Analysis of Educational Game Tools for Enhancing Early Childhood Creativity in SIKL

Qorri Anggraini^{1*}, Asep Kurnia Jayadinata², Dhea Ardiyanti³, Risang Panji Dermawan⁴

^{1,2,3}University of Education Indonesia ⁴Sekolah Indonesia Kuala Lumpur Correspondence Email: qorrianggraini@upi.edu

Received November 12, 2025; Revised December 21, 2025; Accepted December 23, 2025; Available Online December 25, 2025

Abstract:

This study examines the use of Educational Game Tools (EGT) to enhance early childhood creativity at Sekolah Indonesia Kuala Lumpur (SIKL), focusing on the availability of EGT, teacher facilitation strategies, and their impact on children's creative development. The study employed a descriptive qualitative approach, involving two kindergarten teachers and one vice principal of curriculum as participants, with children aged 4-6 years as the subjects of observation. Data were collected through in-depth interviews, participant observation, and document analysis, and were subsequently analyzed using interactive models. The findings indicate that EGT availability is limited, with wooden blocks being the primary material due to space constraints and ongoing building renovations. Teachers employ adaptive facilitation strategies, including observation, the use of openended questions, and the integration of EGT within thematic learning. Despite these limitations, children demonstrate notable creativity, including improvements in fluency and flexibility of thinking, as well as enhanced social skills. This study underscores the significance of creative learning strategies, even when resources are limited.

Abstrak:

Penelitian ini mengkaji penggunaan Alat Permainan Edukatif (Educational Game Tools/EGT) untuk meningkatkan kreativitas anak usia dini di Sekolah Indonesia Kuala Lumpur (SIKL), dengan fokus pada ketersediaan EGT, strategi fasilitasi guru, dan dampaknya terhadap perkembangan kreativitas anak. Penelitian ini menggunakan pendekatan deskriptif kualitatif, dengan melibatkan dua guru taman kanak-kanak dan satu wakil kepala sekolah bidang kurikulum sebagai partisipan, serta anak-anak berusia 4-6 tahun sebagai subjek observasi. Data dikumpulkan melalui wawancara mendalam, observasi partisipatif, dan analisis dokumen, kemudian dianalisis menggunakan model interaktif. Temuan penelitian menunjukkan bahwa ketersediaan EGT terbatas, dengan balok kayu sebagai bahan utama karena keterbatasan ruang dan renovasi bangunan yang sedang berlangsung. Guru menerapkan strategi fasilitasi adaptif, termasuk observasi, penggunaan pertanyaan terbuka, dan integrasi EGT dalam pembelajaran tematik. Meskipun terbatas, anak-anak menunjukkan kreativitas yang nyata, termasuk perkembangan dalam kelancaran dan fleksibilitas berpikir, serta peningkatan keterampilan sosial. Penelitian ini menekankan pentingnya strategi pembelajaran kreatif, meskipun dengan sumber daya yang terbatas.

Keywords:

Educational Games, Children's Creativity, Early Childhood Education, Sekolah Indonesia Kuala Lumpur (SIKL).

How to Cite: Anggraini, Q., Jayadinata, A. K., Ardiyanti, D., & Dermawan, R. P. (2025). Analysis of Educational Game Tools for Enhancing Early Childhood Creativity in SIKL. Lentera Pendidikan: Jurnal Ilmu Tarbiyah dan Keguruan, 28(2), 364-375. https://doi.org/10.24252/lp.2025v28n2i5.

Copyright 2025 © The Author(s)

The work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0)



Introduction

Early childhood is often described as the "golden age," a critical period that lays the foundation for future individual development (Andrivat & Tjasmini, 2024; Rijkiyani, Syarifuddin, & Mauizdati, 2022). Between the ages of 0-6 years, children experience rapid brain development, reaching approximately 80% of their potential and encompassing cognitive, motor, language, social-emotional, and creative domains (Melynda & Hasibuan, 2025). These developmental aspects are interrelated and collectively determine children's readiness to progress to subsequent stages of growth (Lubis, Hasana, Hasanah, Lubis, Siagian, Khairani, & Saputra, 2025). Among these, creativity is particularly salient, understood not only as the capacity to produce novel ideas but also as divergent thinking, adaptability, innovation, and the ability to express concepts effectively (Sukmawati & Rakhmawati, 2023). In early childhood education, creativity is heavily influenced by the quality of stimulation provided through the learning environment and learning media, including Educational Game Tools (EGT). EGT functions as a strategic instrument for promoting exploration, problem-solving, and self-expression (Andriani & Daryati, 2021). However, studies in Indonesia indicate that the limited availability of EGT and play facilities in early childhood institutions constrains the quality of stimulation, thereby inhibiting the development of children's creativity (Krismawati, Dea, Agustina, Priscila, Rumbekwan, & Yusup, 2025). Early childhood teachers often face challenges in providing diverse EGTs tailored to children's developmental needs, which can result in monotonous learning experiences and reduced creative engagement (Musdalifa, Halimah, & Alwi, 2025).

Teachers play a central role in optimizing the use of EGT as facilitators of creative learning. Their responsibilities extend beyond simply providing tools to designing meaningful learning experiences through appropriate facilitation strategies (Asmara, Judijanto, Hita, & Saddhono, 2023; Fatimah, Afifah, Auliani, & Larasati, 2023). The careful selection and application of EGT aligned with children's developmental characteristics have been shown to enhance creative and innovative thinking, as well as social-emotional competencies (Satriana, Putri, Solfiah, Tatminingsih, Sagita, Mayumi, & Pertiwi, 2024). Various EGTs, such as construction blocks and art materials, effectively stimulate

imagination, critical thinking, and self-expression among young learners (Agustin, Fajriyatussa'adah, Rahmawati, & Solihah, 2023; Yusfita, Nazah, & Nurhalizah, 2025). Despite these insights, most prior research focuses on early childhood education within domestic contexts where resources are relatively sufficient. Investigations into the use of EGT in resource-constrained settings, particularly in Indonesian schools abroad, remain limited. Accordingly, this study aims to analyze the use of educational game tools to enhance early childhood creativity at *Sekolah Indonesia Kuala Lumpur* (SIKL), emphasizing the availability of EGT, teacher facilitation strategies, and their impact on children's creative development. The findings are expected to offer both theoretical and practical contributions to early childhood education, particularly by informing the design of adaptive and creative strategies under limited resource conditions.

Research Method

Early childhood is often described as the "golden age," a critical period that lays the foundation for future individual development (Andrivat & Tjasmini, 2024; Rijkiyani, Syarifuddin, & Mauizdati, 2022). Between the ages of 0–6 years, children experience rapid brain development, reaching approximately 80% of their potential and encompassing cognitive, motor, language, social-emotional, and creative domains (Melynda & Hasibuan, 2025). These developmental aspects are interrelated and collectively determine children's readiness to progress to subsequent stages of growth (Lubis, Hasana, Hasanah, Lubis, Siagian, Khairani, & Saputra, 2025). Among these, creativity is particularly salient, understood not only as the capacity to produce novel ideas but also as divergent thinking, adaptability, innovation, and the ability to express concepts effectively (Sukmawati & Rakhmawati, 2023).

In early childhood education, creativity is heavily influenced by the quality of stimulation provided through the learning environment and learning media, including Educational Game Tools (EGT). EGT functions as a strategic instrument for promoting exploration, problem-solving, and self-expression (Andriani & Daryati, 2021). However, studies in Indonesia indicate that the limited availability of EGT and play facilities in early childhood institutions constrains the quality of stimulation, thereby inhibiting the development of children's creativity (Krismawati, Dea, Agustina, Priscila, Rumbekwan, & Yusup, 2025). Early childhood teachers often face challenges in providing diverse EGTs tailored to children's developmental needs, which can result in monotonous learning experiences and reduced creative engagement (Musdalifa, Halimah, & Alwi, 2025).

Teachers play a central role in optimizing the use of EGT as facilitators of creative learning. Their responsibilities extend beyond simply providing tools to designing meaningful learning experiences through appropriate facilitation strategies (Asmara, Judijanto, Hita, & Saddhono, 2023; Fatimah, Afifah, Auliani, & Larasati, 2023). The careful selection and application of EGT aligned with children's developmental characteristics have been shown to enhance creative and innovative thinking, as well as social-emotional competencies (Satriana, Putri, Solfiah, Tatminingsih, Sagita, Mayumi, & Pertiwi, 2024). Various EGTs, such as construction blocks and art materials, effectively stimulate

imagination, critical thinking, and self-expression among young learners (Agustin, Fajriyatussa'adah, Rahmawati, & Solihah, 2023; Yusfita, Nazah, & Nurhalizah, 2025).

Despite these insights, most prior research focuses on early childhood education within domestic contexts where resources are relatively sufficient. Investigations into the use of EGT in resource-constrained settings, particularly in Indonesian schools abroad, remain limited. Accordingly, this study aims to analyze the use of educational game tools to enhance early childhood creativity at Sekolah Indonesia Kuala Lumpur (SIKL), emphasizing the availability of EGT, teacher facilitation strategies, and their impact on children's creative development. The findings are expected to offer both theoretical and practical contributions to early childhood education, particularly by informing the design of adaptive and creative strategies under limited resource conditions. This study employed a descriptive qualitative approach to examine the use of Educational Game Tools (EGT) to enhance early childhood creativity at Sekolah Indonesia Kuala Lumpur (SIKL). This approach was chosen because it enabled the researchers to gain a deeper understanding of the learning process and the role of EGTs in natural classroom contexts. The study participants consisted of three educators: one vice principal for curriculum, one kindergarten A teacher, and one kindergarten B teacher. In addition, the children were observed as subjects rather than as direct respondents; 23 were in kindergarten class A and 20 were in kindergarten class B. Children were observed during learning activities involving EGTs to examine the emergence of creative behaviors, such as exploration, imagination, and problem-solving.

Data were collected through in-depth interviews, direct observation, and documentation. Interviews were conducted with educators to gather information on the types of EGTs used, their frequency of use, and teachers' strategies for stimulating children's creativity. Observation was conducted directly in the classroom to examine children's involvement in play activities while learning to use EGTs. Photographic documentation of learning activities was used as supporting evidence to strengthen the results of observations and interviews. Ethical considerations in this study were addressed by obtaining official permission from the school and approval from the children's teachers and parents. The children's identities were kept confidential, and all observation activities were conducted in a manner that did not interfere with the learning process.

Data analysis was conducted using Miles and Huberman's qualitative data analysis model, which comprised data reduction, data presentation, and conclusion (Qomaruddin & Sa'diyah, 2024; Safarudin, Zulfamanna, Kustati, & Sepriyanti, 2023). Data reduction involved sorting information relevant to the research focus. The presentation of the data was structured as a descriptive narrative to facilitate understanding, while the conclusion was supported by data verification and triangulation to enhance the validity of the findings.

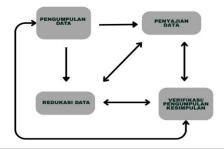


Figure 1. Flow of Miles And Huberman's Qualitative Data Analysis Model

Results and Discussion

Availability and Constraints on the Use of Educational Games in Schools in Indonesia, Kuala Lumpur

Based on the results of in-depth interviews and field observations, the availability of Educational Game Tools (EGT) in kindergartens at *Sekolah Indonesia Kuala Lumpur* (SIKL) is limited. This limitation is primarily due to ongoing renovations of the school building, which require early childhood learning activities to be relocated to a temporary space with restricted capacity and facilities. These conditions affect not only the availability but also the accessibility and variety of EGTs used in learning activities. One teacher explained the challenge of moving EGTs to the temporary space:

"Only the toy blocks were brought here. The other toys we have are old and could not be moved." (Kindergarten A teacher)

The results of the EGT inventory revealed that wooden blocks are the most readily available type of EGT and are the most frequently used by children. Other EGTs, such as puzzles, letter games, and tong bracelet-throwing games, are available only in limited quantities, and some are in suboptimal condition. The use of EGTs other than wooden blocks is infrequent due to their limited availability, the potential for damage, and the risk of loss.

Table 1. Inventory and Conditions of Educational Game Tools (EGT) in SIKL Kindergarten

Types of Educational Game Tools (EGTs)	Availability Level	Condition	Frequency of Use by Children
Wooden Blocks	High	Good	Very frequently
Puzzle	Medium	Poor (easily lost)	Occasionally
Letter Game	Low	Good	Rarely
Ring Toss Game	Medium	Poor (easily damaged)	Infrequently

Source: Observation and interviews (primary data)

In addition to the limitations regarding the types of EGT, observational data revealed constraints related to storage. The limited storage space necessitates that some EGTs be stored in separate locations and used interchangeably, which restricts teachers' flexibility in preparing a diverse range of play activities.

Regarding budget management, the vice principal for curriculum explained that EGT procurement follows the budget submission mechanism through the Education and Cultural Attaché. This process requires administrative approval before implementation. For urgent or specific needs, the school relies on cooperation with the school committee, as illustrated below:

"The school budget comes from the Ministry through the Education and Cultural Attaché, so the procurement must first go through a formal proposal." (Vice Principal for Curriculum)

Despite these limitations, interview findings indicated that teachers implemented additional initiatives and received external support, such as assistance from pre-service teachers and lecturers, to provide simple EGTs that could enhance learning activities.

Teacher Strategies in Facilitating Learning with Limited EGT

Observations and interview data indicate that kindergarten teachers at SIKL employ child-centered facilitation strategies when using the limited EGT available. During play activities, teachers primarily act as observers and facilitators, providing guidance and stimuli rather than directing the activities. One teacher described the approach used while accompanying children in play:

"So far, I mostly observe, sometimes give ideas. For example, with the fishing rod activity, I suggest, 'this can be made like this.'" (Kindergarten Teacher A)

The pattern of teacher-student interaction during EGT play activities is presented in Table 2:

Table 2. Teacher Interaction Patterns during Educational Game Tools (EGT) Play Activities

Interaction Patterns	Description	Implementation Examples	Source
Observation and supervision	Teachers observe children from a distance while allowing freedom of exploration.	"I usually observe and supervise while the children explore on their own."	Kindergarten Teacher B
Idea prompting and stimulation	Teachers provide ideas when children encounter difficulties during play	"Sometimes I give simple ideas to help them continue their play."	Kindergarten Teacher A
Open-ended questions and challenges	Teachers use open- ended questions and simple challenges to stimulate creativity.	"Can you build a tower using the same blocks without it falling?"	Kindergarten Teacher B
Spontaneous and contextual interaction	Teacher interactions emerge spontaneously and adapt to classroom situations.	"The questions often come up spontaneously, depending on what I observe."	Kindergarten Teacher B

Source: Observation and interviews

Teacher interaction patterns during EGT play activities include observing children, providing stimuli, asking open-ended questions, and engaging in spontaneous interactions adapted to the classroom context. Teachers also introduce simple challenges to encourage children to explore multiple possibilities during play. For example, one teacher stated:

"Mom, can you make a tower out of these same blocks that someone can assemble without it falling?" (Kindergarten Teacher B)

Furthermore, teachers integrate EGT into ongoing learning themes. Puzzles are utilized when their images or objects align with the current thematic lesson, while wooden blocks are employed across a variety of learning activities despite their limited quantity.

The Impact of EGT Utilization on the Development of Children's Creativity

Observations indicated that the use of EGT, particularly wooden blocks, elicited various forms of creative behaviour in children. Creativity was demonstrated not only in the outcomes of play but also in the processes of exploration, imagination, and problemsolving. One teacher described the forms of children's creativity that emerged despite the limited play tools as follows:

"Creativity is when they are with limited tools but can create something we never imagined before." (Kindergarten Teacher)

Observational data further indicate that children can repurpose a single type of EGT for multiple game activities, create original forms that do not necessarily follow provided examples, and enhance their creations by incorporating additional elements. The manifestation of children's creativity, based on Torrance's dimensions, is presented in Table 3:

Table 3. The Embodiment of Children's Creativity in Playing Educational Game Tools (EGT)

k is used as three to four different
e arranged to form a path and
jumping tool
ng is transformed into a hat
ructures with limited detail

Source: Observation

In addition to the cognitive aspects of creativity, observational findings indicate a positive impact on children's social development. Despite the limited availability of EGTs, children demonstrated the ability to share, take turns, and engage cooperatively with their peers. Teachers noted that these conditions foster social interaction during play activities, as illustrated by the following observation:

"With limited toys and a lot of children, they have to learn to share and play together." (Kindergarten Teacher)

Discussion: Dynamics of Creativity in the Context of Limitations

The findings of this study indicate that children at Kindergarten Sekolah Indonesia Kuala Lumpur (SIKL) were able to develop creative expressions despite the limited availability and variety of Educational Game Tools (EGT). This demonstrates that creativity does not depend solely on the abundance of learning resources; rather, it emerges from meaningful interactions among children, learning materials, and pedagogical facilitation within a specific learning context.

Creativity Emerging from Limitations

The predominance of wooden blocks as the primary EGT unexpectedly stimulated diverse forms of creative expression (Suryana & Desmila, 2022). Children did not merely construct conventional structures but also transformed the blocks into various symbolic objects through their imagination. This observation aligns with constructivist learning theory, which emphasizes active knowledge construction through direct engagement with materials. Consistent with prior research conducted in low-resource learning environments, these findings suggest that limited materials can foster divergent thinking and flexible problem-solving when supported by appropriate pedagogical strategies. Moreover, this finding supports Vygotsky's concept of scaffolding, in which temporary guidance from teachers enables children to perform beyond their current independent capabilities (Hidayat, Kulsum, Adibah, & Damayanti, 2024; Kurniati, 2025). In this context, resource limitations functioned not as constraints but as catalysts for adaptive and flexible thinking patterns.

Social Learning Processes under Resource Constraints

Another significant finding concerns the emergence of social competencies as an indirect outcome of limited EGT availability. The scarcity of play materials required children to share, take turns, and collaborate with peers (Prabandari & Fidesrinur, 2021). This observation aligns with Vygotsky's social development theory, which emphasizes the central role of social interaction in cognitive and socio-emotional development (Etnawati, 2021; Judijanto, 2025). Consistent with previous research, these findings suggest that resource-constrained learning environments may enhance social engagement and cooperative behaviors among children.

Teachers' Role in Facilitating Creative Learning

The dominant role of teachers as facilitators rather than direct instructors proved effective in fostering creativity. By allowing freedom of exploration while providing openended questions and minimal guidance, teachers created a psychologically safe environment that encouraged experimentation and idea generation. This pedagogical approach aligns with the theory of multiple intelligences, which recognizes diverse learning pathways and individual strengths (Ardiana, 2022; Ibrahim, Solekha, Kanada, Setyaningsih, & Zulkipli, 2023). Compared with more directive instructional methods reported in prior studies, facilitative teaching in this context appeared to better support children's creative autonomy (Zulfa, Trianggono, & Ashadi, 2025).

Balancing Creative Achievement and Developmental Challenge

Based on Torrance's framework of creativity, the findings indicate high levels of fluency and flexibility, while elaboration remained relatively underdeveloped. This pattern is consistent with Torrance's assertion that, in environments with limited stimuli, children tend to generate multiple ideas but may face challenges in developing them in greater detail (Rofi'ah, Khotimah, & Lestari, 2023). These results highlight the need for instructional strategies that specifically support elaborative thinking without compromising creative freedom.

Implications for Early Childhood Education Practice

Overall, this study underscores that limited educational resources do not inherently impede the development of creativity. Rather, when paired with effective facilitation and adaptive teaching strategies, such constraints can stimulate both creative thinking and social competence. Nonetheless, institutional support remains crucial to ensure balanced stimulation across all dimensions of creativity, including fluency, flexibility, originality, and elaboration. These findings contribute to the broader discourse on early childhood education by highlighting the significance of pedagogical quality over material abundance, particularly in resource-limited educational contexts. This research suggests that teachers' strategic guidance, the thoughtful integration of available materials, and the promotion of exploratory play can effectively foster creativity, even under constrained conditions.

Conclusion

Based on the research findings and discussion, it can be concluded that the use of Educational Game Tools (EGT) at Sekolah Indonesia Kuala Lumpur (SIKL) supports the development of early childhood creativity despite limited facilities. The predominance of wooden blocks as the primary EGT, resulting from limited storage space and ongoing school building renovations, encourages teachers to implement adaptive facilitation strategies. Approaches such as observation, open-ended questioning, and providing simple challenges have proven effective in stimulating children's creativity, particularly in fluency and flexibility of thinking. Moreover, the limitations of EGT also contribute to the development of children's social skills, including sharing, cooperation, and interaction with peers. This study has several limitations, including its single-institution context and the relatively small number of participants. Therefore, the findings cannot yet be broadly generalized across the early childhood education landscape. Nonetheless, the results have important implications for early childhood education practices, particularly in resourceconstrained settings. The study confirms that children's creativity is not solely dependent on the availability of materials but is strongly influenced by teacher facilitation strategies and the effective management of the learning environment. More broadly, these findings can inform the development of early childhood education policies that promote creative and adaptive learning across diverse educational contexts.

Teachers are encouraged to continue developing creative learning strategies by utilizing local and open-ended materials. Schools are advised to establish a more

systematic EGT management system and build partnerships with communities or relevant stakeholders to support EGT procurement. Further research should involve a more diverse range of school contexts and aim to develop a comprehensive model for assessing children's creativity, particularly under conditions of limited resources.

Acknowledgments

The authors would like to express sincere gratitude to the Principal of Sekolah Indonesia Kuala Lumpur (SIKL) and all staff, as well as the teachers of Kindergarten A and B, for their support and cooperation throughout this research. Special thanks are extended to the children of Kindergarten SIKL who actively participated and contributed to this study. The authors also acknowledges the guidance, input, and support provided by the supervisors during the research process. This research received no external funding, and all costs related to the study and publication, including open-access fees, were independently covered by the authors.

Ethical Statement

The authors declare that the submitted manuscript is original, free from plagiarism, duplication, or copyright infringement, and has not been published elsewhere. This manuscript is also not under consideration for publication in any other journal.

CRediT Author Statement

- Author 1: Conceptualization, Methodology, Validation, Resources, Formal analysis, Writing - Original draft preparation, and Writing -Reviewing and Editing.
- Author 2: Conceptualization, Methodology, and Validation
- Author 3: Conceptualization, Methodology, and Validation
- Author 4: Conceptualization, Methodology, Validation, Resources, and Writing -Reviewing and Editing.

Conflict of Interest

The authors declare that they have no financial interests or personal connections that could have affected the work presented in this article.

Data Availability

The datasets generated and analyzed during the current study are available upon reasonable request.

References

- Agustin, E. T., Fajriyatussa'adah, F., Rahmawati, I., & Solihah, S. (2023). Meningkatkan kemampuan motorik halus anak usia dini melalui balok susun interaktif di sekolah alam pangandaran. *Edu Happiness: Jurnal Ilmiah Perkembangan Anak Usia Dini*, 2(2), 149–161. https://doi.org/10.62515/eduhappiness.v2i2.203.
- Andriani, J., & Daryati, M. E. (2021). Pengaruh penggunaan ape puzzle terhadap perkembangan motorik halus anak usia dini: studi literatur. *Research in Early Childhood Education and Parenting*, 2(1), 33–40. https://doi.org/10.17509/recep.v2i1.30670.
- Andrivat, Z., & Tjasmini, M. (2024). Pendidikan karakter: membangun fondasi moral dan etika melalui pendidikan anak usia dini. *Action Research Journal Indonesia (ARJI)*, 6(2), 76–87. https://doi.org/10.61227/arji.v6i2.164.
- Ardiana, R. (2022). Pembelajaran berbasis kecerdasan majemuk dalam pendidikan anak usia dini. *Murhum: Jurnal Pendidikan Anak Usia Dini, 3*(1), 1–12. https://doi.org/10.37985/murhum.v3i1.65.
- Asmara, A., Judijanto, L., Hita, I. P. A. D., & Saddhono, K. (2023). Media pembelajaran berbasis teknologi: apakah memiliki pengaruh terhadap peningkatan kreativitas pada anak usia dini? *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 7(6), 7253–7261. https://doi.org/10.31004/obsesi.v7i6.5728.
- Etnawati, S. (2021). Implementasi teori vygotsky terhadap perkembangan bahasa anak usia dini. *Jurnal Pendidikan*, *22*(2), 130–138. https://doi.org/10.52850/jpn.v22i2.3824.
- Fatimah, F. N., Afifah, H. U. N., Auliani, R., & Larasati, S. A. (2023). Alat permainan edukatif sebagai sumber dan media pembelajaran anak usia dini. *Raudhatul Athfal: Jurnal Pendidikan Islam Anak Usia Dini, 7*(1), 44–56. https://doi.org/10.19109/ra.v7i1.15436.
- Hidayat, A., Kulsum, U., Adibah, I. H., & Damayanti, D. D. (2024). Teori vygotsky dan transformasi pembelajaran matematika: sosiokultural, scaffolding, zona perkembangan proksimal, bahasa dan pikiran. *ResearchGate*. https://www.researchgate.net/publication/387089683_Teori_Vygotsky_Dan_Transformasi_Pembelajaran_Matematika_Sosiokultural_Scaffolding_Zona_Perkembangan_Proksimal_Bahasa_Dan_Pikiran.
- Ibrahim, Solekha, M. N., Kanada, R., Setyaningsih, K., & Zulkipli. (2023). Penerapan kecerdasan majemuk dalam pembelajaran. *Lencana: Jurnal Inovasi Ilmu Pendidikan*, 1 No. 4(4), 23. https://doi.org/10.55606/lencana.v1i4.2255.
- Judijanto, L. (2025). Integrasi psikologi pendidikan dalam pengembangan pendidikan kontemporer: suatu tinjauan sintesis teoretis. *PESHUM : Jurnal Pendidikan, Sosial Dan Humaniora*, 4(3), 4371–4390. https://doi.org/10.56799/peshum.v4i3.8963.
- Krismawati, M., Dea, D., Agustina, R., Priscila, J. M., Rumbekwan, J. I., & Yusup, W. B. (2025). Kreativitas guru paud dalam menghadapi keterbatasan sarana dan prasarana di tk negeri pembina jekan raya. *Jurnal Pendidikan Anak Usia Dini, 2*(4), 9. https://doi.org/10.47134/paud.v2i4.1804.
- Kurniati, E. (2025). Teori sosiokultural vygotsky untuk anak usia dini. *Jurnal Studi Pendidikan Anak Usia Dini*, 1(1), 19–24. https://www.putrapublisher.org/ojs/index.php/jspaud/article/view/703.

- Lubis, R., Hasana, T. F., Hasanah, P., Lubis, I. N., Siagian, A. A., Khairani, Y. D., & Saputra, M. E. (2025). Karakteristk perkembangan anak usia sekolah tk (0-5) tahun. Harmoni Pendidikan: Iurnal Ilmu Pendidikan. 2(2). 21-33. https://doi.org/10.62383/hardik.v2i2.1227.
- Melynda, D. R., & Hasibuan, R. (2025). Stimulasi pertumbuhan dan perkembangan anak usia dini secara fisik dan mental. Jurnal Mutiara Pendidikan, 5(1), 247-258. https://doi.org/10.29303/jmp.v5i1.8671.
- Musdalifa, U., Halimah, A., & Alwi, B. M. (2025). Analisis kreativitas peserta didik dalam menggunakan alat permainan edukatif (ape) balok susun berwarnadi tk. LEARNING: Jurnal Inovasi Penelitian Pendidikan Dan Pembelajaran, 5(2), 464-475. https://doi.org/10.51878/learning.v5i2.4871.
- Nur Indah Sukmawati, & Nur Ika Sari Rakhmawati. (2023). Pengaruh pembelajaran steam (science, technology, engineering, art, and mathematic) untuk meningkatkan keterampilan berpikir tingkat tinggi (critical thinking and problem solving) pada anak usia dini. Concept: Journal of Social Humanities and Education, 2(1), 127-141. https://doi.org/10.55606/concept.v2i1.238.
- Prabandari, I. R., & Fidesrinur, F. (2021). Meningkatkan kemampuan bekerjasama anak usia 5-6 tahun melalui metode bermain kooperatif. *Jurnal Anak Usia Dini Holistik* Integratif (AUDHI), 1(2), 96. https://doi.org/10.36722/jaudhi.v1i2.572.
- Qomaruddin, Q., & Sa'diyah, H. (2024). Kajian teoritis tentang teknik analisis data dalam penelitian kualitatif: perspektif spradley, miles dan huberman. Journal of Management, Accounting, and Administration, 77-84. 1(2), https://doi.org/10.52620/jomaa.v1i2.93.
- Rijkiyani, R. P., Syarifuddin, S., & Mauizdati, N. (2022). Peran orang tua dalam mengembangkan potensi anak pada masa golden age. Journal Basicedu, 6(3), 4905-4912. https://doi.org/10.31004/basicedu.v6i3.2986.
- Rofi'ah, U. A., Khotimah, N., & Lestari, P. I. (2023). Pengukuran kreatifitas anak usia dini menurut e.p. torrance. Alzam: Journal of Islamic Early Childhood Education, 3(1), 40-55. https://doi.org/10.51675/alzam.v3i1.526.
- Safarudin, R., Zulfamanna, Z., Kustati, M., & Sepriyanti, N. (2023). Penelitian Kualitatif. Innovative: Journal of Social Science Research, 3(2), 9680-9694. Retrieved from https://j-innovative.org/index.php/Innovative/article/view/1536.
- Satriana, M., Putri, A. P., Solfiah, Y., Tatminingsih, S., Sagita, A. D. N., Mayumi, D. S., & Pertiwi, R. P. (2024). Innovation of educational table game tools in stimulating developmental aspects of early childhood. Jurnal Pendidikan Anak Usia Dini *Undiksha*, 12(3), 439–445. https://doi.org/10.23887/paud.v12i3.85655.
- Survana, D., & Desmila. (2022). Mengembangkan kreativitas anak melalui kegiatan bermain balok. PAUD Lectura: Jurnal Pendidikan Anak Usia Dini, 5(02), 143-153. https://doi.org/10.31849/paud-lectura.v5i02.8632.
- Yusfita, M., Nazah, P. R., & Nurhalizah, S. (2025). Strategi permainan edukatif untuk menstimulus perkembangan kognitif anak usia dini. Jurnal Pendidikan Anak Usia *Dini*, 5(1), 22–33. https://doi.org/10.38153/alhanin.v5i1.209.
- Zulfa, F. I., Trianggono, M. M., & Ashadi, F. (2025). Teachers' instructional strategies in developing early childhood creativity: insights from gradation colouring activities. PEDAGOGIK: Iurnal Pendidikan, 12(1), 110-126. https://doi.org/10.33650/pjp.v12i1.11317.