

Early Childhood Education Leadership Grounded in Wetland Ecology: A Contextual Environment-Based Approach

¹Maimunah*, ¹Aslamiah

Corresponding Author: *maimunah@ulm.ac.id

¹ Universitas Lambung Mangkurat, Banjarmasin, Indonesia

ARTICLE INFO

Article history

Received 27 December 2025

Revised 25 January 2026

Accepted 29 March 2026

ABSTRACT

Principals' adaptive leadership within local ecological contexts remains an underexplored area in early childhood education (ECE) literature, particularly in regions characterized by distinctive ecosystems such as wetlands. This study aims to examine adaptive leadership practices in an Islamic ECE institution situated within the wetland ecosystem of South Kalimantan, Indonesia. Employing a qualitative approach with a single case study design, data were collected through participatory observation, in-depth interviews with the school principal, teachers, and parents, and document analysis. Inductive thematic analysis was applied, with validation conducted through source triangulation and member checking. The findings reveal three principal dimensions of adaptive leadership: first, the formulation of an institutionally religious and contextually grounded vision aligned with the wetland ecosystem; second, curriculum integration through consistent habituation strategies embedding Islamic and ecological values within daily learning activities; and third, the development of participatory community partnerships among the school, parents, and surrounding community. These three dimensions are demonstrably mutually reinforcing, collectively shaping a school culture that is religious in character, ecologically sensitive, and adaptively responsive. Theoretically, these findings extend Heifetz's adaptive leadership framework by incorporating a spiritual-ecological dimension, and enrich place-based education theory within the context of Islamic educational institutions. Practically, this study underscores the importance of designing leadership capacity-building programs that are responsive to ecological contexts and locally grounded religious values.

Keywords

Adaptive Leadership
Early Childhood Education
Place-Based Education
Wetland Ecosystem

This is an open-access article under the [CC-BY-SA](#) license.



Introduction

Early childhood education (ECE) serves as a critical foundation for cultivating character and environmental awareness from an early age. In ecologically complex regions such as wetlands, an environmentally responsive educational approach becomes particularly crucial. Banjarmasin, as a city surrounded by tropical wetland ecosystems, presents both challenges and opportunities in developing adaptive and contextually grounded educational models. One institution that has demonstrated success in integrating these values is an Islamic ECE school located within the wetland ecosystem of South Kalimantan. This institution exhibits leadership characteristics that extend beyond administrative governance, actively constructing a school culture aligned with its surrounding socio-ecological conditions.

Prior studies have established that school leadership exerts a significant influence on shaping the learning climate and the values internalized by students [1]–[2]. To date, several investigations into wetland environmental contexts have focused predominantly on learning outcomes, science literacy, the utilization of wetland environments as learning resources, and the development of instructional materials [3]–[5]. Maulita It can be concluded that existing research remains centered on student learning outcomes rather than on leadership processes and institutional adaptation. Community participation within the framework of adaptive leadership in wetland environmental contexts remains insufficiently examined in the literature. Within the ECE context, the principal's role is highly determinative of institutional direction, particularly with respect to character-based, environment-based, and spirituality-based learning [6]–[8]. Adaptive leadership is defined as the capacity to read the dynamics of environmental change, respond flexibly, and empower the school community to navigate complex challenges [9]–[10]. This concept is highly relevant to Banjarmasin's geographical conditions, which are vulnerable to ecological disruptions such as flooding, land subsidence, and wetland conversion, all of which demand an educational approach responsive to sustainability imperatives.

Islamic ECE institutions demonstrate the capacity to address these challenges through the integration of Islamic values with ecopedagogical practices, that is, learning approaches that position the environment as an integral component of the educational process. The learning model developed within such institutions not only fosters ecological awareness among young children but also strengthens their connection to local and spiritual values consonant with environmental stewardship. This aligns with findings in contemporary

literature suggesting that environment-based education in wetland contexts can enhance children's ecological literacy and promote sustainable behavioral patterns [11]–[12].

Within the Islamic educational framework, the integration of *tawhid* (monotheism), *amanah* (trustworthiness), and *rahmatan lil 'alamin* (mercy for all creation) with environmental education further reinforces the legitimacy of green education programs at the ECE level. This strategy positions the school principal's leadership as the central actor in constructing an organizational culture that is not only disciplined and structured, but also reflective of sustainability values [13]. In Islamic ECE, adaptive leadership is manifested through school initiatives to design water- and wetland-based contextual curricula, create nature-based learning spaces, and engage parents and the broader community in elementary conservation projects.

Nevertheless, limited research has thoroughly examined adaptive leadership practices in high-performing ECE institutions situated within specific geographical contexts such as wetlands. Yet empirical evidence suggests that the local cultural-ecological context significantly influences principals' leadership styles, the strategies they employ, and the values they cultivate in their students [14]. Therefore, this study aims to address this gap by qualitatively examining how adaptive leadership practices in Islamic ECE institutions shape an environmentally responsive, spiritually grounded school culture rooted in the local ecosystem. The findings of this study are expected to enrich the educational leadership literature within distinctive geographical contexts and contribute meaningfully to the development of environment- and character-based ECE policy in Indonesia.

Material and Methods

This study employed a qualitative approach with a case study research design. This approach was selected to develop a deep understanding of adaptive leadership practices in an Islamic ECE institution situated within the wetland ecosystem of Banjarmasin. The name of the institution has been anonymized to preserve institutional confidentiality and is hereafter referred to as "*Islamic ECE*." An intrinsic case study design was adopted, as the research focus was directed toward the unique characteristics and contextual strengths of a single institution of primary research interest [15].

Data were collected through three primary techniques: in-depth interviews, observation, and document review. Informant selection was determined by classifying participants according to the research focus. Key informants comprised the school principal, teachers, and parents. Observations were conducted during routine school activities related to school programs and curriculum integration, specifically examining the formation of an environmental school culture embedded with Islamic values in learning practices, as well as

parental involvement (school committee) in school programs. Documentation included policy documents, school curriculum documents, and archival records of flagship school programs reflecting adaptive leadership toward the social and ecological dimensions of the wetland environment.

Data analysis employed thematic analysis techniques through a process of data reduction, categorization, and inductive interpretation of findings. Data validation was conducted using source and method triangulation, as well as member checking, to ensure the accuracy of the researcher's interpretations against the intended meanings of the informants. This study also adhered to research ethics principles, including informed consent, anonymity, and data confidentiality.

Fig. 1 illustrates Matthew B. Miles and A. Michael Huberman's data analysis technique, which consists of three interconnected stages: data reduction, data display, and conclusion drawing or verification. The figure demonstrates how qualitative data are systematically organized, simplified, and interpreted throughout the research process.

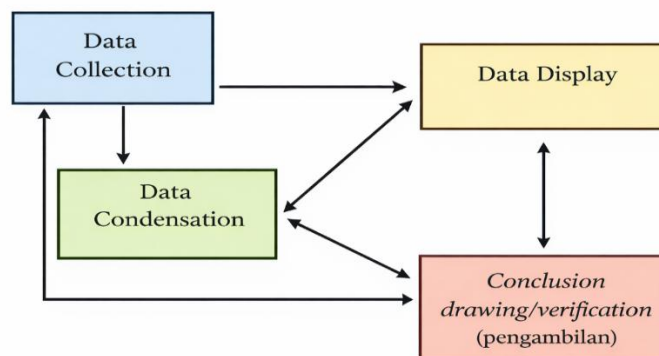


Fig. 1. Miles & Huberman's Data Analysis Technique

Results

The findings reveal that the adaptive leadership of the school principal is reflected in the integration of three primary dimensions: a religious and contextual environmental vision, curriculum integration (strategies for habituation of spiritual and ecological values), and school-community partnerships (parental involvement).

A. Environmental Vision and Implementation of Place-Based Education

Based on in-depth interviews with the school principal, the following information was obtained: As a high-performing school situated within a wetland region, the Islamic ECE institution possesses a unique ecosystem context that is fully utilized in the educational process. The wetland ecosystem-based approach is considered relevant because it connects learning content with the surrounding environment, rendering it more meaningful and contextual. This is reflected in the environmental vision articulated by the principal, who from

the outset formulated a long-term aspiration to establish the school as a *"green Islamic school"* one that excels not only academically and spiritually, but also in environmental stewardship.

This environmental vision is grounded in Islamic values concerning *khalifah fil-ardh* (humanity as stewards of the earth) and the local wisdom of the Banjar people, who have historically coexisted with water. The principal instills the aspiration that every student, from an early age, grows with the awareness that preserving nature constitutes an act of worship and an expression of Islamic character. This vision is communicated intensively to teachers, parents, and all members of the school community, thereby establishing a shared direction for policy-making and program innovation.

For example, the curriculum at the Islamic ECE school incorporates contextual themes such as *"My Nature and Water,"* in which children are guided to observe the surrounding ecosystem, including small rivers and wetlands near the school, under teacher supervision. Learning activities unfold organically as children become acquainted with aquatic plants, fish, and water insects through play in real environments; teachers then connect these experiences to Islamic teachings, such as expressing gratitude for water as a source of life, thereby enriching elementary science learning with profound religious values. This holistic environmental vision characterizes the Islamic ECE institution as one that integrates Islamic values with scientific knowledge contextually and coherently.

B. Curriculum Integration: Habituation Strategies and Islamic Character Formation

Based on interviews conducted with the school principal, the following data were obtained:

"In our curriculum, we incorporate habituation practices such as Islamic character and environmental friendliness, both in guided learning activities and in routines outside formal instruction. To build an Islamic and environmentally conscious school culture both in our conduct as educators and in learning activities so that children learn through habituation and also through modeling from us."

This finding is corroborated by observational data collected by the researchers. From early morning, daily routines at the Islamic ECE school commence with spiritual habituation: children are guided to recite greetings (*salam*) and morning prayers, followed by morning exercises accompanied by songs themed around love for nature, the Prophet, and the Messengers. Based on observational data, teachers consistently and daily cultivate positive behavioral habits in children, such as disposing of waste in designated areas, conserving water when washing hands or performing *wudu* (ritual ablution), and tending to classroom plants and surrounding greenery. These simple habits are repeated and instilled with patient dedication.

A senior teacher corroborated this finding, stating:

"We always model and accompany the children when watering plants or picking up litter. Small habits like these we instill every day, so that over time they become part of the children's character,"

affirming the importance of consistency in environmental and moral habituation.

Based on observational findings, the habituation strategy is also evident in the application of positive discipline that is sensitive to children's developmental stages. For instance, teachers introduced a "*nature corner*" at the school an exploratory play area featuring sand, water, and rocks characteristic of the wetland environment where children are accustomed to exploring while learning the rules of maintaining cleanliness after play. Islamic values such as honesty, responsibility, and compassion are integrated into daily life: children are guided to recite *bismillah* before activities and *alhamdulillah* afterward, to share drinking water with peers as an exercise in empathy, and to habitually utter *subhanallah* upon witnessing the natural beauty around them.

This habituation pattern is fully supported by the principal through close supervision the principal regularly circulates to monitor activities, provides direct role modeling (for example, participating in tree planting or yard cleaning), and offers appreciation to teachers and children when the desired values manifest in daily behavior. Consequently, the habituation strategy at the Islamic ECE school is not merely a set of written regulations, but a living culture deeply rooted in daily practice. The outcomes are evident in behavioral change: children become more independent, disciplined, and environmentally conscious. Teachers and parents alike observe that children spontaneously remind peers not to litter or to turn off taps left running indicating that the value of environmental stewardship has been internalized at an early age.

C. Community Partnership and Stakeholder Engagement

The school principal proactively builds collaboration with various external parties to support the vision and habituation programs that have been established. Most prominently, partnerships with parents are cultivated through intensive communication and active involvement in school programs. The Islamic ECE school established a *Parent Club* a parents' association that regularly engages in discussions and participates in school activities, particularly those related to character education and environmental programs.

"*This school always involves us, the parents, in many activities,*" shared one mother whose child is enrolled in Pre-school Group B. She noted that monthly "*Family Green Action*" events are held, during which teachers, parents, and children collaborate to clean the school environment and plant trees or medicinal herb gardens in the school yard.

Such activities not only beautify the environment but also strengthen the bond between the school and families. Parents feel themselves to be genuine members of the educational community, allowing the values taught at school to be consistently reinforced through habituation at home. Community partnerships also extend to the broader neighborhood: the Islamic ECE school maintains strong relationships with local community leaders and relevant

institutions. For example, the principal collaborates with the neighborhood association in Sungai Andai Village to ensure the school environment remains safe and clean, and occasionally involves local residents in school activities such as communal environmental clean-ups ahead of major Islamic holidays.

Furthermore, the school has partnered with the city's environmental agency and local environmental non-governmental organizations to conduct educational field trips. In one semester, the school invited officers from the environmental agency to demonstrate the planting of mini mangroves in pots for the children as a symbol of wetland conservation, followed by a brief visit to the nearest river education park. These activities were integrated with communal prayers and short *tausiah* (Islamic sermons) on gratitude for God's creation, affording children a concrete experience of how religious values and environmental science can converge.

External partnerships were also established with academics and students from Lambung Mangkurat University, which operates community service programs in the field of wetland-based education. Through this network, ECE teachers receive mentoring in developing contextual instructional materials grounded in local ecosystem knowledge. The broad community support spanning parents, higher education institutions, and local government constitutes important social capital for the Islamic ECE school. The principal manages these partnerships in a planned and participatory manner: every collaborative program is evaluated and improved, ensuring that partners' trust is sustained. As a result, the school gains significant benefits, including access to new learning resources, enhanced teacher competency, and a positive institutional image as an active ECE institution within the community.

The distinctive character of the Islamic ECE school is evident in its integration of Islamic values with water- and wetland-based contextual learning across all three dimensions described above. The three dimensions vision, habituation, and partnership do not operate in isolation; rather, they mutually reinforce one another within the adaptive leadership framework enacted by the principal. The environmentally and spiritually grounded vision provides the foundation; the habituation strategy serves as the vehicle for value internalization among children and teachers; while community partnership provides external support and resources to bring that vision to tangible realization.

As an institution committed to holistic education, the Islamic ECE school integrates religious and scientific knowledge within its curriculum in alignment with its contextual characteristics. A concrete example: when children learn about the water cycle, they are not only guided through a simple experiment of collecting rainwater, but are also invited to contemplate Qur'anic verses about the mercy of rain. When the school commemorates major

Islamic holidays, local nuances are incorporated for instance, the Islamic New Year is marked with a communal river excursion during which a nearby waterway is cleaned as an expression of gratitude. Religious narratives about the environment such as the story of Prophet Muhammad ﷺ, who forbade wasteful use of water even during *wudu* are woven into classroom storytelling, enabling children to internalize environmental moral messages in a subtle yet profound manner.

This integration cultivates a distinctive school culture: children at the Islamic ECE school develop within a learning atmosphere that is simultaneously Islamic, contextual, and adaptive to their environment. Teachers acknowledge that this wetland-based contextual approach makes learning more vibrant; children are more enthusiastic because the topics studied are close to their daily experiences seeing boats on the river, rain, fish, and so forth making them easier to comprehend and retain. The integrated Islamic values do not feel didactic; rather, they emerge naturally within the flow of daily life. Through the adaptive leadership of the principal, the Islamic ECE school has successfully created an educational ecosystem that optimally supports early childhood development.

Discussions

The findings of this study reveal that adaptive leadership in the Islamic ECE school is enacted through three principal dimensions: environmental vision, curriculum integration, and community partnership. These three aspects are demonstrably integrated in constructing a holistic educational ecosystem that supports optimal early childhood development. This is consistent with Heifetz's concept of adaptive leadership, wherein leaders do not merely impose top-down solutions, but rather mobilize all parties to collectively confront challenges and generate innovative responses [16]. In other words, the principal of the Islamic ECE school functions adaptively as a flexible *agent of change* one who reads context perceptively and fosters the participation of teachers, parents, and the community in achieving shared educational goals.

A. Environmental Vision and Implementation of Place-Based Education

The environmental vision promoted by the ECE principal encompasses the creation of a learning environment that is safe, comfortable, and educationally enriching for children. The school is committed to systematically organizing its physical and social environment with attention to the emotional, social, and spiritual needs of its students. Every space is designed to be child-friendly for example, reading corners, art areas, and nature exploration zones thereby encouraging active learning through direct experience and play-based inquiry. This conducive environment aligns with the principles of place-based education, defined as a learning approach that utilizes local contexts cultural heritage, natural environment, and local community as the foundation of children's learning experiences [17].

The application of place-based education at the Islamic ECE school is evident in efforts to integrate surrounding environmental elements and local/Islamic values into the daily curriculum, lending deeper meaning to learning and strengthening the bond between school and community. The literature indicates that place-based education can enhance student engagement and reinforce the relationship between schools and their surrounding communities [18]. The environmental vision implemented by the principal is further reinforced by Islamic values, particularly the concept of humanity as *khalifah fil-ardh* (stewards of the earth). Studies on environmentally conscious school cultures in Islamic institutions have found that the values of *tawhid* (divine unity), *khalifah* (stewardship/trusteeship of nature), *amanah* (trustworthiness), and *ihsan* (excellence/ benevolence) become embedded in school culture, thereby shaping students' ecological character [19].

Accordingly, the findings at the Islamic ECE school indicate a synergy between place-based education theory and Islamic educational principles: the school's environmental vision not only supports academic and aesthetic dimensions, but also internalizes spiritual values concerning care for God's creation. Theoretically, this extends the place-based education framework by incorporating a spiritual dimension, demonstrating that the engagement of local environments in education can proceed in harmony with the cultivation of religious character.

B. Curriculum Integration through Habituation Strategies and Islamic Character Formation

The findings further highlight the role of consistent habituation strategies as the cornerstone of character formation at the Islamic ECE school. The principal adaptively implements a range of routines and school culture practices that instill Islamic values and discipline from an early age such as greeting with *salam*, praying before and after activities, sharing with peers, and maintaining cleanliness daily. These positive habits are not merely routine activities, but constitute an integral component of the leadership strategy for cultivating moral values and noble character (*akhlak mulia*).

Related research supports the effectiveness of habituation methods in early childhood education: simple habits such as *salam*, prayer, sharing, and *shalat dhuha* (mid-morning prayer) have been shown to cultivate discipline, empathy, and responsibility in children, particularly when teachers and parents consistently model these behaviors [20]. Through the consistency and exemplary conduct of leaders and teachers, values repeated daily become embedded as long-term character. This aligns with the method of *tarbiyah* in Islamic education, wherein the repetition of virtuous deeds and *uswah hasanah* (exemplary conduct) constitutes the key to the formation of children's moral character from an early age.

From the perspective of adaptive leadership theory, the implementation of habituation strategies at the Islamic ECE school demonstrates how adaptive leaders can manage gradual behavioral change while preserving the core values of the organization. Adaptation in this context does not entail altering fundamental values, but rather finding creative means of instilling them in ways relevant to children's daily lives. Notably, this finding enriches adaptive leadership theory: if adaptive leadership has traditionally been associated primarily with innovation and rapid change, this case demonstrates that adaptability can equally involve the strengthening of cultural and traditional values in confronting modern challenges such as the influence of digital devices and growing individualism. Bradberry and Greaves in *Emotional Intelligence 2.0* include character as one of the key indicators of adaptive leadership meaning that effective adaptive leaders are not only strategically flexible, but also morally steadfast and capable of nurturing character within their teams or institutions [21]. The religious habituation strategy enacted by the ECE principal reinforces this proposition: that leadership adaptation in Islamic schools involves the integration of pedagogical innovation with the preservation of spiritual values, thereby endowing adaptive leadership theory with a new, more humanistic and value-rooted dimension.

C. Community Partnership and Stakeholder Engagement

The third prominent dimension is the community partnership actively and participatorily constructed by the ECE principal. The findings indicate that the Islamic ECE school has successfully cultivated harmonious cooperation among the school, parents, and the broader community as educational partners. This inclusive approach is reflected in the involvement of parents across various school programs, intensive communication through the school committee, and collaboration with local institutions and communities in supporting learning activities.

From an adaptive leadership perspective, this illustrates the leader's capacity to orchestrate diverse stakeholders toward a common goal something emphasized in adaptive theory as the ability to *mobilize people to tackle tough challenges*. Rather than working in isolation, the ECE principal manages partnerships in a planned and transparent manner, ensuring that all parties feel genuinely involved and accountable. This collaborative approach has been demonstrated to be effective in improving ECE service quality. Prior studies in other ECE settings have similarly found that parental involvement as primary partners contributes positively to children's development and the consistency of learning across home and school environments [22]. When parents are engaged in the planning, implementation, and evaluation of programs, an alignment of vision between home and school is achieved, ultimately creating a coherent and supportive learning environment for children.

From a place-based education perspective, the school's partnership with the local community is highly pertinent [17]. Place-based education emphasizes the necessity of a reciprocal relationship between schools and communities; a school's engagement with the social organizations and environment surrounding it enhances the quality of life and vitality of the community as a whole. In the case of the Islamic ECE school, collaboration with the community for example through environment-based programs and religious activities in the local setting demonstrates that the school has become an inseparable part of its community. This not only enriches children's learning experiences with local resources but also strengthens external support for school programs.

At the national level, this partnership model aligns with Ki Hajar Dewantara's concept of *Tri Pusat Pendidikan* (Three Centers of Education) and the policies of the Ministry of Education and Culture concerning the synergy between school, family, and community-based education. The *gotong royong* (mutual cooperation)-based partnership among these three educational centers is recognized as the foundation for building the character and achievement culture of students. The findings at the Islamic ECE school affirm this principle: the adaptive principal functions as a *bridge builder* who unites the school community's vision with parental aspirations and community potential. With sustained support from teachers, parents, the community, and government, ECE service quality can be improved consistently and sustainably.

Theoretically, the success of these partnerships strengthens the educational leadership literature that emphasizes participatory and inclusive leadership models. The effective multi-stakeholder engagement demonstrated at the Islamic ECE school affirms that adaptive leadership theory is genuinely realized when leaders are capable of cultivating trust and collective commitment within their school community. Beyond reinforcing existing theory, these findings also offer a concrete model of how an adaptive approach can be implemented in faith-based schools, complementing previous research that has largely focused on business and governmental organizational contexts [23].

Overall, the foregoing discussion demonstrates that the adaptive leadership of the Islamic ECE principal has successfully integrated environmental vision, curriculum integration through habituation, and community partnership into a mutually reinforcing unified strategy. These three dimensions do not stand in isolation; rather, they interweave to form an adaptive, Islamically grounded learning environment. From a theoretical standpoint, this study both consolidates existing concepts and introduces new emphases. First, the findings reinforce adaptive leadership theory by providing evidence that a leader's flexibility in adjusting style and strategy to context encompassing the physical environment, children's spiritual needs, and

community character contributes to institutional success. Second, the findings extend the place-based education framework by demonstrating that a school's local context including its religious culture can be harmoniously integrated into the curriculum to enhance student engagement and character development, proving that place-based learning is not confined to the natural environment alone, but also encompasses the community and religious values lived in that place. Third, within the domain of Islamic education, this study challenges the assumption that modern approaches and religious values must be separated; on the contrary, the two can be synergized through adaptive leadership. The principal of the Islamic ECE school successfully responds to contemporary change and challenges without abandoning the identity of Islamic education and local character, offering a model in which Islamic schools can achieve distinction by adapting proactively while remaining firmly grounded in the values of *tawhid* and *akhlak*.

Accordingly, the results of this study not only enrich the body of adaptive leadership theory and place-based education from a new perspective, but also offer practical implications for the development of humanistic, contextual, and sustainable school leadership in Islamic ECE institutions and beyond.

Conclusion

This study affirms that the adaptive leadership of the school principal constitutes a key determinant in constructing an educational ecosystem that is responsive to both the ecological context and Islamic values within wetland-based ECE institutions. Through a qualitative case study conducted at an Islamic ECE school in Banjarmasin, three principal components of adaptive leadership were identified: (1) the formulation of an institutionally religious and contextually grounded vision aligned with the wetland ecosystem; (2) the consistent implementation of habituation strategies embedding Islamic and ecological values within daily learning activities; and (3) the strengthening of collaborative community partnerships among the school, parents, and surrounding community. These three components are demonstrably mutually reinforcing, collectively shaping a school culture that is simultaneously religious in character, ecologically sensitive, and adaptively responsive to its environment.

Theoretically, these findings extend Heifetz's adaptive leadership framework by incorporating spiritual and local-ecological dimensions that have received limited scholarly attention, particularly within the context of Islamic ECE institutions. This study also enriches place-based education theory by demonstrating that relevant local context encompasses not only the natural environment but also the religious values actively lived within the local community thereby broadening the conceptual boundaries of place-based learning. This study acknowledges several limitations. The scope of the research is confined to a single ECE institution, which restricts the direct generalizability of the findings to broader or more diverse

contexts. Furthermore, the single case study design limits the possibility of cross-institutional and cross-ecosystem comparative analysis.

In terms of practical implications, the findings suggest that ECE principals require targeted support through leadership training programs grounded in ecological and spiritual contexts. Local governments, teacher education institutions (*LPTK*), and relevant stakeholders are encouraged to design leadership capacity-building programs that are responsive to local dynamics and informed by religious values, in order to render early childhood education increasingly relevant, holistic, and sustainable. For future research, comparative studies across multiple Islamic ECE institutions situated within diverse ecosystems such as coastal, highland, or dense urban environments are recommended to examine how geographical and cultural contexts shape patterns of adaptive leadership more broadly. Additionally, future investigations may develop standardized instruments to assess adaptive leadership practices grounded in Islamic values and environmental sensitivity, with potential applicability across multiple levels of education.

Conflict of Interest

The authors declare no conflict of interest.

References

- [1] T. Bush and D. Glover, "School leadership models: What do we know?," *Sch. Leadersh. Manag.*, vol. 34, no. 5, pp. 553–571, Oct. 2014, doi: 10.1080/13632434.2014.928680.
- [2] F. Cardona and M. Maimunah, "Meningkatkan kemampuan membilang angka melalui model numbered head together, talking stick dan permainan bendera pintar," *J. Inov. Kreat. Anak Usia Dini*, vol. 2, no. 1, pp. 42–51, 2022, doi: 10.20527/jikad.v2i1.4699.
- [3] Fahmi, Abdullah, and Y. Irhasyurna, "Empowering peat lands as a resource of learning natural science to strengthening environment care," in *Proceedings of the 2nd International Conference on Social Sciences Education (ICSSE 2020)*, 2021, vol. 525, no. Icsse 2020, pp. 428–431. doi: 10.2991/assehr.k.210222.072.
- [4] F. Fahmi, H. Fajeriadi, and Y. Irhasyurna, "Feasibility of the prototype of teaching materials on the topic of classification of living things based on the advantage of local wetland," *BIO-INOVED: J. Biol. Pendidik.*, vol. 3, no. 2, pp. 113–118, 2021, doi: 10.20527/bino.v3i2.10322.
- [5] M. P. Sari, A. P. Putra, and A. Ajizah, "Pengaruh penerapan culture literacy digital wetland lkpd konsep ekologi terhadap hasil belajar," *J. Banua Sci. Educ.*, vol. 2, no. 2, pp. 67–72, 2022, doi: 10.20527/jbse.v2i2.77.
- [6] N. Widyastuti, T. Suminar, and E. Waluyo, "The role of transformational leaders in improving the quality of early childhood education," *JPUD - J. Pendidik. Usia Dini*, vol. 18, no. 2, pp. 322–349, 2024, doi: 10.21009/jpud.v18i2.49615.
- [7] M. Nurhayati, "Peran kepala sekolah dalam pembinaan kompetensi pedagogik guru PAUD di PAUD X Bandung," *J. Ris. Pendidik. Guru Paud*, vol. 2, no. 1, pp. 15–20, 2022, doi: 10.29313/jrpgp.vi.709.
- [8] A. Aslindah, M. Brantasari, Y. I. Pratiwi, M. Meyssi, and M. Mailina, "Strategic leadership role of the principal in the implementation of holistic integrative early childhood services at TK Islam Silmi Samarinda," *Borneo Educ. J.*, vol. 7, no. 2, pp. 610–620, 2025, doi: 10.24903/bej.v7i2.2137.
- [9] R. A. Heifetz, *Leadership without easy answers*. Harvard University Press, 1994.
- [10] S. Ridha, Aslamiah, Noorhapizah, and Novitawati, "Linking instructional supervision to teacher development and school growth in early-stage Islamic elementary institutions," *J. Inov. Pendidik. dan Sains*, vol. 7, no. 1, pp. 114–123, 2026, doi: 10.51673/jips.v7i1.2772.

- [11] Nopiana, "Model pembelajaran berbasis alam untuk meningkatkan ecoliterasi anak usia dini," *J. Humanit. Soc. Sci. Educ.*, vol. 1, no. 4, pp. 96–108, 2025, doi: 10.64690/jhuse.v1i4.209.
- [12] Z. Chunyan, N. Agarwal, and A. Islam, "The effect of a nature-based environmental education of children: The importance of environmental knowledge and the connectedness to nature, together, are related to ecological behavior and environmental attitude," *Int. J. Innov. Sci. Res. Technol.*, vol. 9, no. 5, pp. 3712–3717, 2024, doi: 10.38124/ijisrt/ijisrt24may2487.
- [13] T. A. Selvi, S. A. Putra, and M. Badrun, "Peran kepala sekolah dalam meningkatkan budaya kerja para guru sekolah dasar," *Manaj. Pendidik.*, vol. 19, no. 2, pp. 209–223, 2024, doi: 10.23917/jmp.v9i2.8141.
- [14] K. Leithwood, A. Harris, and D. Hopkins, "Seven strong claims about successful school leadership revisited," *Sch. Leadersh. Manag.*, vol. 40, no. 1, pp. 5–22, 2020, doi: 10.1080/13632434.2019.1596077.
- [15] R. E. White and K. Cooper, "Case study research," in *Qualitative Research in the Post-Modern Era: Critical Approaches and Selected Methodologies*, pp. 233–285. Cham: Springer International Publishing, 2022, doi: 10.1007/978-3-030-85124-8_7.
- [16] E. Rachmawati, A. R. Hidayatullah, and M. I. Anshori, "Gaya kepemimpinan adaptive leadership seorang pemimpin; Studi literatur," *J. Manag. Soc. Sci.*, vol. 1, no. 3, pp. 195–210, 2023, doi: 10.59031/jmsc.v1i3.168.
- [17] Place-Based Education, "What is Place-Based Education? | Promise of Place," *Center for Place-based Learning and Community Engagement*. <https://promiseofplace.org/what-is-pbe/what-is-place-based-education> (accessed Dec. 27, 2025).
- [18] "Rural Schools Collaborative | The value of place in the education of our children" <https://ruralschoolscollaborative.org/stories/the-value-of-place-in-the-education-of-our-children> (accessed Dec. 27, 2025).
- [19] V. I. Ahmad, N. Ali, and I. A. Zuhriyah, "Islamic values in environmental school culture: Character formation and challenges," *EDUKASIA: J. Pendidik. Pembelajaran*, vol. 6, no. 1, pp. 267–280, 2025, doi: 10.62775/edukasia.v6i1.1400.
- [20] E. Meilani, Widianingsih, and J. Harianto, "Metode pembiasaan dalam penguatan akhlak terpuji pada anak usia dini di KB Cahaya Bangsa," *Al-Kalimantan J. Kaji.*, vol. 2, no. 2, pp. 125–133, 2025. [Online]. Available: <https://albaayaninstitute.org/index.php/alkalimantan/article/view/352>.
- [21] T. Bradberry and J. Greaves, *Emotional Intelligence 2.0*. San Diego, CA: TalentSmart, 2009.
- [22] A. Christy, W. Wahyu, and R. R. Jamain, "Pelaksanaan program kemitraan satuan PAUD dan keluarga (Studi multi situs di TK Negeri Pembina Inti dan TK Islam Terpadu Ukhuwah)," *J. Educ. Res.*, vol. 5, no. 3, pp. 3507–3513, 2024, doi: 10.37985/jer.v5i3.1432.
- [23] R. Rahmida, A. Lestari, A. Jariah, R. N. Nazwa, A. Aslamiah, and C. Cinantya, "Peran kepemimpinan dalam meningkatkan kualitas pendidikan anak usia dini," *Psikosopen: J. Psikososial Pendidik.*, vol. 1, no. 2, pp. 404–411, 2025. [Online]. Available: <https://publisherqu.com/index.php/psikosopen/article/view/2560>.

Authors



Maimunah, M.Pd.  is a lecturer in the Early Childhood Teacher Education Program, Faculty of Teacher Training and Education, Universitas Lambung Mangkurat (ULM), Indonesia, where she has been serving since 2018. Besides carrying out the Tri Dharma of Higher Education, she is actively involved in writing and publishing articles in national and international journals. Her research interests focus on early childhood education learning, early childhood education management, and educational practices in PAUD. (email: maimunah@ulm.ac.id).



Prof. Dr. Hj. Aslamiah, M.Pd., Ph.D.   is a senior lecturer in the Doctoral Program of Educational Administration at Universitas Lambung Mangkurat (ULM), Indonesia. She was born in Banjarmasin on January 10, 1960. Her research interests include educational leadership, educational management, early childhood education, curriculum development, teaching methodologies, and educational supervision. She has published extensively in national and international journals in the field of education. (email: aslamiah@ulm.ac.id).