet equally powerful leadership approaches. State Islamic Junior High School1 displays a reflective, open, and dialogical evaluation character, while State Islamic Junior High School2 demonstrates a systemic, digital, and structured evaluation pattern. These two patterns align with theories of leadership and evaluation, particularly in behavioral theory, contingency theory, path-goal theory of leadership, system leadership theory, and the function of evaluation itself in Supervision and Control.

Within the framework of contingency theory Developed, leadership effectiveness is largely determined by the fit between leadership style and the situation at hand. This theory asserts that no single leadership style is most effective for all situations; leaders need to adapt their approach to the characteristics of the organization, the level of human resource readiness, the cultural context, and the technical conditions surrounding the institution. In the context of this research, the differences in evaluation styles at State Islamic Junior High School1 and State Islamic Junior High School2 are clear evidence of how madrasah principals apply the contingency principle by adjusting their evaluation approaches based on teacher readiness, digital infrastructure, and the work culture of each madrasah.

State Islamic Junior High School1, for example, exists in a context where teachers and parents' digital literacy is diverse, and a strong collegial culture has become the foundation of the organization. Therefore, the principal chose a dialogic, nurturing, and open evaluation approach a leadership style Fiedler believes is appropriate in situations where relationships are strong but task structures are still loose. This approach allows teachers to feel safe reflecting on their teaching practices, making evaluation a tool for professional development, rather than simply administrative oversight.

In contrast, State Islamic Junior High School2 operates in a context characterized by a well-developed digital infrastructure, a structured work culture, and indicator-based performance expectations. In such a situation, Contingency Theory predicts that a more directive, systemic, and data-driven leadership style will be more effective. The principal of State Islamic Junior High School2 implements an evaluation style consistent with these characteristics through the use of an LMS, an achievement dashboard, and an integrated digital monitoring system. This emphasizes that effective leadership styles do not have to be the same across institutions, but rather must be tailored to the demands of the situation and the capabilities of the organization.

Thus, the differences in evaluation patterns between State Islamic Junior High School1 and State Islamic Junior High School2 do not indicate a disparity in leadership quality, but rather demonstrate a mature application of the contingency principle. Madrasah principals adapt their evaluation styles to the level of digital readiness, teacher capabilities, and organizational culture at each madrasah. This reinforces Fiedler's assumption that leadership effectiveness depends on the fit between the leader's style and the situation at hand. Reflective evaluation at State Islamic Junior High School1 and systemic-digital evaluation at State Islamic Junior High

School2 are two equally appropriate forms of leadership because each aligns with the evolving organizational conditions, technological capacity, and academic culture.

The evaluation function itself in Supervision and Control This involves monitoring the implementation of activities and evaluating the results. The principal must be able to provide feedback and solutions to various problems that arise [46]. This shows that the principal carries out evaluation not only as an administrative obligation, but also as a professional learning mechanism that connects values, data, technology, and academic culture.

Evaluation at State Islamic Junior High School1 Aceh Tamiang shows a tendency towards a leadership style that aligns with the Theory of Behavioral Leadership, which is described as democratic leadership that emphasizes participation, two-way communication, and a supportive work environment. Findings indicate that the principal conducted evaluations through dialogic academic supervision, with pre-observation, observation, and post-observation stages, as well as open discussions with teachers regarding learning strengths and constraints. This evaluation pattern is a characteristic of democratic leadership, where teachers are treated as partners with the capacity to develop, rather than as objects of supervision. This approach aligns with the concept of “evaluating” in the leadership function described, where evaluation not only measures results, but also builds healthy working relationships that are responsive to teachers' needs.

The reflective evaluation of State Islamic Junior High School1 is also explained through Fiedler's Contingency Leadership Theory, which emphasizes that leadership effectiveness depends on the fit between leadership style and the conditions or characteristics of followers. At State Islamic Junior High School1, some teachers faced obstacles in utilizing LMS and digital technology. Instead of implementing strict performance-based evaluations, the principal adjusted his approach by providing coaching, mentoring, and space for reflection, so that the evaluation process did not cause pressure but encouraged collective improvement. This demonstrates the practice of contingency leadership, where leaders adjust their evaluative style to the level of readiness, competence, and needs of teachers as outlined in Fiedler's theory, which appears in the Situational Leadership section.

In addition to the contingency and behavioral approaches, the evaluation of State Islamic Junior High School1 demonstrates the integration of Islamic educational values. Values such as patience, exemplary behavior, deliberation, and gentleness, reflected in Surah Ali Imran, verse 159, appear to be internalized in the way the principal provides feedback with openness, empathy, and without cornering teachers. The evaluation is conducted not to judge, but as a tazkiyah (purification and improvement) of the learning process. The use of data such as student assessments, portfolios, and parental input in a joint reflection forum is also in line with the principles of meaningful evaluation in Islamic education, which prioritize moral accountability, honesty, and collective responsibility. Thus, the evaluation at State Islamic Junior High School1 demonstrates a blend of modern pedagogical approaches and Islamic ethics that strengthen the spiritual dimension of madrasah leadership. In contrast to State Islamic Junior High School1, the evaluation at State Islamic Junior High School2 Aceh Tamiang demonstrated a structured and highly strategic digital approach to data utilization. Field findings indicate that the principal managed the evaluation through the use of an LMS, digital attendance, integrated student achievement reports, and a learning indicator dashboard.

This evaluation pattern aligns with Senge's [41] System Leadership Theory, which positions educational institutions as systems comprising data flows, evaluation processes, coordination mechanisms, and continuous improvement. The evaluation system at State Islamic Junior High School2 reflects what Senge calls a “learning system,” a system that enables organizations to learn from data, measurably correct weaknesses, and strengthen performance through inter-unit interactions. This is evident in the cross-sectoral evaluation meetings involving the curriculum, ICT, student affairs, and teacher teams to periodically analyze achievement data and formulate joint follow-up actions.

Furthermore, State Islamic Junior High School2's evaluation approach aligns closely with House's Path–Goal Theory (p. 321, 1971), which emphasizes that leaders must clarify goals, provide pathways to achieve them, provide support, and remove obstacles. The principal of State Islamic Junior High School2 provides clear achievement indicators through a dashboard, provides digital training to address teacher competency barriers, and conducts regular monitoring to ensure learning objectives are achieved. This approach helps teachers understand performance expectations and how to achieve them, making evaluation not merely a control tool but a professional strengthening mechanism.

From a data-driven evaluation perspective, the State Islamic Junior High School2 evaluation pattern also closely aligns with Miles and Huberman's data analysis concepts, particularly in terms of data collection, data reduction, and evidence-based decision-making. State Islamic Junior High School2's digital evaluation allows data to be automatically collected through the LMS, analyzed through graphs and indicators, and then summarized in the form of structured follow-up actions such as internal training, digital system improvements, or the development of learning projects. In this context, the madrasah principal utilizes technology not only as a tool but also as a foundation for effective decision-making. This is reinforced by relevant research demonstrating

the effectiveness of digital evaluation systems in strengthening school accountability, as seen in Arifin's (2022) research.

Comparing the two sites, it appears that State Islamic Junior High School1 views evaluation as a space for dialogue, reflection, and moral growth, while State Islamic Junior High School2 views evaluation as a systemic mechanism to ensure data-driven learning performance. State Islamic Junior High School1 demonstrates a leadership model that relies on emotional closeness and deliberation, while State Islamic Junior High School2 demonstrates leadership that relies on digital instruments, indicators, and a structured work structure. Despite their different paradigms, both are consistent with the evaluation principles of the Independent Curriculum, which emphasize reflection, authentic assessment, and continuous improvement. In fact, both reflect two important aspects of madrasah leadership: State Islamic Junior High School1 emphasizes the values dimension, while State Islamic Junior High School2 emphasizes the systems dimension.

From the perspective of Islamic education evaluation, the combination of these two approaches demonstrates that the ideal madrasah evaluation combines hikmah (wisdom), rahmah (empathy), and hisab (accountability). State Islamic Junior High School1 emphasizes rahmah and hikmah, while State Islamic Junior High School2 emphasizes hisab in the sense of objective performance measurement. These two approaches are not in conflict, but rather variations in implementation stemming from differences in organizational culture, digital readiness, and leadership characteristics.

Thus, this discussion demonstrates that evaluating the implementation of the Independent Curriculum, which integrates digital madrasah innovations at State Islamic Junior High School1 and State Islamic Junior High School2, is not merely an administrative process, but a transformative one that combines modern leadership theory, a systems approach, Islamic values, and digital technology. The State Islamic Junior High School1 model demonstrates that humanistic and reflective evaluation can enhance teachers' professional awareness, while the State Islamic Junior High School2 model demonstrates that data-driven evaluation can enhance accountability and system effectiveness. When combined, these two approaches offer a picture of ideal evaluative leadership for madrasahs in the digital era.

### **3.4 The Impact of the Principal's Leadership Model and Digital Madrasah Innovation in the Independent Curriculum on the Learning Process at State Islamic Junior High School1 Aceh Tamiang and State Islamic Junior High School2 Aceh Tamiang**

The principal's leadership at State Islamic Junior High School1 is transformational and places a strong emphasis on teacher development, role modeling, and the integration of religious values into learning. Digital innovations have been gradually adopted, primarily for administration and some learning practices, with a strong emphasis on cultural development and human readiness. The most tangible impacts include increased teacher and student motivation, participation in literacy competitions, and ease of administrative services for young parents. However, there are limitations in equal access and differences in digital literacy among parents and teachers.

Leadership oriented by example and coaching transformed the work climate: evaluation became a development process (assessment for learning), not just an administrative assessment. The effects were seen in increased teacher initiative (selection of prospective facilitators, national teacher achievement) and increased student engagement (review competitions, OMI). However, this transformation was sensitive to technical capacity; digital was used as a supporting tool, not as the backbone. As a result, innovation had positive effects on motivational and pedagogical aspects, but had not yet fully overcome technical barriers (bandwidth, devices, variations in parental literacy). The findings suggest that cultural change preceded infrastructure modernization, an advantage for sustainability but also a limitation on the scale of digitalization.

Furthermore, the leadership at State Islamic Junior High School2 is visionary and managerial, with a strong push towards a Digital Madrasah: LMS, digital library, digital attendance, online PPDB (School Registration), and an implementation roadmap. Recorded impacts include increased student learning independence, a variety of learning media, assessment effectiveness, and madrasah achievements, including district-level awards. Challenges remain (e.g., device/bandwidth availability, administrative burden on teachers), but the managerial structure allows for data-driven responses and measurable interventions.

A leadership model that prioritizes digital systems has resulted in rapid and measurable changes in the learning process: teachers transitioned to facilitators of project-based learning (deep learning), students became accustomed to accessing online resources and creating digital products (videos, research projects), and the madrasah had a real-time monitoring mechanism. The strengths of this approach are scalability and accountability; its drawbacks are potential administrative pressure on under-prepared teachers and a reliance on infrastructure. In other words, State Islamic Junior High School2 accelerated the resolution of pedagogical issues through technology, but the sustainability of the transformation depends on consistent infrastructure investment and capacity-building programs.

**Table 4.** Cross-Site Analysis at the Evaluation Stage The Independent Curriculum Integrates Digital Madrasah Innovations

Impact Aspects	State Islamic Junior High School1 Aceh Tamiang	State Islamic Junior High School2 Aceh Tamiang	Cross-Site Analysis
Direction of Change	Cultural → Pedagogical	Systemic → Pedagogical	State Islamic Junior High School1 changes through culture; State Islamic Junior High School2 through digital systems.
Impact Focus	Teacher & student motivation, collaborative culture, literacy improvement	Learning independence, assessment effectiveness, media variation, madrasa achievement	Both improve the quality of learning, but in different ways.
Leadership Influence	Exemplary behavior, guidance, religious values	Visionary, managerial, data-driven	State Islamic Junior High School1 strengthens moral purpose; State Islamic Junior High School2 strengthens accountability.
Digital Roles	Limited support (administration, some learning)	The backbone of the learning system	The digitalization of State Islamic Junior High School2 is more mature and has a systemic impact.
Impact on Teachers	Initiative increases, motivation increases, achievement increases	Digital skills rise, project readiness improves	State Islamic Junior High School1 teachers are motivationally strong; State Islamic Junior High School2 teachers are technically-digital strong.
Impact on Students	Participation in competitions, reviews, literacy projects increased	Digital products, deep learning, research projects on the rise	State Islamic Junior High School1 excels in literacy; State Islamic Junior High School2 excels in digital creativity.
Obstacle	Digital literacy is not evenly distributed	Digital administrative burden	Two typical challenges of two different change models.
Impact Model	<i>Leadership that Inspires</i>	<i>Systems that Scale</i>	Two complementary approaches to the sustainability of the Independent Curriculum.

A cross-comparative analysis between the two sites revealed fundamental similarities: Both madrasas viewed the Independent Curriculum and digital innovation as opportunities to foster meaningful learning ( deep learning ) within the Independent Curriculum. Furthermore, both madrasas noted increased student motivation, project activity, and improved academic achievement following leadership interventions in digital learning .

A key difference is evident in the axis of change at State Islamic Junior High School1, from cultural to pedagogical (culture and teacher development gradually impacting digital learning), while at State Islamic Junior High School2, it shifts from systemic to pedagogical (infrastructure and LMS to pedagogical practices). The impact at State Islamic Junior High School1 is driven by human empowerment (motivation, role models), while at State Islamic Junior High School2, it is driven by tools and processes (LMS, dashboard, reporting).

The potential risk faced by State Islamic Junior High School1 is that the pace of digitalization will be hampered by infrastructure; while the potential risk faced by State Islamic Junior High School2 is the possibility of excessive administrative burdens for under-trained teachers. Furthermore, the theoretical and practical implications are: (MTsN1) Leadership that inspires. Inspirational leadership fosters a culture of performance, intrinsic teacher motivation, and a collective commitment to the vision of a digital madrasah. Meanwhile, MTsN2 has begun fostering in-depth learning that has a broad and sustainable impact. Systems that scale ensure that these good practices can be institutionalized through consistent procedures, workflows, and evaluation mechanisms, eliminating reliance on a single leader. The combination of these two approaches makes the implementation of the Independent Curriculum not only effective but also sustainable, measurable, and easily replicable .

Theoretically, the impact of madrasah principal leadership and digital madrasah innovation on the implementation of the Independent Curriculum at State Islamic Junior High School1 and State Islamic Junior High School2 Aceh Tamiang developed in different directions, although both resulted in increased student learning motivation, teacher pedagogical quality, and participation in various literacy competitions and Independent Curriculum projects. These impacts can be understood through theories of educational change, digital leadership, and school innovation that have been put forward by experts in the educational management literature.

The positive impact of transformational-humanistic leadership at State Islamic Junior High School1, as reflected in teacher development, role models, and the integration of religious values, aligns with Michael Fullan's idea of leadership for deep change, which emphasizes the formation of a learning culture before implementing structural innovation. Fullan states that sustainable change begins with moral purpose, namely the intrinsic motivation of teachers that is cultivated through inspiration, role models, and warm emotional relationships [40]. This is clearly seen in the finding that increased teacher initiatives for example, involvement in facilitator selection, participation in literacy competitions, and national achievements are rooted in the work culture built by the madrasah principal, not solely due to digital technology. The impact of State Islamic Junior High School1 can also be explained through Schein's theory [47]. On organizational culture, which emphasizes that lasting change arises from shifts in basic assumptions and shared values, not from structural changes. Therefore, State Islamic Junior High School1's success in terms of teacher motivation, collaborative spirit, and student involvement in literacy competitions is the result of a cultural transformation that was already mature before digitalization was expanded.

In a pedagogical context, the impact of State Islamic Junior High School1 is in line with Vygotsky's theory [48]. related to social constructivism. The role model of leaders, a collegial atmosphere, and coaching relationships influence teachers' zone of proximal development, encouraging them to progressively improve their teaching practices. However, limited digitalization and differences in technological literacy among teachers and parents mean that the impact of digital innovation is not as strong as its cultural impact. This aligns with Rogers' theory [49]. on the Diffusion of Innovations , which explains that technology-based innovation tends to move more slowly in contexts with gaps in technical competency and infrastructure. Therefore, the impact of State Islamic Junior High School1 is more visible in the "human quality" (motivation, relationships, performance culture) than in the "quality of digital systems."

On the other hand, the impact of State Islamic Junior High School2's visionary-managerial leadership with an emphasis on digital systems (LMS , digital library, digital attendance, online PPDB, and real-time monitoring mechanisms) depicts characteristics that are very close to Eric Sheninger's Digital Leadership theory [50]. According to Sheninger, digital leadership has a significant impact on increasing efficiency, transparency, and accountability. Findings indicate that digitalization at State Islamic Junior High School2 resulted in increased student learning independence, effective assessments, the use of varied learning media, and improved madrasah performance at the district level. This is consistent with Sheninger's research that technology integrated into school management systems accelerates pedagogical innovation, resulting in accelerated change that is difficult to achieve with a cultural approach alone.

The impact of State Islamic Junior High School2 can also be explained through Senge's Systems Theory [41], which emphasizes that schools as learning organizations will demonstrate improved performance when all subsystems (data, curriculum, learning, evaluation) are connected through digital mechanisms. State Islamic Junior High School2's digital system enables a rapid data-follow-up-monitoring cycle, allowing pedagogical changes such as the Merdeka Curriculum (P5RA)-based project, student digital media production, and the use of online resources to occur at a more measured pace [51]. This also aligns with Harris & Jones's theory, on collaborative school systems, which emphasizes the importance of data-informed decision-making to strengthen the impact of instructional leadership [52].

From the perspective of pedagogical change, the impact of State Islamic Junior High School2 shows progress in the aspect of deep learning , where students not only receive knowledge but also produce digital products (videos, research projects, scientific reports), a phenomenon that is in line with the concept of the 21st Century Learning Framework from the Partnership for 21st Century Skills. According to P21, digital creativity ,

collaboration, and problem solving are indicators of the positive impact of digital learning. State Islamic Junior High School2 shows these changes clearly, even though it still faces challenges such as limited devices and digital administrative burdens for teachers who are less accustomed.

Comparing the two sites, it appears that the impact of leadership and digital innovation at State Islamic Junior High School1 moves from “cultural to pedagogical,” where the transformation of values, motivation, role models, and coaching results in gradual and natural pedagogical change. Meanwhile, the impact at State Islamic Junior High School2 moves from “systemic to pedagogical,” where technology, LMS , and digital management become catalysts for learning change. This pattern is consistent with Kotter's theory of organizational change. Distinguishes between culture-based change (change through people) and system-based change (change through structure). State Islamic Junior High School1 relies on change through human resources, while State Islamic Junior High School2 relies on change through infrastructure and digital work systems.

Both impact patterns carry their own risks. State Islamic Junior High School1 is at risk of experiencing a digitalization slowdown due to cultural dependence and infrastructure limitations, a phenomenon consistent with Rogers [49] findings on barriers to innovation adoption in organizations with uneven technical capacity. Meanwhile, State Islamic Junior High School2 is at risk of experiencing administrative overload among teachers, as warned in Selwyn's research stated that digitalizing schools without adequate resources can lead to psychological stress and additional burdens. However, overall, both showed positive impacts on learning, achievement, and the madrasah's digital ecosystem [53].

Ultimately, the combination of these two approaches demonstrates that the implementation of the Independent Curriculum will have a strong impact when combining leadership that inspires (State Islamic Junior High School1) and systems that scale (State Islamic Junior High School2). State Islamic Junior High School1 produces a cultural-pedagogical impact; State Islamic Junior High School2 produces a systemic-pedagogical impact. The two complement each other and offer a model for change that can be replicated by other madrasahs.

#### 4. CONCLUSION

The principals of State Islamic Junior High School 1 and State Islamic Junior High School 2 Aceh Tamiang demonstrated a visionary, participatory, and adaptive leadership style towards national education policies, particularly in the planning stage of the Independent Curriculum which is integrated with the Digital Madrasah innovation. At this stage, the two madrasah principals act as the main drivers who are able to direct all madrasah members to compile Madrasah Operational Components (KOM) contextually and in line with the vision, mission, and characteristics of each madrasah. At State Islamic Junior High School 1 Aceh Tamiang, planning focused on building a digital foundation through the creation of an official madrasah website, the implementation of the e- PPDB system , e- Raport , and the SIUMAT application , as well as strengthening the Integrity Zone value as part of the madrasah governance based on transparency and accountability. Meanwhile, at State Islamic Junior High School 2 Aceh Tamiang, the madrasah principal emphasized transformative leadership by involving teachers, staff, students, parents, and alumni in designing the Digital Class innovation as a concrete form of technology integration with the curriculum. The implementation of the Independent Curriculum in both madrasas demonstrates the transformational and collaborative leadership of the principals. They act as role models, motivators, and facilitators, encouraging a shift in the learning culture toward more independent, creative, and innovative learning.a. Evaluations conducted by madrasah principals at both research locations confirmed a commitment to the principles of accountability and continuous quality improvement. The evaluations were conducted through internal monitoring mechanisms, academic supervision, reflection meetings, and digital-based data analysis to measure the achievement of learning objectives and the effectiveness of curriculum implementation. The following limitations were identified: Time Limitations, Capacity and Scope Limitations, Object and Context Limitations, and Digital Data and Documentation Limitations. Based on the results and discussion in this study, research novelty was identified from each of the findings, namely: This study formulates a new model in the form of a cultural-pedagogical versus systemic-pedagogical change pathway, as well as a hybrid reflective-digital evaluation model, which collectively form the Contextualized Digital-Merdeka Leadership framework as a significant theoretical and practical contribution previously undiscovered in madrasah leadership studies in Indonesia. The implications of this study confirm that the successful implementation of the Merdeka Curriculum in madrasahs is highly dependent on the quality of the madrasah principal's leadership in managing digital transformation. Ideal leadership not only understands regulations but also inspires change, mobilizes participation, and maintains spiritual values in every innovation. Thus, the results of this study provide an important contribution to the development of modern Islamic educational leadership theory and provide an empirical basis for policies to strengthen the digital capacity of madrasah principals in the future.

**ACKNOWLEDGEMENTS**

Prof. Dr. Amiruddin Siahaan, M.Pd and Prof. Dr. Mardianto, M.Pd as the first and second supervisors who have spent a lot of time in directing, motivating and giving advice and direction to the author in completing this dissertation. Especially to my beloved husband H. Awaluddin Kholid, S.Ag., M.Pd who very sincerely gave his prayers and blessings and all my children, brother Dio Alfany, sister Nada Nazhifah, and sister Sofia Ulayya Kholid, who have always been the encouragement and motivation for the author to continue praying and be enthusiastic in completing this study.

**AUTHOR CONTRIBUTIONS**

Conceptualization, A.S.; Methodology, A.S. and A.Si.; Validation, A.S., A.Si., and M.; Formal Analysis, A.S.; Investigation, A.S.; Resources, A.Si. and M.; Data Curation, A.S.; Writing Original Draft Preparation, A.S.; Writing Review & Editing, A.Si. and M.; Visualization, A.S.; Supervision, A.Si. and M.; Project Administration, A.S.

**CONFLICTS OF INTEREST**

The author(s) declare no conflict of interest.

**USE OF ARTIFICIAL INTELLIGENCE (AI)-ASSISTED TECHNOLOGY**

The authors declare that no artificial intelligence (AI) tools were used in the generation, analysis, or writing of this manuscript. All aspects of the research, including data collection, interpretation, and manuscript preparation, were carried out entirely by the authors without the assistance of AI-based technologies.

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