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# Learning environment as a human-centered system for optimizing gifted and talented childhood potential

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**Abstract**

**Background:** Gifted and talented children possess exceptional intellectual and creative potential that requires appropriate environmental support to be optimally developed. Beyond innate ability, the learning environment plays a decisive role in mediating interactions between children's characteristics, instructional practices, and learning experiences. However, studies that conceptualize the learning environment as a human-centered system supporting gifted childhood development remain limited, particularly within early childhood education contexts.

**Aims:** This study aims to examine how learning environments function as human-centered systems in optimizing the potential of gifted and talented children, with emphasis on physical, psychological, and social environmental dimensions.

**Method:** This study employed a Systematic Literature Review approach guided by PRISMA procedures. A total of 23 international journal articles and one academic book indexed in Scopus, ScienceDirect, and Google Scholar were analyzed using thematic synthesis. The analysis focused on identifying key environmental dimensions, human factors, and their roles in supporting gifted childhood development.

**Results:** The findings reveal three interrelated dimensions of learning environments that support gifted potential: physical environments that provide adequate resources and learning spaces, psychological environments that foster motivation and emotional security, and social environments characterized by competent teachers and supportive relationships. These dimensions interact dynamically to facilitate academic excellence, creativity, and socio-emotional development in gifted children.

**Conclusion:** The learning environment functions as a human-centered system that mediates the development of gifted and talented children. Optimizing gifted potential requires the integration of physical, psychological, and social environmental supports within early childhood education.

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## INTRODUCTION

Gifted and talented children are individuals who possess intellectual potential significantly above that of their age peers, typically manifested through high levels of intellectual intelligence, outstanding creativity, and rapid and deep learning abilities (Al-Oweidi & Freihat, 2020; Reneng Ayomi et al., 2021; Franklin Smutny et al., 2015; Harrison, 2004). Various terms are used to describe this group, such as intelligent, superior, genius, gifted, and gifted and talented, reflecting the diversity of characteristics and conceptual approaches in understanding giftedness (Amka et

al., 2021; Plucker & Barab, 2005; Machů, 2015). In addition to cognitive excellence, gifted students often demonstrate strong dimensions of emotional intelligence, making teachers' ability to recognize individual characteristics a key factor in supporting their optimal development (Loyola et al., 2020; Ericsson et al., 2016; Syafril et al., 2020).

The development of gifted children is not determined solely by internal factors such as talent or genetics, but is also strongly influenced by external factors, particularly the environment in which children grow and learn (Plucker & Barab, 2005; Rohmadheny & Saputra, 2017). Different environments can have significant effects on the process of actualizing gifted potential, including academic achievement, creativity, and social adjustment (Jarvis et al., 2022; Thomas, 2018). Gifted potential as a biological endowment requires appropriate environmental support to develop optimally, encompassing the family environment, peer interactions, and formal educational institutions (Syafril et al., 2020).

The learning environment is one of the key external factors in optimizing the potential of gifted children. It includes physical, social, and psychological aspects that shape children's learning experiences in their daily activities. A supportive environment enables children to explore ideas, develop creativity, and actively engage in the learning process through actions and direct experiences (Coates et al., 2009; Guo et al., 2021; Ujianti, 2021). Providing an optimal learning environment therefore becomes a fundamental requirement for gifted children so that their cognitive potential and creativity can be fully realized (Bildiren et al., 2020; King, 2022).

The quality of the learning environment is closely related to the readiness of the education system to respond to the special needs of gifted children. Insufficient educational services may negatively affect both academic achievement and learning well-being among gifted learners (Setiyatna & Melati, 2021; Wellisch, 2019). Qualified teachers, challenging instructional programs, and adequate school resources are critical factors in creating a learning environment that supports the development of gifted children (Al-Oweidi, 2019; Plucker et al., 2004). In the Indonesian context, learning needs of gifted children have not yet been fully met due to limited teacher preparedness, inadequate facilities and infrastructure, and insufficient financial support (Hamidah et al., 2020; Ngaisah et al., 2023).

Empirical studies on the learning environments of gifted children remain relatively limited, particularly those that explicitly examine the environment as a system mediating interactions between children's characteristics, instructional practices, and learning experiences. International research indicates that studies on gifted learning environments are concentrated in specific countries, with a dominance of research from the United States, while contributions from developing countries remain scarce. Bibliometric data analyses show that keywords such as gifted child, gifted students, school environment, and gifted and talented have been widely used in global research. However, the relationship between learning environments and the optimization of gifted potential has not been examined in a comprehensive and integrated manner.

Previous studies have tended to focus on identifying characteristics of gifted children or their academic achievements, with limited attention to how learning environments are designed and utilized as key supporting factors for gifted development. Approaches that integrate the learning environment as a means of developing gifted potential are still rarely found, particularly within the Indonesian educational context. This gap highlights the need for research that positions the learning environment as a strategic element in supporting the holistic actualization of gifted potential, as emphasized in Gagné's Differentiated Model of Giftedness, which underscores the role of environmental factors as catalysts for ability development (Miedijensky, 2018).

This study aims to analyze the role of the learning environment in optimizing the potential of gifted and talented children by examining how the characteristics of learning environments

support academic excellence, creativity, and intellectual challenge. This study is expected to make a conceptual contribution by positioning the learning environment as a human-centered system that mediates interactions among children, teachers, and learning experiences. Theoretically, it enriches the discourse on gifted education through the integration of learning environment perspectives and human-centered education. Practically, the findings are expected to serve as a reference for educators and policymakers in designing learning environments that are responsive to the needs of gifted children.

## METHOD

This study employed a Systematic Literature Review (SLR) approach to identify, examine, and synthesize scientific findings related to the learning environments of gifted and talented children. The SLR method was selected because it enables a systematic, transparent, and replicable review of the literature, thereby providing a comprehensive understanding of existing research patterns, trends, and gaps (Triandini et al., 2019). The literature search and selection process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure clarity in the stages of identification, screening, eligibility, and inclusion of studies. A detailed flow of the literature selection process is presented in Figure 1.

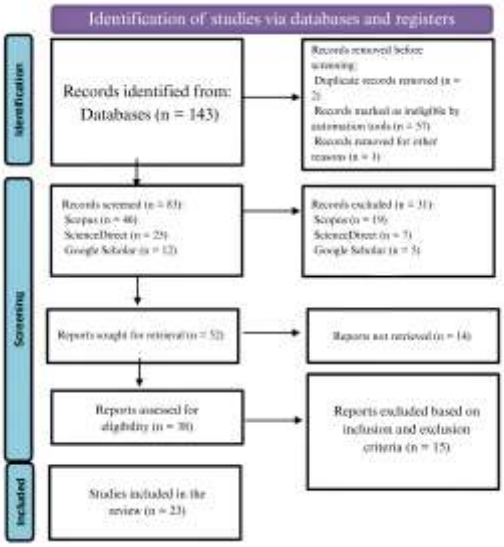


**Figure 1.** Literature Selection Process Using the PRISMA Methodology

The unit of analysis in this study did not involve direct human participants but consisted of scholarly articles and academic sources relevant to the research focus. The analyzed literature comprised 23 accredited international journal articles and one academic book retrieved from the Scopus, ScienceDirect, and Google Scholar databases. These articles were published in reputable journals across quartile rankings from Q1 to Q4. Literature selection was conducted through two main stages, namely the initial identification of all potentially relevant publications based on predefined keywords, followed by a screening process to ensure alignment with the research objectives.

The primary research instruments consisted of a systematically developed search protocol and data extraction forms designed to collect key information from each selected source. The keywords used in the search process included “gifted learning environment”, “learning environment gifted preschool”, and “gifted preschool”. Each article that met the inclusion criteria was analyzed based on several aspects, including research context, methodological approach,

focus on learning environment characteristics, and implications for the development of gifted children's potential. The use of this protocol aimed to maintain consistency and objectivity throughout the literature data collection process.

Data analysis was conducted using a qualitative descriptive approach through thematic synthesis. Findings from each selected study were examined to identify major themes related to the characteristics of learning environments, the role of human factors in gifted education, and forms of environmental support for optimizing both cognitive and non-cognitive potential in gifted children. The synthesized results were then used to map research trends, identify gaps in the literature, and formulate theoretical and practical implications for the development of learning environments for gifted children within the context of early childhood education.

## RESULT AND DISCUSSION

This section presents the research findings obtained through the Systematic Literature Review process as described in the methodology section. The identification, screening, and selection of literature using the PRISMA protocol resulted in 23 international journal articles and one academic book relevant to the study of learning environments for gifted and talented children. The selected literature represents developments across countries, publication periods, and diverse theoretical approaches that position the learning environment as a key factor in the development of gifted potential.

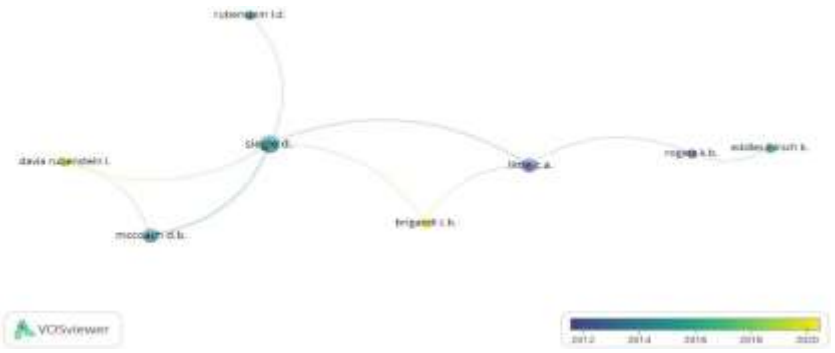

**Figure 2.** Researchers studying the school environment of gifted and talented children (gifted and talented childhood)

The author network mapping presented in Figure 2 indicates that studies on gifted learning environments are dominated by researchers from the United States, with relatively strong connections to scholars from Canada, Australia, Turkey, and Israel. This network pattern suggests that scholarly development in the field of gifted learning environments remains concentrated in specific regions with well-established traditions in gifted education research. The interconnectedness among authors also reflects continuity in scholarly contributions over time, indicating a sustained research focus on the characteristics of gifted children and school-based environmental contexts.

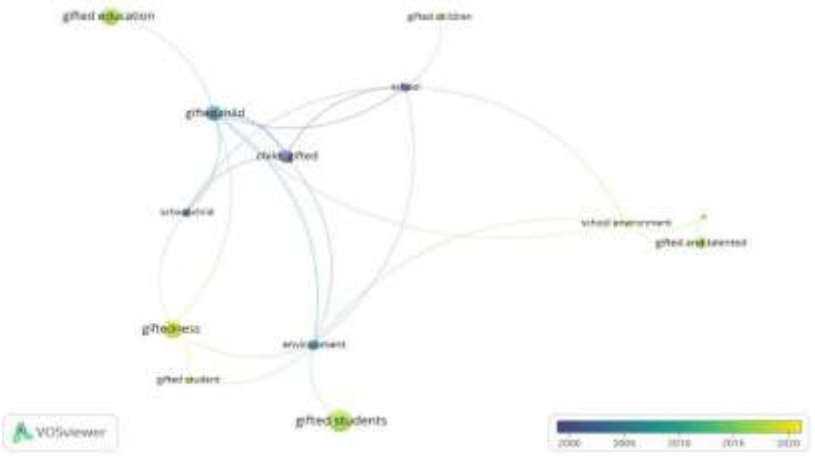


**Figure 3.** Keywords Referring to the Learning Environment of Gifted and Talented Children (Gifted and Talented Childhood) by Researchers Worldwide (Scopus Database)

The keyword co-occurrence analysis shown in Figure 3 reveals that the terms gifted child, gifted students, school, school environment, and environment function as central nodes within the research network. The interconnections among these keywords demonstrate that the learning environment is positioned as an inseparable context from the individual characteristics of gifted children. The school environment emerges as the primary setting where interactions between children's intellectual potential and learning experiences are formed through formal instruction, social interaction, and classroom management.

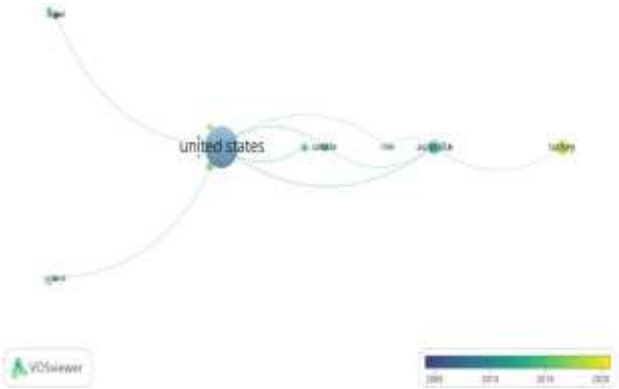


**Figure 4.** Countries researching the learning environment of gifted and talented children

The distribution of countries contributing to the research, as illustrated in Figure 4, highlights the dominance of the United States as the primary contributor to studies on gifted learning environments. Contributions from developing countries, including Indonesia, remain relatively limited. This finding underscores a geographic gap in research on gifted learning environments and highlights strategic opportunities for contextual studies in developing countries to broaden global perspectives in the field of gifted education.

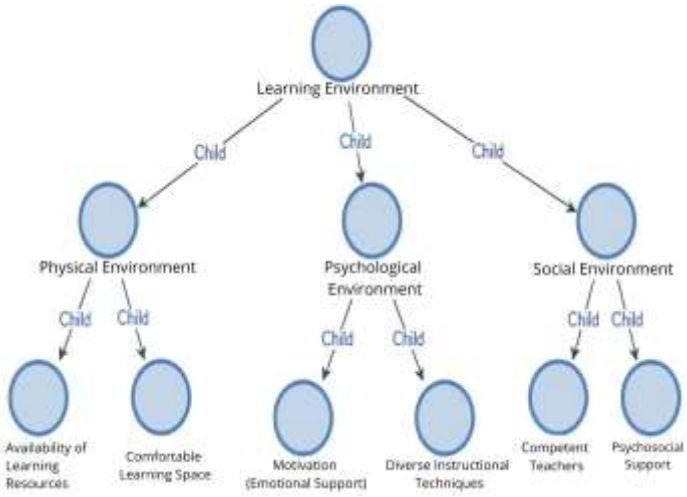


**Figure 5.** Conceptual Model of Learning Environment Dimensions for Gifted Children

The thematic synthesis of the selected literature, supported by NVivo 12.0 software, resulted in the identification of three main dimensions of learning environments that play a role in optimizing the potential of gifted children. The conceptual model derived from this synthesis is presented in Figure 5. These three dimensions consist of the physical environment, psychological environment, and social environment, which interact dynamically to shape the holistic learning experiences of gifted children.

The physical environment includes the availability of learning resources and comfortable learning spaces that support children's intellectual exploration. The analyzed literature indicates that adequate facilities and flexibly designed learning spaces contribute to improved concentration, creativity, and learning comfort among gifted children. Conversely, inadequately supportive physical environments may hinder the actualization of gifted potential despite high levels of intellectual ability.

The psychological environment relates to learning motivation, emotional support, and the variety of instructional techniques applied in the learning process. The findings indicate that gifted children require learning climates that are intellectually challenging yet emotionally safe, enabling them to explore ideas, take intellectual risks, and develop self-regulation. Pedagogical approaches that are responsive to individual needs play a critical role in maintaining engagement and sustaining learning continuity.

The social environment encompasses the role of competent teachers, positive interpersonal relationships, and ongoing psychosocial support. Teachers who understand the characteristics of gifted children and are capable of implementing differentiated instructional strategies serve as key factors in supporting both academic and socio-emotional development. Social support within the school environment functions as a human factor that mediates learning success and the development of gifted potential.

Overall, the findings indicate that the optimization of gifted children's potential results from dynamic interactions among physical, psychological, and social environments. These findings emphasize that learning environments oriented toward human factors play a central role in supporting the comprehensive development of gifted children, extending beyond educational approaches that focus solely on academic enrichment. Based on these results, the discussion

further elaborates on how learning environments function as external factors that mediate interactions between the individual characteristics of gifted children and their learning experiences, as well as the implications for holistic potential development.

The results of this review confirm that optimizing the potential of gifted and talented children cannot be separated from the role of the learning environment as an external factor that mediates interactions between individual characteristics and learning experiences. These findings align with the view that gifted development is determined not only by innate intellectual capacity but also by the quality of the environment in which children grow and learn (Plucker & Barab, 2005; Rohmadheny & Saputra, 2017; Jarvis et al., 2022; Thomas, 2018; Syafril et al., 2020). The learning environment functions as a system that enables the biological potential of gifted children to be actualized through meaningful and sustained learning experiences.

Analysis of the literature indicates that the physical environment serves as a foundational element in supporting gifted learning. Schools are viewed as dynamic spaces that indirectly yet significantly influence children's development (Montag et al., 2018; Weyringer, 2013). Well-designed, comfortable, and resource-rich physical environments allow gifted children to explore ideas, maintain focus, and optimally express creativity. The availability of financial resources and supporting facilities has been shown to contribute to the success of gifted education programs (Coates et al., 2009; Dağliğlu et al., 2019). These findings reinforce the argument that providing appropriate and disruption-free learning environments supports both psychological well-being and learning quality among gifted children (Aşik & Zelyurt, 2021; Wellisch, 2019). Institutionally supported programs with adequate funding further expand opportunities for gifted children to develop academic achievement and creativity (Subotnik et al., 2011; Kettler et al., 2017). Warm and responsive classroom environments foster learning climates that encourage acceptance, intellectual risk-taking, and sustained growth (Spiteri, 2022; Jawabreh et al., 2022).

Beyond physical aspects, the psychological environment emerges as a key dimension in the development of gifted potential. Gifted children often exhibit heightened emotional sensitivity and complex psychological needs, particularly those with challenging childhood experiences or specific developmental differences (Spiteri, 2022; Subotnik et al., 2011). Supportive psychological environments provide space for the development of motivation, self-regulation, and a sense of security in exploring children's interests and talents (Mammadov, 2015). Both intrinsic and extrinsic motivation play crucial roles in academic success and the actualization of gifted potential (Subotnik et al., 2011). Innovative and challenging instructional methods have been shown to enhance engagement and strengthen learning motivation among gifted children (Nagy & Papp, 2013; Spiteri, 2022). Preschool learning environments that consistently offer intellectual challenges, emotional support, and opportunities for exploration promote the development of creativity and intelligence.

Diversity in instructional techniques constitutes an integral component of an effective psychological environment for gifted children. Differentiated learning through individualization, acceleration, and advanced curricula enables children to learn according to their pace, depth, and learning styles (Kettler et al., 2017; Mammadov, 2015). Acceleration is regarded as an appropriate strategy for gifted learners when applied proportionally and contextually (Subotnik et al., 2011). Flexible, child-centered curricula tailored to both academic and psychological needs contribute to motivating and meaningful learning environments (Jawabreh et al., 2022; Kahveci & Güneyli, 2023; Nordström, 2022; Brigandi et al., 2018; Yunus et al., 2013). Integrative pedagogical approaches that combine multiple areas of expertise have also been found effective in addressing the complex needs of gifted children (Al-odat et al., 2020; Bildiren et al., 2020; Gierczyk, 2021).

The social environment complements the previous dimensions by providing interactional contexts that support the social and emotional development of gifted children. The social environment serves as a space in which learning experiences and well-being are shaped through relationships with teachers, peers, and the school community (Kettler et al., 2017). Adequate social support helps gifted children develop interpersonal skills, emotional adjustment, and a sense of belonging within the learning environment (Mammadov, 2015). Teachers with specialized competencies in gifted education play a central role in creating social environments that are conducive and responsive to individual needs (Brigandi et al., 2018; Gierczyk, 2021; Papadopoulos, 2021; Subotnik et al., 2011). Effective teachers of gifted learners demonstrate not only cognitive expertise but also creativity, empathy, and sensitivity to the emotional needs of gifted children (Miedijensky, 2018; Novak et al., 2020).

Previous studies emphasize that emotional stability and the quality of social relationships are primary priorities in early childhood education, particularly for gifted children (Wellisch, 2019; Wellisch & Brown, 2012). When children's intellectual and social needs are unmet, the risk of emotional and behavioral difficulties increases (Papadopoulos, 2021). Conversely, placing gifted children in appropriate social environments, including grouping with peers of similar abilities, has been shown to enhance feelings of acceptance and reduce loneliness (Kahveci & Güneyli, 2023). Supportive social environments, both within and beyond school settings, constitute critical factors in the maturation process and long-term actualization of gifted potential (Coates et al., 2009; Nordström, 2022).

Overall, this discussion reinforces the argument that learning environments should be understood as integrated systems encompassing physical, psychological, and social dimensions in supporting the development of gifted children. These findings align with the human-centered education perspective, which positions learning environments as human factors that mediate interactions among children, teachers, and learning experiences. The optimization of gifted potential can only be achieved when these three environmental dimensions are designed and managed synergistically to support children's intellectual, emotional, and social development in a holistic manner.

## CONCLUSIONS

The findings of this review confirm that the learning environment plays a strategic role in optimizing the potential of gifted and talented children through the integration of physical, psychological, and social dimensions. Learning environments that are intentionally designed and responsive to the characteristics of gifted children have been shown to support academic excellence, creativity, and children's readiness to engage with more complex intellectual challenges. The optimization of gifted potential does not rely solely on innate intellectual capacity, but is strongly influenced by the quality of learning facilities, teacher competence in understanding the specific needs of gifted learners, the diversity of pedagogical approaches, and sustained social and emotional support. In this sense, the learning environment functions as a human-centered system that mediates interactions among children, teachers, and learning experiences, thereby enabling a more holistic and sustainable actualization of gifted potential.

The implications of this study highlight the importance of designing adaptive and differentiated learning environments in gifted education, both at the policy level and in classroom practice. Practically, educators and educational administrators need to maintain a balance between the provision of adequate physical resources, a psychological climate that supports motivation and self-regulation, and a social environment that is safe and inclusive. Theoretically, these findings reinforce perspectives that position the learning environment as a primary catalyst

in the development of giftedness. The limitation of this study lies in its literature-based scope, which does not directly capture empirical dynamics within local contexts. Therefore, future research is recommended to examine the implementation of learning environments for gifted children through field-based studies, longitudinal approaches, or by integrating the role of technology and instructional media as components of learning environment systems that support the optimization of gifted potential.

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## AUTHOR CONTRIBUTION STATEMENT

AEM was responsible for conceptualizing the study, conducting the systematic literature review. Then, SS was performing data synthesis and analysis, and AHR was drafting the manuscript. The authors reviewed and approved the final version of the manuscript.

## CONFLICTS OF INTEREST

The authors declares that no financial, institutional, or personal relationships influenced the conduct or interpretation of this systematic literature review.

## REFERENCES

Al-odat, A. M., Abu Ghazal, M. M., & Al-Hamouri, F. A. (2020). Perfectionism and academic self-handicapped among gifted students. *International Journal of Educational Psychology, 9*(2), 195–222. https://doi.org/10.17583/ijep.2020.4426

Al-Oweidi, A. (2019). The impact training of a program on improving the cognitive competencies of teachers in identifying gifted preschoolers. *Journal for the Education of Gifted Young Scientists*, *7*(2), 363-375. https://doi.org/10.17478/jegys.539724

Al-Oweidi, A., & Freihat, A. (2020). The role of school principals in caring for gifted students. *Journal for the education of gifted young scientists*, *8*(2), 919-934. https://doi.org/10.17478/jegys.716274

Amka, A. (2021). Identifikasi Anak Berbakat/Gifted di Sekolah Inklusi.

Asik, M., & Zelyurt, H. (2021). Investigation of Parents' Views Regarding the Recognition and Education of Specially Talented Individuals in Early Childhood Period. *Pegem Journal of Education and Instruction*, *11*(4), 44-52. https://doi.org/10.47750/pegegog.11.04.05

Reneng Ayomi, A. T., Widyorini, E., & Roswita, M. Y. Hubungan Inteligensi Dengan Fungsi Eksekutif Pada Anak Gifted. *Jurnal Ilmiah Psikologi Candrajiwa*.

Bahar, A., & Ozturk, M. A. (2018). An Exploratory Study on the Relationship between Creativity and Processing Speed for Gifted Children. *International Education Studies*, *11*(3), 77-91. https://doi.org/10.5539/ies.v11n3p77

Bildiren, A., Sağkal, A. S., Gür, G., & Özdemir, Y. (2020). The perceptions of the preschool teachers regarding identification and education of gifted children. *Ozel Egitim Dergisi*, *21*(2), 351-356. https://doi.org/10.21565/ozelegitimdergisi.572326

Brigandi, C. B., Weiner, J. M., Siegle, D., Gubbins, E. J., & Little, C. A. (2018). Environmental perceptions of gifted secondary school students engaged in an evidence-based enrichment practice. *Gifted Child Quarterly*, *62*(3), 289-305. https://doi.org/10.1177/0016986218758441

Coates, D., Shimmin, A., & Thompson, W. (2009). Identifying and supporting gifted children in a nursery school (kindergarten). *Gifted Education International*, *25*(1), 22-35. https://doi.org/10.1177/026142940902500105

Dağlıoğlu, H. E., Ömeroğlu, E., Turupcu Doğan, A., Sarıcı Bulut, S., Sabancı, O., Kukul, V., Kılıç Çakmak, E., & Karataş, S. (2019). The Reliability and Validity Study of Classroom Practices in Inclusive Preschool Education Environment with Talented and Gifted Children Scale. *Pegem Journal of Education & Instruction/Pegem Egitim ve Ögretim*, *9*(2). https://doi.org/10.14527/pegegog.2019.013

Ericsson, K. A., Nandagopal, K., & Roring, R. W. (2005). Giftedness viewed from the expert-performance perspective. *Journal for the Education of the Gifted*, *28*(3-4), 287-311. https://doi.org/10.4219/jeg-2005-335

Franklin, J., Yahnke, S., & Honeck, E. (2016). Teaching Gifted Children in Todays Preschool and Primary Classrooms.

Gierczyk, M., & Pfeiffer, S. I. (2021). The impact of school environment on talent development: A retrospective view of gifted British and Polish college students. *Journal of Advanced Academics*, *32*(4), 567-592. https://doi.org/10.1177/1932202X211034909

Guo, S., Guan, S., & Yan, X. (2021). Effects of early learning environment on early childhood development in rural areas in China. *Children and Youth Services Review*, *124*, 105978. https://doi.org/10.1016/j.childyouth.2021.105978

Harrison, C. (1999). *Giftedness in early childhood*. Gifted Education Research, Resource and Information Centre, University of New South Wales.

Jarvis, I., Sbihi, H., Davis, Z., Brauer, M., Czekajlo, A., Davies, H. W., Gergel, S. E., Guhn, M., Jerrett, M., Koehoorn, M., Nesbitt, L., Oberlander, T. F., & Su, J. (2022). *The influence of early-life residential exposure to different vegetation types and paved surfaces on early childhood development: A population-based birth cohort study*. Environment International, 163, 107196. https://doi.org/10.1016/j.envint.2022.107196

Jawabreh, R., Danju, İ., & Salha, S. (2022). Exploring the characteristics of gifted pre-school children: Teachers' perceptions. *Sustainability*, *14*(5), 2514. https://doi.org/10.3390/su14052514

Kahveci, G., & Güneyli, A. (2023). Examining Conjoint Behavioral Consultation to Support 2e-Autism Spectrum Disorder and Gifted Students in Preschool with Academic and Behavior Concerns. *Behavioral Sciences*, *13*(8), 674. https://doi.org/10.3390/bs13080674

Kettler, T., Oveross, M. E., & Salman, R. C. (2017). Preschool gifted education: Perceived challenges associated with program development. *Gifted Child Quarterly*, *61*(2), 117-132. https://doi.org/10.1177/0016986217690228

King, S. (2022). The education context for twice-exceptional students: An overview of issues in special and gifted education. *Neurobiology of learning and memory*, *193*, 107659. https://doi.org/10.1016/j.nlm.2022.107659

Loyola, C. C., Grimberg, C. A., & Colomer, Ú. B. (2020). Early childhood teachers making multiliterate learning environments: The emergence of a spatial design thinking process. *Thinking Skills and Creativity*, *36*, 100655. https://doi.org/10.1016/j.tsc.2020.100655

Machů, E. (2015). Analyzing differentiated instructions in inclusive education of gifted preschoolers. *Procedia-Social and Behavioral Sciences*, *171*, 1147-1155. https://doi.org/10.1016/j.sbspro.2015.01.224

Mammadov, S. (2015). Current policies and policy efforts for the education of gifted children in Turkey. *Roeper Review*, *37*(3), 139-149. https://doi.org/10.1080/02783193.2015.1047548

Van, J. M. (2016). Deteksi dan Penanganan Anak Cerdas Istimewa.

Miedijensky, S. (2018). Learning environment for the gifted—What do outstanding teachers of the gifted think?. *Gifted Education International*, *34*(3), 222-244. https://doi.org/10.1177/0261429417754204

Montag, J. L., Jones, M. N., & Smith, L. B. (2018). Quantity and diversity: Simulating early word learning environments. *Cognitive science*, *42*, 375-412. https://doi.org/10.1111/cogs.12592

Nagy, I., & Papp, I. (2013). Developing gifted children in Hungarian preschool education. *Gifted Education International*, *29*(2), 174-185. https://doi.org/10.1177/0261429412447714

Hamidah, N., Siwiyanti, L., & Ashshidiqi, A. (2020). Penerapan Metode Bermain Peran Dalam Pemahaman Bahasa Pada Anak Usia Dini. *Jurnal Jendela Bunda Program Studi PG-PAUD Universitas Muhammadiyah Cirebon*, *7*(2), 58-71.

Nordström, M. E. (2022). Swedish preschool teachers and principals' conceptions of giftedness and gifted education. *Journal for the Education of the Gifted*, *45*(3), 271-291. https://doi.org/10.1177/01623532221105602

Novak, A. M., Lewis, K. D., & Weber, C. L. (2020). Guiding principles in developing equity-driven professional learning for educators of gifted children. *Gifted Child Today*, *43*(3), 169-183. https://doi.org/10.1177/1076217520915743

Ngaisah, N. C., Suhasto, F. P., & Hayati, K. N. (2022). Preschool Curriculum System Innovation in the Philippines and Indonesia: Inovasi Sistem Kurikulum Prasekolah di Filipina dan Indonesia. *Edulab: Majalah Ilmiah Laboratorium Pendidikan*, *7*(2), 211-224. https://doi.org/10.14421/edulab.2022.72.06

Papadopoulos, D. (2021). Examining the relationships among cognitive ability, domain-specific self-concept, and behavioral self-esteem of gifted children aged 5–6 years: A cross-sectional Study. *Behavioral Sciences*, *11*(7), 93. https://doi.org/10.3390/bs11070093

Plucker, J. A., Beghetto, R. A., & Dow, G. T. (2004). Why isn't creativity more important to educational psychologists? Potentials, pitfalls, and future directions in creativity research. *Educational psychologist*, *39*(2), 83-96. https://doi.org/10.1207/s15326985ep3902_1

Plucker, J. A., & Barab, S. A. (2005). The importance of contexts in theories of giftedness. *Conceptions of giftedness*, *201*, 216. https://doi.org/10.1017/CBO9780511610455.013

Rohmadheny, P. S., & Saputra, W. N. E. (2015). Pentingnya Sinergi Antara Tenaga Konselor, Pendidik, dan Orangtua di Satuan Pendidikan Anak Usia Dini. *Jurnal CARE*, *3*(1).

Setiyatna, H., & Melati, P. (2021). Pola Asuh Anak Cerdas Istimewa dalam Islam. *JECED: Journal of Early Childhood Education and Development*, *3*(1), 41-46. https://doi.org/10.15642/jeced.v3i1.1140

Spiteri, J. (2022). Early childhood gifted education. In *Encyclopedia of Teacher Education* (pp. 545-550). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-16-8679-5_444

Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2011). Rethinking giftedness and gifted education: A proposed direction forward based on psychological science. *Psychological science in the public interest*, *12*(1), 3-54. https://doi.org/10.1177/1529100611418056

Syafril, S., Yaumas, N., Ishak, N., Yusof, R., Jaafar, A., Yunus, M., & Sugiharta, I. (2020). Characteristics and educational needs of gifted young scientists: a focus group study. *Journal for the Education of Gifted Young Scientists*, *8*(2), 947-954. https://doi.org/10.17478/jegys.691713

Thomas, M. S. (2018). A neurocomputational model of developmental trajectories of gifted children under a polygenic model: When are gifted children held back by poor environments?. *Intelligence*, *69*, 200-212. https://doi.org/10.1016/j.intell.2018.06.008

Triandini, E., Jayanatha, S., Indrawan, A., Putra, G. W., & Iswara, B. (2019). Metode systematic literature review untuk identifikasi platform dan metode pengembangan sistem informasi di Indonesia. *Indonesian Journal of Information Systems*, *1*(2), 63-77. https://doi.org/10.24002/ijis.v1i2.1916

Ujianti, P. R. (2021). The Implementation of Inclusive Education Program for Early Childhood. In *2nd International Conference on Technology and Educational Science (ICTES 2020)* (pp. 175-178). Atlantis Press. https://doi.org/10.2991/assehr.k.210407.233

Wellisch, M., & Brown, J. (2012). An integrated identification and intervention model for intellectually gifted children. *Journal of Advanced Academics*, *23*(2), 145-167. https://doi.org/10.1177/1932202X12438877

Wellisch, M. (2019). Ceilinged out: Gifted preschoolers in early childhood services. *Journal of Advanced Academics*, *30*(3), 326-354. https://doi.org/10.1177/1932202X19851276

Weyringer, S. (2013). Gifted education in Austria. *Journal for the Education of the Gifted*, *36*(3), 365-383. https://doi.org/10.1177/0162353213494502

Yunus, M. M., Sulaiman, N. A., & Embi, M. A. (2013). Malaysian Gifted Students' Use of English Language Learning Strategies. *English Language Teaching*, *6*(4), 97-109. https://doi.org/10.5539/elt.v6n4p97