

TRANSFORMATIVE EARLY CHILDHOOD EDUCATION: RECONSTRUCTING HOLISTIC LEARNING FRAMEWORKS FOR FUTURE GENERATIONS IN THE DIGITAL ERA

Evi Selva Nirwana ^{1*}, A. Suradi ¹

¹ Universitas Islam Negeri Fatmawati Sukarno, Bengkulu, Indonesia

Correspondence Author: selvanirwana@gmail.com

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Abstract : *Teacher professional development in remote areas continues to face challenges due to limited access to resources, professional isolation, and a lack of ongoing support. In this context, Professional Learning Communities (PLCs) are viewed as a collaborative approach with the potential to enhance teacher capacity and self-efficacy. However, empirical evidence regarding the role of PLCs in remote areas remains limited. This study aims to explore teachers' experiences in developing self-efficacy through participation in PLCs in remote schools in East Nusa Tenggara, Indonesia. The study employed a qualitative approach with a descriptive phenomenological design. Data were collected through in-depth semi-structured interviews and document analysis, then analyzed through phenomenological stages. The results indicate that participation in PLCs enhances teacher self-efficacy through collaborative learning, peer support, and reflective practice. This study emphasizes the role of PLCs as a mechanism for teacher empowerment in remote areas and the importance of leadership support, structured collaboration, and resource facilitation for ongoing professional development.*

Keywords : *Learning Communities; Teachers' Self-efficacy; Remote School.*

Abstrak : *Pengembangan profesional guru di daerah terpencil masih menghadapi tantangan akibat keterbatasan akses sumber daya, isolasi profesional, dan minimnya dukungan berkelanjutan. Dalam konteks ini, Professional Learning Community (PLC) dipandang sebagai pendekatan kolaboratif yang berpotensi meningkatkan kapasitas dan self-efficacy guru. Namun, bukti empiris terkait peran PLC di wilayah terpencil masih terbatas. Penelitian ini bertujuan mengeksplorasi pengalaman guru dalam mengembangkan self-efficacy melalui partisipasi dalam PLC di sekolah daerah terpencil di Nusa Tenggara Timur, Indonesia. Penelitian menggunakan pendekatan kualitatif dengan desain fenomenologi deskriptif. Data dikumpulkan melalui wawancara mendalam semi-terstruktur dan analisis dokumen, kemudian dianalisis melalui tahapan fenomenologi. Hasil menunjukkan bahwa partisipasi dalam PLC meningkatkan self-efficacy guru melalui pembelajaran kolaboratif, dukungan sejawat, dan praktik reflektif. Studi ini menegaskan peran PLC sebagai mekanisme pemberdayaan guru di daerah terpencil serta pentingnya dukungan kepemimpinan, kolaborasi terstruktur, dan fasilitasi sumber daya untuk pengembangan profesional berkelanjutan.*

Kata Kunci : *Komunitas Pembelajaran; Efikasi Diri Guru; Sekolah Jarak Jauh.*

INTRODUCTION

Global digital transformation has fundamentally reshaped the epistemological landscape of twenty-first-century education, necessitating a conceptualization of educational purposes, processes, and pedagogical orientations from the earliest stages of schooling. In this context, early childhood education (ECE) can no longer be reductively positioned as a preparatory stage for formal schooling; rather, it must be understood as a strategic arena for cultivating multidimensional human capacities from the earliest developmental phase. This perspective aligns with the human development approach, which recognizes early childhood as a critical period for cognitive, socio-emotional, moral, and spiritual development (Phillips & Shonkoff, 2000). Consequently, the transformation of ECE requires a shift from developmental-instructional paradigms toward transformation-holistic pedagogy that views children as whole and active subjects in the construction of knowledge.

Philosophically, the urgency of reconstructing ECE paradigms can be justified through John Dewey's progressive educational thought, which emphasizes that education should be understood as a process of reconstructing experience that enables learners to adapt reflectively to social change (Zai, Showkat, & Ahmad, 2023). Within the digital era, this principle suggests that early childhood learning should not merely focus on early academic stimulation but must be designed to cultivate critical thinking, creativity, collaboration, and adaptability in response to future complexities. Nevertheless, many contemporary ECE practices remain trapped in behaviorist pedagogical models and school-readiness orientations that position children as objects of academic preparation rather than subjects of social transformation.

At the national level, Indonesia's educational vitalization agenda through the *Merdeka Belajar* policy and broader technological transformation initiatives has expanded the penetration of digital devices into ECE classrooms. However, such modernization often operates within a framework of techno-instrumental, in which educational transformation is narrowly interpreted as the adoption of technological devices without substantive changes to the philosophy of learning itself. This tendency warrants critical scrutiny because technology is inherently value-laden and pedagogically non-neutral; without reflective instructional design, vitalization may instead reinforce mechanistic pedagogy, weaken teacher-child relational, and reduce learning to digitally mediated stimulus-response activities (Selwyn, 2016).

Furthermore, according to Bronfenbrenner's Ecological Systems Theory, child development emerges from dynamic interactions between the individual and multiple interconnected environmental systems (Perron, 2017). In the digital era, children's developmental environments are no longer confined to family, school, and physical

communities but have expanded into digital ecosystems that actively shape children's experiences, interactions, and identity formation. Intensive exposure to digital media from early childhood has been shown to affect attention development, emotional regulation, social competence, and learning habits (Livingstone & Blum-Ross, 2020). Thus, the challenge for contemporary ECE is not merely integrating technology into instruction but responding to the ecological transformation of child development caused by vitalization.

The complexity of this issue deepens as digital spaces function not only as informational environments but also as arenas for the production and reproduction of values, ideologies, and moral orientations that may be misaligned with children's developmental needs. From the perspective of Freire's critical pedagogy, education is never neutral because it is always embedded within relations of power and ideological reproduction (Giroux, 2024). Therefore, the absence of a critical pedagogical framework in digital ECE risks positioning children as passive consumers of values shaped by algorithms, platform cultures, and digital capitalism. In this regard, early childhood education must be reoriented toward fostering digital critical consciousness from an early age through pedagogical practices that nurture reflection, empathy, and ethical awareness toward the socio-political worlds' children inhabit.

Although scholarship on digital early childhood education has grown substantially over the past decade, most existing studies continue to focus on the effectiveness of digital media, educational applications, or technological integration in instructional activities (Edwards, 2021). Such approaches remain largely technocentric and fail to address the more fundamental paradigmatic question of how digital transformation reconstructs the nature of development, learning, and pedagogical relations in early childhood education. Consequently, the discourse on ECE transformation remains dominated by methodological innovation, while philosophical reconstruction of ECE models responsive to the digital era remains underdeveloped.

In addition, research on holistic learning in ECE continues to exhibit high theoretical fragmentation. Dimensions such as emotionalism development, character education, spirituality, creativity, and digital literacy are frequently discussed in isolation rather than within integrated conceptual frameworks. Yet, from the perspective of Vygotsky's sociocultural learning theory, child development occurs holistically through social interaction, cultural mediation, and meaningful learning environments (Marginson & Dang, 2017). This conceptual fragmentation indicates the absence of a comprehensive pedagogical model capable of synthesizing these developmental dimensions into a coherent transformation framework.

Based on these gaps, the present study aims to reconstruct a transformative holistic learning framework for early childhood education that is responsive to the opportunities and challenges of the digital era. Specifically, this study seeks to critically examine the philosophical and theoretical foundations underpinning transformative early childhood education by synthesizing insights from progressive education, ecological systems theory, sociocultural learning theory, and critical pedagogy. Furthermore, the study identifies and integrates the cognitive, socio-emotional, moral, spiritual, creative, and digital dimensions of child development into a coherent conceptual framework that moves beyond fragmented and technocentric approaches to early childhood learning. By proposing a comprehensive framework for transformative early childhood education, this study is expected to contribute to the advancement of educational theory while providing conceptual guidance for educators, curriculum developers, and policymakers in designing holistic learning environments capable of preparing future generations to thrive ethically, critically, and adaptively within an increasingly complex digital society.

METHOD

This study employed a qualitative multiple-case study design to explore and reconstruct a transformation holistic learning framework for early childhood education in the digital era. A multiple-case approach was selected because the study aimed not merely to describe individual experiences, but to comparatively examine pedagogical practices across several early childhood education settings in order to identify recurring patterns, contextual variations, and emerging dimensions of transformative holistic pedagogy (Simmie, 2023). This design enabled the researcher to generate a contextually grounded and theoretically informed conceptual framework through cross-case analysis.

The research was conducted in five early childhood education institutions in Bengkulu Province, Indonesia, selected to represent variation in institutional type, technological readiness, and pedagogical orientation. These included two urban kindergartens with established digital learning facilities, two semi-urban Islamic early childhood institutions integrating character education, and one rural PAUD center with limited digital infrastructure. Such variation was intentionally sought to capture diverse manifestations of pedagogical adaptation within differing sociolect-educational contexts.

Informants participated in this study, consisting of early childhood teachers, school principals, and parents of enrolled children. Teachers were selected as primary pedagogical actors responsible for implementing classroom practices, principals provided institutional and curricular perspectives, and parents contributed insights regarding children's developmental responses and digital learning experiences beyond school settings. This

multi-stakeholder composition enabled a more comprehensive understanding of transformative early childhood pedagogy across institutional and domestic environments.

Data were collected through semi-structured interviews, non-participant classroom observations, and document analysis. Interviews explored educators' pedagogical beliefs, digital integration strategies, and perceptions of holistic child development. Classroom observations focused on instructional interactions, technology-mediated learning practices, and developmental dimensions embedded in pedagogical routines. Document analysis included curriculum plans, lesson designs, institutional policy documents, and learning assessment records to examine the formal articulation of holistic and digital pedagogical principles.

Data analysis was conducted using thematic analysis informed by open and axial coding procedures (Braun & Clarke, 2021). In the first stage, all interview transcripts, observation notes, and documents were subjected to open coding to identify significant pedagogical concepts, practices, and developmental dimensions. In the second stage, axial coding was employed to establish conceptual relationships among categories and to cluster them into broader thematic domains relevant to transformative holistic learning. Finally, cross-case thematic synthesis was undertaken to compare patterns across institutions and generate an integrative conceptual framework of transformative early childhood education.

To ensure trustworthiness and validity, the study employed methodological and source triangulation in several forms. *First*, interview findings were systematically cross-checked against classroom observation data to verify consistency between reported pedagogical beliefs and actual instructional practices. *Second*, institutional documents such as lesson plans and curriculum guidelines were analyzed to validate whether observed pedagogical approaches were formally embedded within educational planning. *Third*, perspectives from teachers, principals, and parents were comparatively examined to triangulate interpretations regarding the developmental impact of pedagogical practices. Finally, preliminary thematic findings were returned to selected participants for member checking, allowing participants to confirm interpretive accuracy and clarify potential misrepresentations before final framework construction.

RESULT AND DISCUSSION

1. Results

The findings of this multiple case study reveal a significant shift in the conceptualization and implementation of early childhood education in response to the changing developmental landscape of the digital era. Drawing on data from semi-

structured interviews, classroom observations, and document analysis across five early childhood education institutions in Bengkulu, the analysis identified interconnected patterns concerning pedagogical orientation, holistic child development, and the role of digital technology in learning. Rather than positioning digitalization merely as a technological innovation, the findings indicate a broader need to reconstruct early childhood learning around children's holistic development, human flourishing, and ethical engagement with digital environments.

a) Shifting The Early Childhood Education Paradigm

Interview findings indicate that pedagogical orientations in most early childhood education institutions remain predominantly shaped by the school readiness paradigm, emphasizing the preparation of children for primary education through the development of early literacy, numeracy, and behavioral discipline. One teacher from an urban kindergarten stated:

"Parents still expect their children to be able to read, write, and count before graduating from kindergarten. Therefore, our teaching is often directed toward that expectation, so children are considered ready for elementary school" (Interview with IM, 2026).

This statement suggests that social pressure and parental expectations remain dominant factors shaping pedagogical orientations in early childhood education, leading institutions to maintain academic-instructional approaches as the principal indicator of educational success. Nevertheless, the findings also reveal an emerging paradigmatic shift in several institutions that have begun to adopt a more holistic educational orientation. The principal of one Islamic early childhood institution explained:

"We are beginning to change our perspective that early childhood education is not a place to make children read quickly, but a place to build character, independence, empathy, manners, and curiosity" (Interview with QK, 2026).

This perspective reflects a growing awareness among practitioners that early childhood education should be directed toward the holistic development of human capacities rather than merely accelerating academic achievement. Such a shift marks an epistemological transition from a school readiness orientation toward a human flourishing paradigm that emphasizes the multidimensional development of children. Classroom observations further corroborate this finding. In institutions still dominated by the school readiness orientation, learning activities were primarily characterized by worksheet completion, repetitive drilling of letters and numbers, and one-way teacher instruction. Learning interactions tended to be highly structured,

uniform, and task-oriented, with a predominant focus on academic completion (Observation, 2026). In contrast, institutions exhibiting more transformative orientations demonstrated flexible, dialogical, and exploratory pedagogical practices. Children were given opportunities to engage in collaborative play, express ideas, ask questions, and solve simple problems independently.

For instance, during one observed session in a progressive institution, the teacher did not directly instruct children on task completion but instead invited them to collaboratively design a “future city” using blocks and interactive digital devices. Through this activity, children developed not only creativity and motor skills but also negotiation, communication, problem-solving, and idea articulation capacities. This observation indicates that learning had been reoriented toward fostering children’s cognitive, social, and imaginative development simultaneously.

From the parental perspective, this transformation in educational orientation has also begun to be perceived positively, although it has not yet been universally accepted. One parent commented:

“At first, I was worried because my child was not yet fluent in reading, but after seeing that she became more confident, more willing to speak, and more independent, I began to understand that child development is not only about academics” (Interview with SS, 2026).

This finding suggests that transforming the ECE paradigm requires not only institutional change but also a broader reconstruction of societal understandings regarding indicators of successful early childhood education.

Table 1: Summary of Interview Findings

No.	Informant/Data Source	Main Findings	Interview Excerpt/Observation	Interpretation
1	Kindergarten Teacher (IM, 2026)	Teaching practices remain predominantly oriented toward the school readiness paradigm.	<i>“Parents still expect their children to be able to read, write, and count before graduating from kindergarten. Therefore, our teaching is often directed toward that expectation, so children are considered ready for elementary school.”</i>	Parental expectations continue to shape pedagogical orientations, encouraging academic-focused instruction emphasizing early literacy, numeracy, and behavioral discipline.
2	Principal of an Islamic ECE	A gradual shift toward the	<i>“We are beginning to change our perspective that early childhood</i>	Early childhood education is

	Institution (QK, 2026)	human flourishing paradigm has begun.	<i>education is not a place to make children read quickly, but a place to build character, independence, empathy, manners, and curiosity."</i>	increasingly viewed as a holistic process that develops children's character, independence, empathy, curiosity, and overall well-being rather than merely accelerating academic achievement.
3	Classroom Observation (2026)	Institutions dominated by the school readiness orientation employ structured academic instruction.	Learning activities were characterized by worksheets, repetitive drills of letters and numbers, and one-way teacher instruction.	Learning remains teacher-centered and task-oriented, providing limited opportunities for children's exploration and autonomous learning.
4	Classroom Observation (2026)	Transformative institutions implement exploratory and collaborative learning approaches.	Children collaboratively designed a " <i>future city</i> " using blocks and interactive digital devices.	Learning simultaneously fostered creativity, communication, collaboration, problem-solving, imagination, and social interaction, reflecting the principles of holistic child development.
5	Parent (SS, 2026)	Parents' perceptions of successful early childhood education are gradually changing.	<i>"At first, I was worried because my child was not yet fluent in reading, but after seeing that she became more confident, more willing to speak, and more independent, I began to understand that child development is not only about academics."</i>	Parents increasingly recognize that educational success should be measured not only by academic achievement but also by children's confidence, independence, and socio-emotional development.
6	Researcher's Synthesis	The paradigm shift constitutes the foundation for transforming	Synthesized from interviews and classroom observations.	Transforming ECE requires redefining its purpose – from preparing children for school to

ECE in the digital era.	preparing children for life – by emphasizing creativity, digital literacy, emotional regulation, empathy, character development, and reflective thinking.
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Based on the overall findings, the author argues that the shift from *school* readiness to human flourishing constitutes the foundational prerequisite for transforming early childhood education in the digital era. The continued dominance of academic-oriented paradigms risks reducing child development to mere institutional preparedness for formal schooling, even though digital-age complexity demands capacities far beyond early academic mastery. Future generations require reflective thinking, creativity, emotional regulation, social empathy, digital literacy, and character resilience competencies that cannot be cultivated through narrowly academic-instructional approaches alone.

Table 2: Thematic Summary of Research Findings

Theme	Interview Findings	Educational Implications
Dominance of the School Readiness Paradigm	Teachers continue to prioritize school readiness due to strong parental expectations.	Learning remains focused on early academic competencies such as literacy and numeracy.
Emergence of the Human Flourishing Paradigm	Some institutions have begun prioritizing character development, independence, empathy, curiosity, and holistic child development.	The purpose of ECE is shifting from academic preparation toward fostering children's overall well-being and lifelong capacities.
Pedagogical Practices	Clear differences exist between traditional academic instruction and transformative, inquiry-based learning environments.	Transformative pedagogy better supports twenty-first-century competencies, including creativity, collaboration, communication, and critical thinking.
Parents' Perspectives	Parents are gradually redefining indicators of educational success beyond academic performance.	Parental support is essential for sustaining the transformation toward holistic early childhood education.
Conceptual Implications	ECE in the digital era should prioritize the development of	This paradigm provides the philosophical foundation for

lifelong competencies rather than merely preparing children for formal schooling.	designing curricula and pedagogical practices centered on human flourishing.
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Accordingly, these findings affirm that reconstructing transformative early childhood education must begin with a philosophical redefinition of the purpose of ECE itself: from merely preparing children for school toward preparing children for life. This philosophical shift provides the conceptual foundation for developing a holistic learning framework more responsive to the needs of future generations in the digital era.

b) Integrating Multidimensional Child Development Within A Holistic Transformative Pedagogical Architecture

Cross-case analysis revealed that transformative early childhood education practices are characterized by the integration of multidimensional developmental domains within a coherent pedagogical architecture. Interview findings indicate that institutions demonstrating more innovative pedagogical orientations no longer separate developmental goals into isolated curricular components; instead, they intentionally design learning experiences that simultaneously stimulate cognitive, socio-emotional, moral-spiritual, creative, and digital competencies. One teacher explained:

“In one activity, children are not only learning numbers or letters. We try to combine collaboration, confidence, creativity, and even moral values in the same learning process” (Interview with MHN, 2026).

This statement illustrates a pedagogical shift from compartmentalized instructional planning toward integrated developmental design, wherein learning activities are structured to foster multiple dimensions of child development simultaneously rather than sequentially or separately.

Classroom observations confirmed this integrative approach. In several transformative institutions, thematic and play-based learning activities were deliberately structured to connect academic exploration with socio-emotional interaction, moral reflection, and creative expression. For example, during a project-based activity on environmental care, children engaged in planting activities while simultaneously discussing responsibility, cooperation, gratitude for nature, and documenting the process through digital photo journals (Observation, 2026). Such practices demonstrate that pedagogical design had moved beyond discrete subject-based instruction toward multidimensional experiential learning.

Conversely, observations in more conventional institutions revealed a fragmented pedagogical structure in which developmental domains were treated as

separate instructional agendas (Observation, 2026). Academic learning, character education, spiritual routines, and technology use were often implemented in isolated sessions with minimal conceptual integration. One principal acknowledged this limitation:

"Sometimes we teach character education in the morning, literacy afterward, and digital learning separately. We realize now that perhaps these aspects should be more connected in one learning experience" (Interview with AA, 2026).

This fragmentation indicates that while many institutions formally recognize the importance of holistic development, their pedagogical implementation often remains compartmentalized and programmatic rather than genuinely integrative. Parents also reported observable developmental differences among children exposed to more integrated pedagogical environments. One parent stated:

"My child has become more expressive, more cooperative with others, and more curious at home. She tells stories not only about what she learned but also about how she solved problems with friends" (Interview with AR, 2026).

Such responses suggest that pedagogical integration enhances not only academic learning outcomes, but also broader developmental capacities related to agency, communication, and interpersonal competence.

Table 3: Summary of Interview Findings

No	Informant/Data Source	Main Findings	Interview Excerpt/Observation	Interpretation
1	Teacher (MHN, 2026)	Learning activities are intentionally designed to integrate multiple developmental domains simultaneously.	<i>"In one activity, children are not only learning numbers or letters. We try to combine collaboration, confidence, creativity, and even moral values in the same learning process."</i>	Teaching has shifted from compartmentalized instruction toward integrated pedagogical design that simultaneously develops cognitive, socio-emotional, creative, and moral competencies.
2	Classroom Observation (2026)	Transformative institutions implement integrated thematic and play-based	During an environmental care project, children planted seeds, discussed responsibility and gratitude, collaborated	Learning experiences integrate academic exploration, socio-emotional interaction, moral reflection, creativity, and digital literacy within a

		learning experiences.	with peers, and documented the activity through digital photo journals.	single pedagogical activity.
3	Classroom Observation (2026)	Conventional institutions continue to implement fragmented pedagogical practices.	Academic instruction, character education, spiritual routines, and technology use were conducted as separate learning sessions with limited conceptual integration.	Holistic development is recognized conceptually but remains fragmented in pedagogical implementation, reducing opportunities for interconnected child development.
4	Principal (AA, 2026)	School leaders acknowledge the limitations of fragmented instructional practices.	<i>"Sometimes we teach character education in the morning, literacy afterward, and digital learning separately. We realize now that perhaps these aspects should be more connected in one learning experience."</i>	Institutions are becoming aware of the need to redesign learning experiences by integrating developmental domains rather than delivering them separately.
5	Parent (AR, 2026)	Integrated pedagogy positively influences children's holistic development.	<i>"My child has become more expressive, more cooperative with others, and more curious at home. She tells stories not only about what she learned but also about how she solved problems with friends."</i>	Integrated learning enhances communication, collaboration, curiosity, problem-solving, and children's sense of agency beyond academic achievement.
6	Researcher's Synthesis	Holistic transformative pedagogy requires an integrated pedagogical ecosystem rather than the addition of isolated developmental components.	Synthesized from interviews and classroom observations.	Effective transformative pedagogy systematically integrates cognitive, socio-emotional, moral-spiritual, creative, and digital development into every learning experience, preparing children for the complexity of the digital era.

From an analytical perspective, the author argues that these findings reinforce the proposition that holistic transformative pedagogy cannot be reduced to the additive inclusion of multiple developmental components within the curriculum. Rather, it requires the systemic integration of developmental dimensions into an interconnected pedagogical ecosystem in which each learning experience functions as a multidimensional developmental encounter.

The findings challenge prevailing early childhood educational practices that continue to operationalize developmental domains through fragmented curricular structures. Such fragmentation risks producing partial developmental stimulation and undermines the interdependent nature of early childhood growth. In digitally mediated societies, where children encounter increasingly complex cognitive, emotional, and ethical environments, pedagogical fragmentation becomes even more problematic because it fails to prepare children for the integrated competencies required in contemporary life.

Table 4: Thematic Summary of Research Findings

Theme	Interview Findings	Educational Implications
Integrated Multidimensional Development	Innovative ECE institutions intentionally combine cognitive, socio-emotional, moral, creative, and digital competencies within the same learning activity.	Learning experiences become holistic developmental encounters rather than isolated academic tasks.
Transformative Pedagogical Practices	Project-based, thematic, and play-based learning integrates academic inquiry with collaboration, moral reflection, creativity, and digital engagement.	Integrated pedagogy promotes children's intellectual, emotional, social, ethical, and creative development simultaneously.
Fragmented Pedagogical Structure	Conventional institutions continue separating literacy, character education, spiritual learning, and digital activities into distinct instructional sessions.	Fragmentation limits the interconnected nature of child development and reduces opportunities for meaningful holistic learning.
Institutional Awareness	School leaders recognize that existing pedagogical practices require greater integration across developmental domains.	Curriculum and instructional design should be reconstructed to promote coherence across

		all developmental dimensions.
Parents' Perspectives	Parents observe improvements in children's communication, cooperation, curiosity, and problem-solving abilities.	Holistic pedagogy generates developmental outcomes that extend beyond academic performance into everyday social and emotional functioning.
Conceptual Implications	Transformative ECE requires replacing segmented instructional models with integrated multidimensional pedagogical frameworks.	Holistic development should function as the organizing principle of curriculum design, enabling children to develop intellectual adaptability, ethical awareness, digital competence, and socio-emotional resilience for the digital era.

Accordingly, this study contends that transformative early childhood education in the digital era necessitates the reconstruction of pedagogical architecture from segmented instructional models toward integrated multidimensional developmental frameworks. Such reconstruction positions holistic development not as a rhetorical principle but as the organizing logic of pedagogical design itself. This integrative architecture constitutes a critical foundation for preparing future generations capable of navigating digital-age complexity with intellectual adaptability, ethical awareness, and socio-emotional resilience.

c) Reconstructing Humanistic Digital Pedagogy

Findings from interviews and classroom observations indicate that the integration of digital technology in early childhood education remains predominantly instrumental in nature (Observation, 2026). In most institutions, digital tools are primarily utilized as supplementary media for content delivery, visual stimulation, or entertainment-based learning activities rather than as transformative pedagogical instruments. One teacher stated:

“Usually, we use tablets or videos just to help explain the lesson or keep children engaged. We have not yet fully used technology as part of deeper learning activities” (Interview with ADS, 2026).

This finding suggests that digital integration in many early childhood settings remains confined to functional-technological enhancement without substantial

pedagogical transformation. Technology is often positioned as an accessory to conventional instruction rather than as an integrated component of a reimagined learning ecology.

However, several institutions demonstrated more advanced pedagogical innovation by repositioning technology as a reflective and creative learning medium embedded within child-centered developmental processes. In these contexts, digital tools were employed to support collaborative storytelling, creative design, problem-solving activities, and reflective documentation of learning experiences. During one classroom observation, children used simple digital applications to record plant growth in a science exploration project while discussing environmental responsibility and presenting their findings to peers. Such practices indicate that technology was not merely facilitating content transmission but actively mediating inquiry, reflection, and social interaction.

School leaders also articulated a growing awareness that digital pedagogy must be grounded in ethical and developmental considerations rather than technological enthusiasm alone. One principal remarked:

"Technology should not replace teacher-child interaction. It must support children's thinking, creativity, and values – not simply make learning look modern" (Interview with NM, 2026).

This perspective reflects an emergent pedagogical consciousness that challenges techno-centric assumptions and emphasizes the necessity of aligning digital integration with broader human developmental goals. Parents similarly expressed concerns regarding the uncritical use of digital technology in early childhood learning environments. Several participants distinguished between productive and passive digital engagement, emphasizing that meaningful digital learning should involve creativity, interaction, and guidance rather than mere screen exposure. One parent noted:

"If technology only makes children sit and watch, that is not learning. But when they use it to create, tell stories, or explore ideas, it becomes different" (Interview with RS, 2026).

These responses indicate increasing stakeholder awareness that the educational value of technology lies not in its presence but in the pedagogical intentionality governing its use.

Table 5: Summary of Interview Findings

No	Informant/Data Source	Main Findings	Interview Excerpt/Observation	Interpretation
1	Teacher (ADS, 2026)	Digital technology is predominantly used as a supplementary instructional tool.	<i>"Usually, we use tablets or videos just to help explain the lesson or keep children engaged. We have not yet fully used technology as part of deeper learning activities."</i>	Digital integration remains largely instrumental, supporting conventional instruction rather than transforming pedagogical practices.
2	Classroom Observation (2026)	Some institutions have begun integrating digital technology into inquiry-based and child-centered learning.	Children used digital applications to document plant growth, discuss environmental responsibility, and present their findings to classmates.	Technology functioned as a medium for inquiry, collaboration, creativity, reflection, and communication rather than merely delivering instructional content.
3	Principal (NM, 2026)	Digital pedagogy should prioritize child development rather than technological sophistication.	<i>"Technology should not replace teacher-child interaction. It must support children's thinking, creativity, and values – not simply make learning look modern."</i>	Effective digital pedagogy requires ethical and developmental considerations that preserve meaningful teacher-child relationships while enhancing learning experiences.
4	Parent (RS, 2026)	Parents distinguish between passive and productive digital engagement.	<i>"If technology only makes children sit and watch, that is not learning. But when they use it to create, tell stories, or explore ideas, it becomes different."</i>	The educational value of technology depends on pedagogical intentionality, active participation, creativity, and guided interaction rather than screen exposure alone.
5	Classroom Observation (2026)	Innovative institutions integrate technology with	Digital storytelling, collaborative design activities, project documentation, and problem-solving	Technology becomes an integral component of a child-centered learning ecology that promotes

		collaborative, reflective, and creative learning experiences.	tasks were embedded in classroom learning.	higher-order thinking, communication, and collaborative learning.
6	Researcher's Synthesis	Humanistic digital pedagogy provides the foundation for transformative early childhood education in the digital era.	Synthesized from interviews and classroom observations.	A transformative pedagogical framework integrates three interconnected dimensions: (1) a humanistic-ethical foundation, (2) multidimensional child development, and (3) future-oriented digital pedagogy to support children's holistic flourishing.

Based on the synthesis of empirical findings, the author reconstructs a framework of humanistic digital pedagogy as the core architecture of transformative early childhood education in the digital era. This framework consists of three interdependent layers. The first layer, humanistic-ethical foundation, encompasses pedagogical care, emotional safety, empathy, relational trust, and ethical guidance as the moral basis of all learning interactions. The second layer, multidimensional developmental integration, involves the simultaneous cultivation of cognitive, socio-emotional, moral-spiritual, creative, and character-based competencies through integrated pedagogical experiences. The third layer, future-oriented digital pedagogy, entails the intentional use of digital tools to foster creativity, inquiry, collaboration, digital literacy, and critical awareness of digital environments.

Theoretically, this reconstructed model extends traditional conceptions of holistic learning by incorporating digital resilience and ethical digital consciousness as integral dimensions of early childhood education. While previous holistic learning frameworks have largely focused on cognitive, emotional, and moral development, the present findings suggest that digitally mediated childhood requires an expanded pedagogical framework responsive to the ethical, relational, and epistemic challenges of digital life. In this regard, the study advances the discourse on transformative early childhood education by reframing digital pedagogy not as a technical issue of technology adoption, but as a philosophical and developmental issue concerning the kind of human beings' education seeks to cultivate.

Table 6: Thematic Summary of Research Findings

Theme	Interview Findings	Educational Implications
Instrumental Use of Digital Technology	Most institutions use digital devices primarily for content delivery, visual support, and maintaining children's attention.	Technology functions as an instructional aid rather than as a transformative pedagogical resource.
Transformative Digital Pedagogy	Progressive institutions integrate digital technology into inquiry, creativity, collaboration, reflection, and project-based learning.	Digital tools enrich children's cognitive, creative, communicative, and collaborative capacities within meaningful learning experiences.
Humanistic-Ethical Orientation	School leaders emphasize that technology should strengthen – not replace – teacher-child relationships and ethical development.	Digital pedagogy should be guided by human values, emotional safety, empathy, and developmental appropriateness.
Parents' Perspectives	Parents value digital learning that encourages active creation, storytelling, exploration, and interaction rather than passive screen consumption.	Effective digital learning depends on pedagogical intentionality rather than the mere presence of technology.
Reconstruction of Humanistic Digital Pedagogy	The proposed framework consists of three interconnected dimensions: a humanistic-ethical foundation, multidimensional developmental integration, and future-oriented digital pedagogy.	Holistic digital pedagogy provides a comprehensive model for integrating child development with ethical and meaningful technology use.
Conceptual Implications	Transformative ECE should move beyond technological adoption toward reconstructing a humanistic digital pedagogical framework centered on child flourishing.	The framework positions digital literacy, ethical awareness, creativity, inquiry, collaboration, and socio-emotional development as interconnected competencies necessary for future generations in the digital era.

This study argues that transformative early childhood education in the digital era must move beyond technological accommodation toward the reconstruction of a humanistic digital pedagogy that places child flourishing rather than technological modernization at the center of educational transformation. Such a framework provides a theoretically grounded and pedagogically actionable model for

reimagining early childhood education in ways that are developmentally holistic, ethically conscious, and future-oriented.

2. Discussion

The findings indicate that early childhood education in many institutions remains predominantly governed by the *school readiness* paradigm, a pedagogical orientation that positions academic preparedness as the principal indicator of educational success. This paradigm is reflected in the excessive emphasis placed on early literacy, basic numeracy, and behavioral compliance as prerequisites for entering primary school (Duncan, 2007). These findings corroborate previous critiques suggesting that early childhood education practices in many contexts remain trapped in the “schoolification of early childhood education,” whereby the logic of formal schooling is imposed upon early childhood settings, thereby displacing the developmental and holistic essence of early childhood education itself (Bradbury, 2019).

Philosophically, the dominance of the *school readiness* paradigm reflects a form of pedagogical reductionism that treats children as objects of institutional preparation rather than subjects engaged in the holistic construction of their human capacities. Such an orientation contradicts Dewey’s proposition that education should be understood as the reconstruction of lived experience rather than mere preparation for subsequent stages of life (Løvlie, 2015). When early childhood education is reduced to a transitional mechanism for formal schooling, its humanistic purpose is diminished and replaced by developmental standardization based on institutional expectations.

However, the findings also reveal emerging transformative tendencies among several institutions that have begun reconstructing their pedagogical orientations toward a *human flourishing* paradigm. This paradigm positions early childhood education as a space for cultivating multidimensional human capacities, including cognitive development, socio-emotional growth, moral and spiritual formation, creativity, and the development of agency and identity (Hidayah et al., 2024; Mundiri et al., 2025; Yıldız, 2025). This finding aligns with international discourse on *whole-child education* and *human flourishing in education*, which emphasizes that the goals of twenty-first-century education can no longer be reduced to academic attainment but must encompass the development of individuals capable of living meaningful, ethical, and adaptive lives in complex societies (Kristjánsson, 2020).

The urgency of shifting toward *human flourishing* becomes even more pronounced in the digital era (Kantar & Bynum, 2021). The complexity of digitally mediated life has fundamentally transformed the conditions of childhood, such that children require not

merely academic readiness for school but existential and social readiness for life in contexts characterized by information acceleration, uncertainty, hyper-connectivity, and constant technological change. In such contexts, capacities such as creativity, emotional regulation, empathy, reflective thinking, digital literacy, and character resilience become equally, if not more important than early academic mastery. Maintaining a *school readiness* paradigm under these conditions therefore risks perpetuating an educational model increasingly obsolete in relation to the demands of digital-age childhood.

More fundamentally, the transition toward *human flourishing* entails not merely expanding educational objectives but reconstructing the epistemological assumptions through which children are understood within educational systems. Children should no longer be perceived as “future students” awaiting preparation for formal schooling, but as present learners already situated within social, cultural, and digital realities. This perspective resonates with Vygotsky’s sociocultural theory, which conceptualizes children as active agents in the construction of knowledge through interaction with their social and cultural environments (Chen, 2025; Noor et al., 2026). Early childhood education, therefore, must be designed to support the actualization of children’s potential within their present lived realities rather than solely preparing them for future institutional participation.

Furthermore, the finding that some parents have begun to value non-academic developmental outcomes suggests that transforming early childhood education paradigms depends not only on school-level innovation but also on broader societal reconstruction of what counts as educational success in early childhood. In many contexts, pressure on ECE institutions to produce children who can “read early” reflects a culture of educational performativity in which quality is measured through visible and quantifiable academic indicators (Andrianatos, 2019). Consequently, the shift toward *human flourishing* requires a broader discursive transformation regarding the societal meaning of successful early childhood education.

Taken together, these findings affirm that reconstructing transformative early childhood education must begin with a philosophical redefinition of educational purpose itself. The shift from *school readiness* to *human flourishing* is not merely a curricular innovation but a paradigmatic transformation that reorients the center of education from institutional preparedness toward the holistic cultivation of human potential. This shift constitutes the conceptual foundation for developing a holistic learning framework relevant to the developmental needs of future generations in the digital era.

The findings indicate that transformative early childhood learning cannot be achieved through pedagogical approaches that fragment developmental domains into isolated instructional components. Instead, the most effective practices identified in this

study emerged in institutions capable of integrating cognitive, socio-emotional, moral-spiritual, creative, digital, and character development within a unified learning experience. This finding affirms that holistic learning in early childhood education is not merely the accumulation of multiple developmental aspects within the curriculum, but rather a comprehensive reconstruction of pedagogical architecture through which all developmental domains can grow simultaneously and interdependently.

Theoretically, these findings align with Vygotsky's sociocultural perspective, which conceptualizes child development as a holistic process mediated through social interaction, cultural tools, and meaningful learning experiences (Fitriana et al., 2026; Tzuriel, 2021). Within this framework, cognitive development cannot be separated from the social and emotional contexts in which learning occurs, nor can moral and character development be cultivated through normative instruction alone. Fragmenting developmental domains in early childhood pedagogy therefore contradicts the inherently integrative nature of child development itself (Archibong, Afeku-Amenyo, Adekunle, Owusu, & Senaye, 2025).

These findings also challenge the prevailing tendency in many early childhood settings to operationalize learning through segmented pedagogical logics, such as separating "academic instruction," "character education," "spiritual activities," and "digital literacy" into discrete instructional blocks. Such approaches risk producing mechanistic and partial pedagogies by treating child development as a collection of discrete competencies that can be stimulated independently. As Bronfenbrenner (1979) argues, child development is the product of dynamic interactions across interconnected ecological systems; thus, effective educational interventions must be ecological and integrative in nature (Burakgazi, 2025; Hafiduddin & Abdullah, (2024).

In the digital era, the urgency of multidimensional integration becomes even more pronounced, as children develop within environments requiring increasingly complex and cross-domain competencies (Mundiri & Zakiyah, 2025; Warnke & Osterhaus, 2026). Digital engagement, for instance, involves not only cognitive information processing but also emotional regulation, ethical judgment, creativity, social interaction, and reflective thinking (ElSayary, Mohebi, & Meda, 2022). Consequently, separating digital literacy from character education or socio-emotional development constitutes an increasingly inadequate pedagogical response to the realities of contemporary childhood.

Moreover, the findings suggest that multidimensional integration enhances not only the breadth but also the depth of children's developmental experiences. When learning activities connect academic exploration with social collaboration, moral

reflection, creativity, and problem-solving, educational experiences become more contextualized, meaningful, and developmentally responsive. This supports the literature on *whole-child pedagogy*, which emphasizes that early childhood learning quality improves when experiences are designed as authentic, multidimensional developmental encounters rather than isolated competency-based tasks (Darling-Hammond, Flook, Cook-Harvey, Barron, & Osher, 2020).

Accordingly, this study argues that transformative early childhood education requires reconstructing pedagogical architecture from fragmented instructional models toward integrated multidimensional developmental frameworks. In such frameworks, cognitive, socio-emotional, moral, spiritual, creative, and digital competencies are not treated as separate objectives but as interdependent dimensions of a unified developmental ecosystem. Holistic integration, therefore, becomes not merely an additional pedagogical principle but the core structural logic of transformative early childhood learning in the digital era.

The findings reveal that digital technology integration in early childhood education remains predominantly instrumental, with technology commonly used as a tool for content delivery, educational entertainment, or classroom engagement rather than as a transformative pedagogical medium. Although such practices represent attempts to adapt to digital educational change, they do not constitute substantive pedagogical transformation. Instrumental digitalization merely modernizes the instructional medium without reconstructing the epistemological, relational, or developmental structures of learning itself (Nikolaeva, Kotliar, & Nikolaev, 2023).

This finding supports Selwyn's critique that many educational digitalization agendas remain trapped in *technological solutionism*, the assumption that the adoption of technology inherently improves educational quality (Pettersson, 2021). In early childhood contexts, this assumption is particularly problematic because it risks encouraging superficial digitalization that treats technology as a marker of pedagogical progress while neglecting its developmental appropriateness. If implemented uncritically, digitalization may reinforce passive pedagogies, increase dependency on instant visual stimulation, and diminish the human interactions essential to early childhood development (Baikulova, 2026).

The study also found that in more pedagogically progressive institutions, digital technology is being repositioned as a reflective and creative learning medium that supports exploration, collaboration, self-expression, and problem-solving. In these contexts, technology does not replace concrete learning experiences or pedagogical relationships; rather, it expands the possibilities of learning through multimodal exploration and enriched interaction (Arnott & Yelland, 2020). This suggests that the

pedagogical value of technology lies not in the devices themselves but in the intentional pedagogical design governing their use.

Based on the synthesis of empirical findings, this study reconstructs the concept of humanistic digital pedagogy as the foundational architecture of transformative holistic learning in the digital era. Humanistic digital pedagogy refers to an approach that positions technology not as the center of learning, but as a pedagogical medium integrated reflectively, ethically, and developmentally to support holistic human growth. Within this framework, technology remains subordinate to developmental goals rather than dictating pedagogical direction. This marks a shift from *technology-driven learning* toward *human-centered digital pedagogy*.

The study identifies three foundational layers of this framework: humanistic-ethical foundations, encompassing pedagogical care, emotional safety, empathy, and relational trust; multidimensional developmental integration, involving the simultaneous cultivation of all developmental domains; and future-oriented digital pedagogy, involving the use of digital tools to foster creativity, collaboration, digital literacy, problem-solving, and critical awareness of digital environments (Stodden, 2023).

The framework extends traditional holistic learning discourse by introducing digital resilience and ethical digital consciousness as essential developmental competencies for twenty-first-century childhood. In increasingly digitized societies, children require more than technological skills; they must develop the capacity to engage in digital environments ethically, critically, safely, and reflectively. Early childhood education, therefore, must prepare children not only to participate in society but also to navigate the moral and epistemic complexities of digital life from the earliest developmental stages. This study contends that the future of early childhood education lies not in increasing technological presence in classrooms, but in reconstructing technology within pedagogical frameworks that preserve human relationality, developmental integrity, and ethical intentionality. The proposed model of humanistic digital pedagogy thus offers both a conceptual and practical contribution to the development of more relevant, ethical, and transformative early childhood education for future generations.

CONCLUSION

This study demonstrates that the transformation of early childhood education in the digital era requires a paradigmatic shift from a *school readiness* orientation toward a *human flourishing* framework that positions children as multidimensional beings whose development extends beyond academic preparedness. The findings reveal that

transformative early childhood education is characterized by the reconstruction of pedagogical purposes, the integration of multidimensional developmental domains within coherent learning architectures, and the reorientation of digital technology from an instrumental teaching aid into a humanistic pedagogical medium. Collectively, these shifts indicate that educational transformation in early childhood contexts cannot be achieved through technological adoption alone but must be grounded in a philosophical and pedagogical redefinition of the aims of education itself.

The study further proposes a reconstructed framework of transformative holistic learning for early childhood education in the digital era, comprising three interdependent dimensions: humanistic-ethical foundations, multidimensional developmental integration, and future-oriented digital pedagogy. This framework extends existing holistic learning discourse by incorporating digital resilience and ethical digital consciousness as essential developmental competencies for contemporary childhood. In doing so, the study contributes to the theoretical advancement of transformative early childhood education by offering an integrative conceptual model that bridges developmental theory, critical pedagogy, and digital-age educational demands.

The findings imply that early childhood institutions should redesign curricula, learning environments, and assessment systems to prioritize whole-child development over narrow academic readiness indicators. Teachers should be supported in transitioning from fragmented instructional practices toward integrated pedagogical designs that simultaneously cultivate cognitive, socio-emotional, moral, creative, and digital capacities. In addition, digital technology integration in early childhood settings should be guided by pedagogical intentionality and ethical considerations, ensuring that technological use enhances relational, reflective, and exploratory learning rather than merely digitizing conventional instruction.

Despite these contributions, this study is limited by its contextual focus on selected early childhood institutions within a specific regional setting, which may constrain broader generalizability. Future research may expand this framework through comparative cross-regional studies, longitudinal child-development analysis, or intervention-based implementation research to further validate and refine the proposed transformative holistic learning model across diverse educational contexts.

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BIBLIOGRAPHY

- Andrianatos, K. (2019). Barriers to reading in higher education: Rethinking reading support . *Reading & Writing* , 10(1), 1-9. <https://doi.org/10.4102/rw.v10i1.241> .
- Archibong, E. I., Afeku-Amenyo, H., Adekunle, O. R., Owusu, R., & Senaye, E. S. (2025). Integrative Pedagogies for Cultivating Wholeness in the 21st Century Child. *Journal of Education, Communication, and Digital Humanities*, 2(1), 77-92. <https://orcid.org/0009-0005-3005-2666>.
- Arnott, L., & Yelland, N. J. (2020). Multimodal lifeworlds: Pedagogies for play inquiries and explorations. *Journal of Early Childhood Education Research*, 9(1), 124-146. <https://journal.fi/jecer/article/view/114126>.
- Baikulova, A. (2026). Leveraging digital interactive didactic games to enhance cognitive development in preschool education. *E-Learning and Digital Media*, 23(1), 1-18. <https://doi.org/10.1177/20427530241261294>.
- Bradbury, A. (2019). Datafied at four: The role of data in the 'schoolification' of early childhood education in England. *Learning, Media and Technology*, 44(1), 7-21.
- Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative research in psychology*, 18(3), 328-352. <https://doi.org/10.1080/14780887.2020.1769238>.
- Burakgazi, S. G. (2025). The ecological model of human development. *Exploring adult education through learning theory*, 325-342. <https://books.google.co.id/books?hl=id&lr=&id>.
- Chen, B.-C. (2025). Using Vygotsky's sociocultural theory to explore ethnic cultural representation in Taiwanese preschool children's play. *Frontiers in Education*, 10, 1569322. <https://doi.org/10.3389/feduc.2025.1569322>.
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied developmental science*, 24(2), 97-140. <https://doi.org/10.1080/10888691.2018.1537791>.
- Duncan, G. J. (2007). School readiness and later achievement . *Developmental psychology* , 43(6), 1428. <https://psycnet.apa.org/fulltext/2007-16709-012.html>.
- Edwards, T. L., Nowicki, S., Marzeion, B., Hock, R., Goelzer, H., Seroussi, H., ... & Zwinger, T. (2021). Projected land ice contributions to twenty-first-century sea level rise. *Nature*, 593(7857), 74-82. <https://doi.org/10.1038/s41586-021-03302-y>.
- ElSayary, A., Mohebi, L., & Meda, L. (2022). The Impact of the Relationship of Social/Emotional, Cognitive, and Behavioral Engagements on Developing Preservice Teachers' Digital Competencies. *J. Inf. Technol. Educ. Res*, 21, 269-295. <https://doi.org/10.28945/4982>.
- Fitriana, S., Rakhmawati, E., Suhendri, S., & KUSDARYANI, W. (2026). Good Touch, Bad Touch: Implementing Lift-The-Flap Book To Enhance Early Sexual Education For Children. *PEDAGOGIK: Jurnal Pendidikan*, 13(1), 42-60.

- Giroux, H. A. (2024). *Teachers as intellectuals: Toward a critical pedagogy of learning*. Torrossa. <https://www.torrossa.com/it/resources/an/6031774>.
- Hafiduddin, M., & Abdullah, A. (2024). Smart Classroom Design For Inclusive Madrasahs: Transforming Curriculum And Digital Learning Environments For Students With Special Needs. *PEDAGOGIK: Jurnal Pendidikan*, 11(2), 292-308.
- Hidayah, H., Qushwa, F. G., Munawwaroh, I., Putri, D. F., & Hasanah, R. (2024). Leadership Transformation and Organizational Strengthening in Improving Collaboration and Operational Effectiveness of Islamic Boarding Schools. *Journal of Social Studies and Education*, 2(1), 54-67.
- Kantar, N., & Bynum, T. W. (2021). Global ethics for the digital age-flourishing ethics . *Journal of Information, Communication and Ethics in Society*, 19(3), 329-344. <https://doi.org/10.1108/JICES-01-2021-0016>.
- Kristjánsson, K. (2020). Aristotelian character friendship as a 'method' of moral education . *Studies in Philosophy and Education*, 39(4), 349-364. <https://link.springer.com/article/10.1007/s11217-020-09717-w>.
- Livingstone, S. M., & Blum-Ross, A. (2020). *Parenting for a digital future: How hopes and fears about technology shape children's lives*. Oxford University Press. <https://books.google.co.id/books?hl=id&lr>.
- Løvlie, L. (2015). John Dewey, phenomenology, and the reconstruction of democracy . *Nordisk tidsskrift for pedagogikk og kritikk*, 1, 01-13. <https://doi.org/10.17585/ntpk.v1.104>.
- Marginson, S., & Dang, T. K. (2017). Vygotsky's sociocultural theory in the context of globalization. *Asia Pacific Journal of Education* , 37(1), 116-129. <https://doi.org/10.1080/02188791.2016.1216827>.
- Mundiri, A., Sain, Z. H., & Khomairohtusshiyamah, U. (2025). Reconstructing Transformational Leadership through Islamic Values: A Model for Improving Institutional Performance in Islamic Education. *Mozaic: Islam Nusantara*, 11(2), 125-136.
- Mundiri, A., & Zakiyah, E. (2025). Building A Value-Based Workforce: Human Resources Management Models For Recruitment In Pesantren. *Jurnal At-Tarbiyat: Jurnal Pendidikan Islam*, 8(3), 764-775.
- Nikolaeva, E., Kotliar, P., & Nikolaev, M. (2023). Revisiting traditional educational practices in the age of digitalization. *Revista on line de Política e Gestão Educacional* , e023057-e023057. <https://periodicos.fclar.unesp.br/rpge/article/view/18527>.
- Noor, H., MR, G. N. K., Sulistiowati, E., Jumiaty, J., & Hafiz, A. (2026). Implementation Of Multicultural Education In Pesantren To Strengthen Santri Character In South Kalimantan. *PEDAGOGIK: Jurnal Pendidikan*, 13(1), 234-248.
- Perron, N. C. (2017). Bronfenbrenner's ecological systems theory . *College student development: Applying theory to practice on the diverse campus* , 197.23, 1-10. <https://books.google.co.id/books?hl>.
- Pettersson, F. (2021). Understanding digitalization and educational change in school by means of activity theory and the levels of learning concept. *Education and Information Technologies*, 26(1), 187-204. <https://link.springer.com/article/10.1007/s10639-020-10239-8>.
- Phillips, D. A., & Shonkoff, J. P. (2000). From neurons to neighborhoods: The science of early childhood development. <https://books.google.co.id/books?hl=id&lr=&id=oZQtR7WIBKgC&oi>.

- Selwyn, N. (2016). Digital downsides: Exploring university students' negative engagements with digital technology. *Teaching in Higher Education*, 21(8), 1006-1021. <https://doi.org/10.1080/13562517.2016.1213229>.
- Simmie, G. M. (2023). Teacher professional learning: a holistic and cultural endeavour imbued with transformative possibility. *Educational review*, 75(5), 916-931. <https://doi.org/10.1080/00131911.2021.1978398>.
- Stodden, D. F. (2023). Holistic functioning from a developmental perspective: A new synthesis with a focus on a multi-tiered system support structure. *Clinical Child and Family Psychology Review*, 26(2), 343-361. <https://doi.org/10.1007/s10567-023-00428-5>.
- Tzuriel, D. (2021). The socio-cultural theory of Vygotsky. *Mediated learning and cognitive modifiability*, 53-66. https://link.springer.com/chapter/10.1007/978-3-030-75692-5_3.
- Warnke, J., & Osterhaus, C. (2026). Mapping Multi-Domain Influences on Theory of Mind: A Systematic Review and Call for Research Action . *Infant and Child Development* , e70080. <https://doi.org/10.1002/icd.70080>.
- Yıldız, K. (2025). The Contribution of Nature-Based to Spiritual Development in Early Childhood: A Conceptual Analysis. *Türkiye Din Eğitimi Araştırmaları Dergisi*, 20, 1-25. <https://doi.org/10.53112/tudear.1783330>.
- Zai, A. F., Showkat, S., & Ahmad, M. R. (2023). Educational progressivism and the 21st century: exploring Dewey's relevance. *International Journal of Research and Analytical Reviews (IJRAR)*, 10(3), 607-614. <https://www.researchgate.net/profile/Asif-Zai/publication>.