

## DIGITAL INSTRUCTIONAL LEADERSHIP STRATEGIES OF SCHOOL PRINCIPALS IN STRENGTHENING THE QUALITY OF ISLAMIC EDUCATION IN ELEMENTARY SCHOOLS

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### Abstract

Digital transformation in Islamic education requires school principals to exercise instructional leadership that combines technological skills with Qur'anic values. To clarify the research context, this study was conducted at Salman Al-Farisy Integrated Islamic Elementary School (SDIT) as an institution that has comprehensively implemented educational digitalization. This study aims to analyze the principal's digital instructional leadership strategies in strengthening the quality of Islamic education in elementary schools. Islam-based terms such as pedagogical tazkiyah and Qur'anic values in this study are operationalized as a process of internalizing digital ethics and manners that are systematically integrated into digital learning. Using a qualitative approach with a case study design, data were collected through in-depth interviews, participatory observation, and documentation, then analyzed using Miles and Huberman's interactive model. To clarify the triangulation process, this study compared data from principal interviews, digital classroom observation notes, and platform-based instructional supervision documents. The results of the study show three main strategies: (1) strengthening teacher competence through Islamic value-based digital literacy; (2) optimizing learning technology that integrates Qur'anic content and evidence-based digital instructional supervision; and (3) strengthening digital collaboration between teachers, students, and parents through school communication platforms. These findings expand the theories of Islamic Pedagogical Leadership and Professional Digital Competence by introducing the concept of spiritual digital instructional leadership, which is leadership that places technology as a means of internalizing values and pedagogical tazkiyah. This study confirms that the success of the digitization of Islamic education depends on the principal's ability to create a harmonious integration between technology, pedagogy, and spirituality. As an implication, this study offers recommendations for Islamic schools to develop religious digital literacy and a digital evidence-based instructional supervision system.

**Keywords:** Instructional Leadership; Digital Leadership; Principals; Quality of Islamic Education; Elementary Schools.

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### A. Introduction

Global advances in digital technology have influenced the paradigm of educational leadership, requiring school principals to have the ability to integrate technology with humanistic pedagogical practices (Schmitz et al., 2023; AlAjmi, 2022; Schmitz et al., 2025). In ASEAN countries, including Indonesia, the digitization of education is developing rapidly, but the digital literacy readiness of teachers and school leaders still varies, creating

implementation gaps (McCarthy et al., 2023; Mustafa et al., 2024). This global context is an important foundation for understanding the new demands on instructional leadership in Islamic elementary schools (Jameson et al., 2022; Bellibas et al., 2016).

In essence, school principals do not only function as administrative managers who manage human resources and infrastructure, but also as instructional leaders who direct and guide teachers in the learning process (Navaridas-Nalda et al., 2020; Kafa, 2025). Instructional leadership emphasizes the principal's responsibility in ensuring effective, meaningful learning that is oriented towards improving the academic quality of students (Tømte, 2024). In the context of Islamic education, instructional leadership must also be able to instill Islamic values such as trustworthiness, honesty, responsibility, and justice in every educational process (Uzorka & Kalabuki, 2025; Maisyaroh et al., 2024). Thus, the context of Islamic education presents a specific need to integrate an Islamic vision with digital skills (Obied, 2025).

Several studies in ASEAN and Indonesia have highlighted the role of digital leadership, but most still focus on managerial aspects and have not conceptually combined the dimensions of religiosity with technology. Previous studies also tend to discuss transformational or spiritual leadership without linking it to the demands of digitalization (Nguyễn et al., 2018). Meanwhile, research by (Albert et al., 2025) indicates that the integration of Islamic values in the leadership style of school principals can strengthen the religious culture in the school environment. However, most of these studies still highlight principal leadership in a traditional context, such as transformational, democratic, or spiritual leadership, without linking it to the digital dimension, which is now an urgent need in the world of education. This gap is the research gap, as there have not been many studies examining how principals act as Islamic value-based digital instructional leaders.

In recent years, the digitization of education has become a major focus in school quality development (Hsieh et al., 2025). Changes in technology-based curricula, the implementation of online learning, and digital school management require school principals to have strong digital leadership skills. Research conducted by (Chen & Yin, 2025; Aydın et al., 2025) states that digital leadership is effective when it combines technological skills with a humanistic vision of learning. However, in the context of Islamic education in Indonesia, the implementation of digital leadership still faces obstacles such as limited digital literacy among teachers, a lack of technology-based training, and resistance to changes in a digitally-oriented work culture (Kaya-Kasikci et al., 2023).

Most of the literature focuses only on improving the quality of Islamic education through managerial and spiritual approaches, but there has been little discussion of how principals can act as digital instructional leaders who balance technological demands and Islamic values (Chua & Chua, 2017; Dasruth et al., 2024). In fact, the ability of school principals to bridge the gap between Islamic vision and digital transformation is crucial to the sustainability of Islamic education quality at the elementary level. Thus, in-depth studies are still needed to highlight the role of school principals' digital instructional leadership in strengthening Islamic education quality in a systematic and contextual manner.

The novelty of this research lies in its attempt to conceptualize a model of digital instructional leadership based on Islamic values. This approach not only examines the role of the principal as a technology user but also as a pedagogical guide who builds a learning culture based on spiritual values. In the context of Islamic elementary schools, digital instructional leadership serves to guide teachers in designing learning that utilizes technology as a means of strengthening Islamic values, not merely as a medium for delivering material. Thus, the principal acts as a catalyst for transformation, ensuring that digital innovation does not distance education from moral and religious values but rather becomes a means of strengthening them.

The purpose of this study is to analyze the principal's digital instructional leadership strategies in strengthening the quality of Islamic education and to identify its contribution to the educational leadership literature. The contribution of this study compared to similar studies in the ASEAN region lies in its integrative focus on digital literacy, digital pedagogy, and spiritual formation in the context of Islamic elementary schools.

As a theoretical framework, this study uses a conceptual relationship model: digital literacy → digital pedagogy → spiritual formation, which shows that digital competence is the foundation for meaningful digital learning practices aimed at spiritual goals. This model is part of the novelty of this study because it introduces the concept of Islamic value-based digital instructional leadership as a conceptual model relevant to the era of technological disruption.

Practically, this study provides guidance for principals and teachers to develop religious digital literacy and digital instructional strategies that harmonize technology and Islamic values, so that Islamic education can remain adaptive, superior, and sustainable in the digital era.

## B. Method

This study uses a qualitative approach with a case study design that aims to describe in depth the principal's digital instructional leadership strategies in strengthening the quality of Islamic education (Moleong, 2019). This approach was chosen because it is suitable for understanding the phenomenon of leadership holistically and contextually in an Islamic educational environment. The research was conducted at Salman Al-Farisy Integrated Islamic Elementary School (SDIT), which is known as an Islamic values-based educational institution and has implemented a digital system in its management and learning. This location was chosen *purposively* because it is relevant to the research focus, which emphasizes the integration of instructional leadership and the application of educational technology. In addition, this school has strong PAI competency standards, enabling researchers to evaluate how religious aspects are integrated in a digital context.

The research subjects consisted of 1 principal, 1 vice principal, 6 classroom teachers, 2 Islamic Education teachers, and 2 educational staff, who were directly involved in the implementation of the school digitization policy. Informants were selected using purposive sampling techniques, taking into account their competence and experience as well as their

involvement in Islamic education quality improvement. The selection criteria for Islamic Education teachers also considered their ability to integrate Qur'anic values, Islamic digital ethics, and the use of spiritually-based digital learning media. Data were collected through in-depth interviews, participatory observation, and documentation study (M. Djunaidi Ghony and Fauzan Almansur, 2019). The interview guidelines were compiled based on three main themes: (1) digital instructional leadership strategies, (2) integration of Islamic values in digital practices, and (3) challenges and supporting factors for implementation. Semi-structured interviews were conducted to gain an understanding of leadership strategies and teacher training, while observations were used to observe leadership practices in the field. Documentation was obtained from school documents such as work programs, digitization guidelines, and learning activity archives.

Data analysis was conducted interactively with reference to the Miles and Huberman model, which includes three stages: data reduction, data presentation, and conclusion drawing (Miles, 2014). The research was conducted in four phases: (1) field orientation and initial observation, (2) intensive data collection, (3) data analysis during the collection process, and (4) validation and finalization of findings. In the analysis process, the researcher conducted a digital spiritual analysis, which examined how Islamic values (morals, digital etiquette, and pedagogical tazkiyah) were integrated with digital practices through thematic coding of interview, observation, and documentation data.

To maintain data validity, this study used source and technique triangulation, which involved comparing interview results from various informants and combining interview, observation, and documentation data (Sugiyono, 2019). Research ethics were carried out through written consent from all informants, official permission from SDIT Salman Al-Farisy, and assurance of the confidentiality of informant identities, which were disguised throughout the research report.

With this approach, the study is expected to provide a comprehensive picture of how the principal at SDIT Salman Al-Farisy implements Islamic value-based digital instructional leadership in building a culture of Islamic educational quality.

### **C. Findings and Discussion**

#### **Digital Instructional Leadership as a Driver of Islamic Education Quality Culture**

The results of the study show that the principal of SDIT Salman Al-Farisy plays a central role in building a technology-based Islamic education quality culture. He acts not only as a manager but also as an instructional leader who directs teachers to integrate technology with Qur'anic values. The principal sets the direction for digital policy through teacher training, the integration of digital devices in learning, and the strengthening of collaboration based on the school's digital platform.

To reinforce the findings, this study adds direct quotes from informants, for example, a teacher stated: "Qur'anic digital training helps us combine thematic verses with digital media, making learning more spiritually meaningful."

The following table presents a summary of field findings based on interviews, observations, and documentation.

**Table 1. Field Findings Based on Interviews, Observations, and Documentation**

Leadership Aspects	Field Findings (Summary)	Data Source
Digital leadership vision	The principal established a "Digital Qur'ani" vision that combines technological skills and Islamic values	Principal Interviews, Vision-Mission Documents
Teacher Training	Islamic values-based digital literacy training is conducted every semester for all teachers	Observation & Documentation
Learning Supervision	The principal monitors learning through digital platforms (Google Classroom, Canva Edu, Qur'an Apps)	Teacher Interviews, Observation
Digital collaboration	Teacher-parent communication through the school app "Salman Connect" for student progress reports	School Documentation
Spiritual values	All digital activities accompanied by reflections on Islamic values (prayers, thematic verses, and moral messages)	Classroom Observation & Learning Documents

The findings in the table above show that digitization at SDIT Salman Al-Farisy is not only oriented towards technical efficiency, but also aimed at strengthening the character and spiritual awareness of the entire school community.

### **Strengthening Teacher Competence in Islamic Values-Based Digital Literacy**

Strengthening teacher competencies in digital literacy is one of the main focuses of digital instructional leadership at SDIT Salman Al-Farisy. Based on field findings, the principal consistently designs internal training programs that are formulated to improve teachers' technopedagogical capabilities while building spiritual awareness in the use of technology. Training such as *Digital Learning Qur'ani* not only teaches teachers to operate digital devices, but also encourages them to produce Islamic value-based learning content, for example by inserting thematic verses, moral messages, and principles of media etiquette into each material presented. As a technical addition, teachers design digital content through the following steps: (1) selecting thematic verses, (2) adding moral messages, (3) packaging them in Canva or Google Slide videos, (4) uploading them through the school's LMS. Teachers stated that this approach made them more confident in combining technology with Islamic pedagogy.

Theoretically, this leadership strategy is consistent with the concept of *Islamic Pedagogical Leadership* proposed by Lin (2025). This theory emphasizes the importance of combining faith and 21st-century professionalism in educational leadership. However, the results of this study show more operational developments than the theory. While the theory focuses on the conceptual integration of technology, the practice at SDIT Salman Al-Farisy shows a much more contextual application, where digital literacy is not only interpreted as mastery of technology, but also as a medium for da'wah and character building for students.

In this context, the principal does not merely build the technical competence of teachers, but also fosters digital moral awareness based on Qur'anic values.

A comparison with the *Professional Digital Competence* (PDC) (Zulmi et al., 2024) framework also shows important differences. The PDC framework covers the universal dimensions of technical, pedagogical, legal, and digital ethics. However, at SDIT Salman Al-Farisy, digital ethics is interpreted from the perspective of sharia and akhlakul karimah, such as *amanah*, *iffah*, *sidq*, and moral responsibility. Thus, what is developed is not merely professional digital competence, but spiritual digital literacy, which makes technology a medium for internalizing Islamic values. This approach broadens the scope of PDC theory by adding a religious dimension specific to the context of Islamic education, resulting in a distinctive and holistic form of digital competence.

When linked to the concept of *Transformational Leadership for Technology Integration* (Gherbi, 2025), principals at SDIT show a similar pattern in terms of empowering teachers through motivation, exemplary behavior, and intensive mentoring. However, the transformation that occurs has a strong spiritual character. Teachers are not only motivated to become digital innovators, but also guided to become ethical educators who are able to maintain moral integrity in the use of technology. This transformation shows that technology is not merely a teaching tool, but a medium of *tazkiyah* that helps teachers instill spiritual values in students through creative and contextual means.

An in-depth analysis of practices in the field shows that strengthening teacher competencies based on Islamic values has significant strategic implications. *First*, this approach strengthens the Islamic pedagogical identity of teachers. They not only appear as technology facilitators but also as role models in digital etiquette for students. *Second*, technology is recontextualized as a means of purifying values (*tazkiyatun nafs*), not just as a medium for transferring knowledge. Teachers utilize technology to convey moral messages that are more profound and easily accepted by students, especially in audiovisual formats. *Third*, this training encourages the formation of a new professional culture that combines digital innovation with spiritual commitment. This culture differs from public schools, which tend to place digital innovation pragmatically without an explicit religious value foundation.

Thus, the strengthening of teacher competencies in this study shows that there is a digital literacy model that is not only technically competent but also spiritually oriented. This model offers a conceptual innovation in the form of Islamic digital literacy that is *spiritually pedagogical*, namely literacy that integrates the values of faith, manners, and ethics in the use of technology. This emphasizes that the success of learning digitization in Islamic schools is not solely determined by the ownership of devices and technical capabilities, but by the principal's ability to build digital moral awareness that is sourced from Islamic values and manifested in the pedagogical practices of teachers.

### **Optimizing Technology for Effective and Spiritual Learning**

The optimization of technology in the learning process at SDIT Salman Al-Farisy shows that digitization is not only understood as an effort to increase efficiency but also as a means of strengthening the spirituality of students. This study adds technical details, for

example, teachers use "Qur'an Apps" to display verses and interpretations, while Canva is used to create digital content with a moral theme.

The principal conducts digital supervision through:

1. Checking teachers' uploads on Google Classroom,
2. Evaluating the suitability of digital content with the Digital Qur'ani vision,
3. Providing feedback through the comment feature on the LMS or academic WhatsApp group.

Field observations show that teachers have utilized various digital tools to enrich students' learning experiences, ranging from Islamic-themed educational videos, interactive moral-based simulations, to the use of a simple Learning Management System to upload assignments, daily reflections, and thematic materials. The principal monitors this entire process through weekly digital reports sent by teachers, while also providing feedback to ensure that the use of technology remains in line with the school's "Digital Qur'ani" vision.

The use of technology in learning is not done mechanically. Teachers consciously integrate moral messages into each piece of digital content. For example, educational videos not only explain academic concepts, but also include messages of morality such as honesty, discipline, and gratitude. Daily reflections conducted through the application also do not only ask students to answer cognitive questions, but also invite them to reflect on behaviors and spiritual attitudes relevant to the day's material. This practice shows that technology is not positioned as a neutral medium, but as an instrument for the internalization of values that are creatively processed by teachers.

When compared to the Blended Islamic Learning Model (Cattaneo et al., 2025), the learning strategy at SDIT Salman Al-Farisy shows similarities in the use of a combination of digital learning resources and Islamic values as the core of its curriculum. However, this study shows a more integrative development compared to the model. Blended Islamic Learning focuses more on the conceptual integration of online platforms with Islamic values, while the practice at SDIT adds the dimension of continuous digital evaluation and supervision by the principal. Thus, the optimization of technology does not only occur at the teacher or student level, but becomes a pedagogical culture embedded in the school system as a whole.

In addition, these findings also provide new insights into the concept of instructional digital supervision, where the principal supervises learning practices not only through conventional classroom visits but also through digital recordings. This type of supervision process provides flexibility for principals to monitor the quality of materials, evaluate the suitability of digital content with Islamic values, and ensure the effectiveness of online and offline learning. This approach shows the transformation of the principal's role from a traditional supervisor to a digital pedagogical supervisor who is capable of providing evidence-based instructional guidance (Sahertian & Jawas, 2021).

On the other hand, when linked to traditional instructional leadership theory, a fundamental difference can be seen in how principals expand their influence. In the classic instructional model, teacher coaching is limited to direct guidance through face-to-face

meetings and classroom observation. However, in this digital context, principals can monitor learning activities more systematically and continuously through digital platforms. This allows for more intensive pedagogical coaching, while also providing space for teachers to adapt and continue to improve their creativity in utilizing technology. Thus, technology does not eliminate the spiritual and humanistic role of the principal, but rather expands the space for instructional interaction more effectively.

An in-depth analysis of field data also shows that technology optimization serves as a bridge connecting learning effectiveness with spirituality. Technology helps teachers deliver material in a more interesting and understandable way, while facilitating learning experiences that touch on the affective and moral domains of students. The use of daily reflection applications, for example, is an important tool for accustoming students to self-reflection, a character education practice that has been difficult to do consistently without technological support. This shows that technology is capable of expanding the space for internalizing values, not only in the form of texts and lectures, but through interactive activities that are in line with the character of the digital generation.

Thus, the optimization of technology in learning at SDIT Salman Al-Farisy is not only oriented towards improving instructional quality, but also towards deepening the spirituality of students (Khusnadin & Shihab, 2025). Technology is positioned as a medium for pedagogical tazkiyah, namely a means to purify values, refine morals, and strengthen spiritual intelligence through the modern learning process. This integration model emphasizes that digitization in Islamic education can be harmoniously combined with Qur'anic values and even become an important means of expanding the scope of internalization of these values in a more contextual and relevant form in line with the times.

### **Digital Collaboration in Building a Religious and Innovative Learning Ecosystem**

The principal fosters digital collaboration through the "*Salman Connect*" application, which connects teachers, students, and parents. This application serves as a platform for communication, student progress reports, and sharing daily Islamic messages. Documentation data shows that parent participation increased to 85% after the digital system was implemented.

Analysis shows that this strategy reflects the principle of *distributed leadership* (Matuschek & Hackenberg, 2025), where leadership is spread among various mutually supportive parties. However, what is unique about SDIT Salman Al-Farisy is the integration of the values of *ukhuwah* and *amanah* in digital collaborative practices, resulting in a learning ecosystem that is both religious and innovative. Overall, the results of this study indicate that the digital instructional leadership of the principal at SDIT Salman Al-Farisy is an effective leadership model for improving the quality of Islamic education in the era of digital transformation. Through strengthening teacher competencies, optimizing spiritually-oriented technology, and digital collaboration based on Islamic values, the principal has succeeded in building an integrative culture of quality between academics and spirituality. This research provides new theoretical contributions to the development of the concept of spiritual-digital leadership in the Islamic elementary education environment.

Based on the analysis and synthesis of field data, a conceptual model of digital instructional leadership based on Islamic values was formed, as shown in Figure 1. This model shows the relationship between the principal's leadership, digital strategies, and the formation of a sustainable Islamic education quality culture.

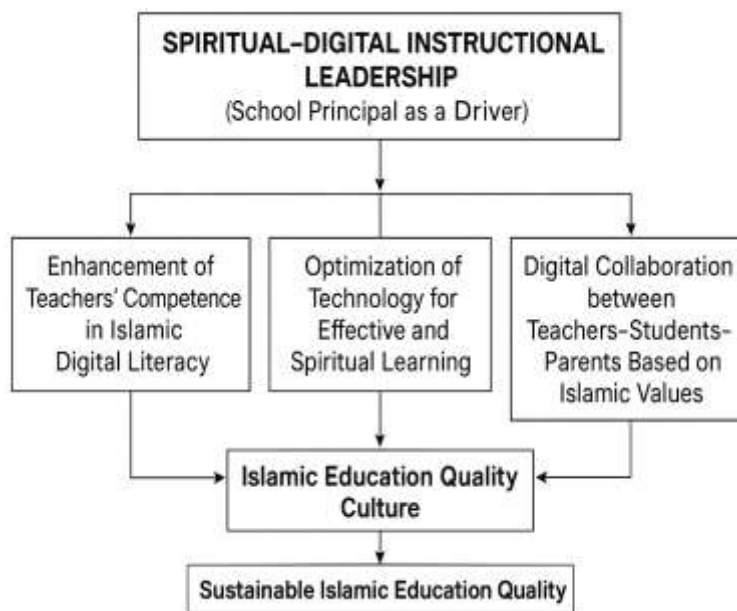


Figure 1. Conceptual Model of Islamic Value-Based Digital Instructional Leadership at SDIT Salman Al-Farisy

Overall, the research results show that the principal's digital instructional leadership acts as the main driver of change through three core steps:

1. Guided Islamic digital literacy,
2. Utilization of technology as a medium for tazkiyah,
3. Digital collaboration based on ukhuwah.

This approach confirms the emergence of a spiritual digital instructional leadership model, namely leadership that harmoniously combines Qur'anic morals with digital transformation.

#### D. Conclusion

This study confirms that the digital instructional leadership of school principals has a strategic role in strengthening the quality of Islamic education at the elementary school level. The conclusion focuses on three key findings, namely strengthening teacher digital literacy based on Islamic values, optimizing technology that supports learning effectiveness and spirituality, and digital collaboration between teachers, students, and parents in building a religious and innovative learning environment.

Theoretically, this study broadens the perspective of instructional leadership by incorporating the dimension of digital spirituality as an integral element in Islamic educational leadership. Practically, the results of this study provide guidance for principals

and policy makers to design technology-based quality improvement strategies that are in line with Islamic values.

The research recommendations emphasize the importance of digital leadership training for principals and teachers that combines technological competence and Islamic ethics. Schools also need to develop a quality evaluation system that covers academic, moral, and spiritual aspects. The limitation of this research lies in its single location, which only involved one school, so the generalization of the findings needs to be done carefully. Further research is recommended to involve more educational institutions and use quantitative or mixed methods approaches to enrich the findings.

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