

Children's Perspective and Aspirations on A Green Environment Through Environmental Education

Destria Angelina¹, Ali Formen², Yuli Kurniawati Sugiyo Pranoto³

¹ Universitas Negeri Semarang, Semarang, Indonesia; angelinadestria@students.unnes.ac.id

² Universitas Negeri Semarang, Semarang, Indonesia; ali.formen@mail.unnes.ac.id

³ Universitas Negeri Semarang, Semarang, Indonesia; yuli.kurniawati.sp@mail.unnes.ac.id

ARTICLE INFO

Keywords:

early childhood education;
environmental education;
children's perspectives;
sustainability education;
child agency

Article history:

Received 2025-10-29

Revised 2026-07-04

Accepted 2026-07-26

ABSTRACT

Environmental degradation and climate change have increased the need for effective environmental education (EE) from early childhood. Although EE is increasingly embedded in early childhood curricula, limited research has explored young children's own perspectives and aspirations regarding what constitutes a green and sustainable environment. This study aimed to explore how children conceptualize a green environment and the aspirations they express for environmental care. A qualitative participatory case study was conducted with 17 children aged 4–6 years from three early childhood education institutions in Semarang, Indonesia. Data were collected through participatory observations, draw-and-tell activities, semi-structured interviews, and document analysis. The data were analyzed using Braun and Clarke's six-phase reflexive thematic analysis and interpreted through the UNESCO–UNEP Environmental Education framework of learning about, in, and for the environment. Five interconnected themes emerged: (1) a clean environment free from waste and flooding; (2) a pollution-free environment that supports healthy living; (3) harmonious coexistence with plants and animals; (4) safe, enjoyable, and disaster-resilient spaces for play; and (5) sustainable everyday practices, including energy conservation and recycling. Children's narratives and drawings revealed that they viewed environmental sustainability through cognitive, emotional, and moral lenses, expressing empathy toward nature and a sense of personal responsibility for environmental stewardship. The findings demonstrate that young children are capable of articulating meaningful environmental perspectives and aspirations. Positioning children as active contributors to environmental education can strengthen participatory, child-centered approaches to Education for Sustainable Development and inform the design of developmentally appropriate environmental learning in early childhood settings.

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

Corresponding Author:

Destria Angelina

Universitas Negeri Semarang, Semarang, Indonesia; angelinadestria@students.unnes.ac.id

1. INTRODUCTION

Environmental challenges such as climate change, biodiversity loss, pollution, and unsustainable consumption have intensified global calls for early and meaningful environmental education. Within the framework of Education for Sustainable Development (ESD), early childhood is widely recognized

as a critical period for nurturing environmental awareness, pro-environmental values, and sustainable habits. Internationally, early childhood education–environmental education (ECE–EE) literature shows that young children are capable of developing care for nature, empathy toward living beings, and responsible environmental behaviors when supported through experiential and play-based approaches. Research also emphasizes children’s rights to participate in environmental matters affecting their lives, as articulated in the United Nations Convention on the Rights of the Child, which highlights respect for the natural environment as an educational aim.

In the Indonesian context, we know that children aged 4–6 in Indonesian early childhood settings conceptualize a “green environment” from their own perspectives. There is limited participatory evidence that centers children’s voices, meanings, emotions, and aspirations regarding environmental conditions around them at home, in school, and in public spaces. Much of the existing literature remains adult-centered, measuring children’s behavior or knowledge rather than exploring their lived experiences, imaginative constructions, and moral reasoning about the environment.

This gap matters for several reasons. First, curriculum design in early childhood education should be developmentally appropriate and grounded in children’s real understandings, not solely adult assumptions. Second, teacher practice can be strengthened when educators better understand how children interpret environmental messages and experiences. Third, achieving broader ESD goals requires recognizing young children as active agents capable of expressing environmental concerns, hopes, and ethical orientations. Without incorporating children’s conceptualizations and aspirations, environmental education risks becoming procedural (e.g., routine cleaning, recycling activities) rather than transformative and meaningful.

Therefore, this study addresses the following research questions “What perspective and aspirations do children express regarding the “green environment”?. This study offers participatory, child-centered evidence from early childhood education settings in Semarang, Indonesia. It combines children’s drawings, narrative explanations, and classroom observations to capture not only cognitive understandings but also moral and emotional dimensions of children’s environmental perspectives. By linking these dimensions to actual school practices, the study contributes practical insights for curriculum development and teacher practice in early childhood environmental education, while strengthening the role of children’s voices within ESD discourse

2. METHOD

This study employed a participatory qualitative case study design. The case study approach was selected because the research focused on exploring in depth children’s conceptualizations and aspirations regarding a “green environment” within specific early childhood education (ECE) settings in Semarang. The participatory orientation positioned children not merely as objects of assessment, but as active contributors whose drawings, narratives, and interactions were treated as meaningful data. This design aligns with child-centered research traditions in early childhood studies and environmental education, emphasizing children’s agency and voice.

The study was conducted in three early childhood education institutions in Semarang, Central Java, Indonesia:

1. Eduhouse Preschool (PKBM Eduhouse), a private early childhood center integrating environmental themes into daily routines.
2. TK Anggrek Bulan, a private kindergarten with structured environmental activities embedded in its curriculum.
3. TK Bina Bangsa School Semarang, a private kindergarten that incorporates environmental practices and school greening initiatives.

All three schools had integrated environmental education into their learning processes and school culture, making them suitable sites for examining how environmental education is enacted and how it shapes children’s expressions. The schools represent urban early childhood settings with diverse socioeconomic backgrounds, primarily serving middle-income families in Semarang. A total of 17

children aged 4–6 years who study in Kindergarten 2 level are participated in this study. Participants were selected using purposive sampling, with the intention of identifying children who were enrolled in schools that had implemented environmental education practices and who were able to meaningfully engage in drawing and conversational activities.

Children were included based on the following criteria:

- a. Aged between 4 and 6 years.
- b. Enrolled in the participating school for at least one semester (to ensure exposure to environmental education practices).
- c. Able to communicate verbally in Bahasa Indonesia and participate in simple conversational interviews.
- d. Willing to engage in drawing and storytelling activities.

In addition to child participants, school principals and classroom teachers were interviewed to provide contextual data regarding the implementation of environmental education. Data were collected through participant observation (passive participation) to document environmental education practices, teacher–child interactions, and environmental routines. Semi-structured interviews with principals and teachers to explore curriculum integration and school-level environmental policies. Child interviews using draw-and-tell techniques, where children were invited to draw a “green environment” and explain their drawings. Document analysis, including lesson plans and children’s artwork.

The draw-and-tell method enabled children to express ideas visually and verbally, reducing reliance on abstract verbal explanations alone (Duncan, 2013). Children were first invited to draw freely, followed by open-ended prompts such as: “Can you tell me about your drawing and why you drew it?” Clarifying prompts were used only when necessary, avoiding leading questions. Ethical clearance was secured through institutional approval procedures at the affiliated university and written institutional permission from each participating school was obtained prior to data collection. It is also completed by parental Consent which was obtained from parents or legal guardians and child assent which was obtained verbally in age-appropriate language before participation. Children were told that participation was voluntary and that they could stop at any time. Some safeguarding Procedures during the research are as follows:

- a. Pseudonyms were used for schools and participants in all transcripts and reports.
- b. Children were informed that there were no right or wrong answers.
- c. Participation occurred in familiar school environments to reduce anxiety.
- d. Children could withdraw at any time without consequence.
- e. Children’s drawings remained the intellectual property of the children and schools. Written parental permission was obtained for the use of anonymized images in academic publications to protect the privacy and confidentiality of the participants. No personal identifiers, such as the children’s names or other identifying information, are disclosed. Throughout the study, the researchers ensured that the collection, analysis, and publication of the children’s drawings respected the rights, dignity, and well-being of all participants.

Data were analyzed using Braun and Clarke’s reflexive thematic analysis approach (Braun & Clarke, 2006; 2019). This method was chosen because it allows for systematic identification of patterns while maintaining sensitivity to children’s meaning-making processes.

The analysis followed six phases:

1. Familiarization

The researcher repeatedly read interview transcripts, observation notes, and examined drawings while listening to audio recordings to immerse in the data.

2. **Initial Coding**
Data were coded inductively using semantic and in vivo codes to preserve children's original expressions. Codes were generated across interviews, observations, and visual data.
3. **Theme Development**
Codes were grouped into potential themes reflecting patterns related to children's conceptualizations, aspirations, and moral/emotional dimensions.
4. **Reviewing and Refining Themes**
Candidate themes were reviewed against the full dataset to ensure coherence within themes and distinction between themes. Some themes were merged, refined, or discarded.
5. **Defining and Naming Themes**
The essence of each theme was clearly defined, specifying how it addressed the research questions.
6. **Reporting**
Themes were presented with illustrative excerpts from interviews and descriptions of drawings to provide a coherent analytic narrative.

Data triangulation was achieved through combining the child's drawings, interviews, classroom observations. A systematic record of coding decisions, theme development, analytic memos, and reflective notes was maintained to ensure transparency. The researcher maintained reflexive notes throughout the study to examine how personal background, professional experience in early childhood education, and environmental commitments might influence interpretation. Recognizing the adult-child power dynamic, the researcher consciously minimized directive questioning and prioritized children's spontaneous expressions. This methodological approach ensured alignment with the participatory child-centered aims of the study, while maintaining ethical integrity and analytic rigor in examining young children's conceptualizations and aspirations regarding a green environment in Semarang.

3. FINDINGS AND DISCUSSION

Thematic analysis identified five interrelated themes representing young children's perspectives and aspirations toward a green environment. These themes were interpreted through the UNESCO-UNEP Environmental Education (EE) framework, which conceptualizes environmental learning as learning about, in, and for the environment (UNESCO-UNEP, 1990; Supadmini et al., 2020). Within the dimension of learning about the environment, children emphasized the importance of a clean environment free from waste and flooding, a pollution-free environment that supports healthy living, and a natural environment where plants and animals can thrive. Learning in the environment was reflected in children's aspirations for safe, enjoyable, and disaster-resilient spaces that enable outdoor play and exploration. Meanwhile, learning for the environment was evident in children's awareness of sustainable practices, including conserving energy, recycling waste, and adopting environmentally responsible daily behaviors.

Collectively, these themes demonstrate that children's understanding of a green environment extends beyond its physical appearance. Their perspectives integrate cognitive, emotional, moral, and behavioral dimensions, revealing empathy toward nature, concern for the well-being of living things, and an emerging sense of personal responsibility for environmental stewardship. These findings suggest that young children are capable of constructing holistic and meaningful understandings of environmental sustainability, reinforcing their role as active participants in environmental education rather than passive recipients of environmental knowledge.

3.1. *Clean Environment Free from Waste and Flooding*

Children consistently associated a green environment with cleanliness. They expressed the belief that littering causes environmental problems such as flooding and harm to sea animals. Through their

drawings and narratives, they depicted sadness when seeing polluted oceans or garbage-strewn streets. This can be seen from one of the interview with TA and MA who interpret their drawing.



Figure 1. Drawing of TA (5-year-old girl)

I: "Oh, why does the sun look so sad?" (*"Oh, lha kenapa ini mataharinya kok sedih?"*)

C: "The sun looks sad because this child threw the rubbish carelessly." (*"Mataharinya sedih soalnya anaknya ini buang sampah sembarangan."*)



Figure 2. Drawing of MA (5-year-old girl)

I: "What about this, Marveline? I see a lot of people. What are they doing?" (*"Kalau yang ini bagaimana, Marveline? Ibu lihat banyak orang. Mereka sedang apa?"*)

C: "They want to check the Earth because it needs to get rid of all the trash. So, they're going to check the whole Earth for rubbish. There is also old Coca-Cola because people drink a lot of Coca-Cola." (*"Mereka mau mengecek kalau bumi itu perlu dibersihkan dari semua sampah, jadi mereka akan mengecek seluruh bumi untuk mencari sampah. Ada juga Coca-Cola yang sudah lama karena orang-orang minum banyak Coca-Cola."*)

Children also articulated practical actions, such as sorting and properly disposing of waste, showing an emerging sense of agency in environmental care. This aligns with Nugroho's (2022) findings that environmental learning fosters responsibility and daily habits of cleanliness. Their

understanding demonstrates that even at an early age, children recognize cause-and-effect relationships between human behaviour and environmental consequences.

3.2. Pollution-Free Environment for Healthy Living

Another dominant theme was children's awareness of air pollution and its effects on health. From the interview with JE and AI, they identified smoke from vehicles as a cause of coughing, difficulty breathing, and discomfort. They suggested solutions such as wearing masks, planting trees, or using bicycles and electric vehicles to reduce emissions.

I: "If Mom and Dad invited you to go for a walk or ride a bicycle together on a Sunday morning, would you like that?" (*"Kalau minggu pagi diajak jalan-jalan atau naik muter-muter naik sepeda sama Ayah sama Mama gitu, mau gak?"*)

C: "I'd like to go for a walk, but I don't want to go on a main road like this because I've been in traffic jams before, and there's a lot of smoke when the vehicles stop." (*"Mau jalan-jalan tapi ngga mau sampe di jalan raya kaya gini soalnya pernah macet dan asepnnya banyak kalo berhenti."*)

C: "Then the people behind the vehicles get the smoke, and it makes it hard for them to breathe." (*"Nanti orangnya yang kena asap yang dibelakangnya nanti sesak nafas."*)

This awareness indicates early critical thinking about sustainable transportation and health, echoing Supadmini et al. (2020), who emphasized the role of EE in developing cognitive and moral understanding of environmental issues. Children's responses reveal an intuitive grasp of how lifestyle choices impact the broader ecosystem.

3.3. Environment Where Plants and Animals Can Live Happily

Children frequently connected a green environment with the well-being of living things. Their drawings portrayed happy plants, blooming flowers, and free-moving animals.



Figure 3. Drawing of VA (5 year old girl)

I: "What is this picture, Va?" (*"Ini gambar apa, Va?"*)

C: "These flowers are happy because they can get sunshine and they can drink water." (*"Ini bunganya happy, ehm karena bisa apa itu? bisa kena matahari sama bisa minum."*)

They expressed concern when animals were trapped in plastic waste or when trees were cut down. Such expressions reflect empathy as an essential foundation for pro-environmental behavior. Children viewed environmental protection not merely as a duty but as an act of kindness toward other living

beings. This emotional engagement is consistent with Bronfenbrenner's ecological theory, where early experiences in the natural environment shape social and moral development.

3.4. *Safe and Enjoyable Environment for Play*

Children also described a green environment as a place where they could play safely with friends. They associated safety with the absence of flooding, storms, or other hazards. Flooding was viewed as frightening because it limited outdoor play and caused damage to homes and nature. This can be seen from the interview with AY.

I: "Do you think it's dangerous to swim in floodwater?" (*"Kira-kira kalau berenang di tempat banjir itu bahaya nggak ya?"*)

C: "Yes, it's dangerous." (*"Bahaya."*)

I: "Why is it dangerous?" (*"Kenapa bahaya?"*)

C: "Of course it's dangerous. What if there's thunder? Then the water might suddenly get very high. People can't hold their breath, they can't swim, and they could fall into the water." (*"Bahaya dong nanti kalau ada gluduk. Nanti kan airnya tau tau tinggi, orangnya nggak bisa tahan nafas, nggak bisa berenang orangnya jatuh nanti."*)

Interestingly, some children demonstrated adaptive reasoning—suggesting practical safety measures such as moving to higher ground or staying indoors. This shows that environmental learning in early childhood helps children develop resilience and problem-solving abilities, supporting the principle of resilience building as part of sustainability education.

3.5. *Sustainable Environment Through Energy Saving and Recycling*

The final theme emphasized sustainability through simple daily practices. Children described turning off lights, opening windows to use natural light, and reminding family members to conserve electricity. Some mentioned composting leftover food or leaves to create fertilizer and suggested using water refill stations instead of disposable bottles.

I: "What if your friends don't finish their food? What should they do?" (*"Kalau teman-teman makannya nggak habis terus gimana?"*)

C: "If they don't finish it, they can put the leftovers into the compost or into the compost hole in the garden." (*"Kalau nggak habis kan bisa dimasukin ke kompos apa ke lubang yang ada di taman."*)

These behaviors demonstrate that sustainability concepts can be internalized from an early age when taught through experience and modeling. Consistent with the *Theory of Planned Behavior* (Ajzen, 1991), children's actions reflected the formation of attitudes, perceived behavioral control, and environmental norms—key predictors of future pro-environmental behavior.

Discussion

The findings demonstrate that young children conceptualize a green environment as a multidimensional construct encompassing environmental quality, personal well-being, empathy toward living organisms, safe spaces for play, and sustainable daily practices. Interpreted through the UNESCO–UNEP Environmental Education (EE) framework, these perspectives reflect children's learning *about*, *in*, and *for* the environment, suggesting that environmental understanding in early childhood extends beyond factual knowledge to include emotional engagement and moral responsibility (UNESCO–UNEP, 1990; Supadmini et al., 2020). Rather than perceiving the environment merely as a physical setting, the participating children described reciprocal relationships between

humans and nature, indicating that environmental awareness is already emerging during the preschool years.

The first theme, a clean environment free from waste and flooding, illustrates children's ability to connect everyday behaviors with broader environmental consequences. Their narratives showed an understanding that littering contributes to flooding and harms ecosystems, while several children attributed emotions to natural elements, such as describing the sun as "sad" when people throw rubbish carelessly. Such expressions suggest that children construct environmental meanings through both cognitive reasoning and emotional interpretation. These findings align with research demonstrating that environmental education in early childhood promotes ecological awareness by connecting daily experiences with environmental responsibility (Davis & Elliott, 2014; UNESCO, 2024). From a sociocultural perspective, children's understanding is likely shaped through interactions with teachers, parents, and peers who model environmentally responsible behaviors, consistent with Vygotsky's theory that knowledge is socially constructed through guided participation (Vygotsky, 1978). The findings also support Bandura's (1986) Social Cognitive Theory, which emphasizes observational learning as a mechanism through which children acquire pro-environmental behaviors.

The second theme, a pollution-free environment for healthy living, demonstrates that children are capable of relating environmental quality to human health. Their discussions of vehicle emissions, respiratory discomfort, and environmentally friendly transportation indicate an emerging understanding of the interconnectedness of environmental and personal well-being. Rather than merely repeating classroom messages, many children referred to their own experiences of traffic congestion and polluted air, suggesting that environmental concepts are grounded in lived experiences. This finding supports experiential learning theory, which argues that meaningful learning develops through direct interaction with real-life situations (Kolb, 1984). It also reinforces previous studies showing that environmental education becomes more meaningful when children connect abstract environmental concepts with their everyday experiences (Elliott & Davis, 2018). Although the present study cannot establish causal relationships, it suggests that children's environmental perceptions are shaped by the urban contexts in which they live and learn.

The third theme, an environment where plants and animals can live happily, highlights the affective dimension of children's environmental understanding. Participants consistently expressed empathy toward plants and animals, often describing them as living beings with emotions and needs. Such findings indicate that children do not simply recognize biodiversity but also develop moral concern for the well-being of other living organisms. This emotional connection has been identified as a critical foundation for environmental stewardship because empathy toward nature often precedes environmentally responsible behavior (UNESCO, 2021). The findings are consistent with Kellert's (2002) proposition that early positive experiences with nature foster emotional attachment, which subsequently influences environmental attitudes throughout life. Likewise, Chawla (2020) argues that opportunities to engage directly with natural environments during childhood contribute to the development of lasting environmental concern and action. The children's drawings and narratives therefore demonstrate that environmental education can cultivate not only ecological knowledge but also emotional relationships that motivate future sustainable behavior.

The fourth theme, safe and enjoyable environments for play, underscores children's recognition that environmental quality directly affects their opportunities for exploration, recreation, and well-being. Children associated green environments with places free from flooding and other hazards where they could safely interact with friends and nature. These findings reinforce Bronfenbrenner's ecological systems theory, which conceptualizes children's development as occurring through reciprocal interactions with their immediate physical and social environments (Bronfenbrenner, 1994). The emphasis on safe play spaces also reflects the principles of children's rights, particularly Article 31 of the United Nations Convention on the Rights of the Child, which recognizes children's right to play within environments that support their health and development (United Nations, 1989). Importantly, the findings demonstrate children's agency in evaluating environmental quality and articulating their preferences for environments that promote both safety and enjoyment. This supports the growing

literature on children's participation, which argues that young children are capable of contributing meaningful perspectives to discussions concerning sustainability and environmental planning (Clark, 2017; Davis, 2015).

The final theme, a sustainable environment through energy conservation and recycling, indicates that children are already developing an understanding of environmental responsibility through everyday actions. Practices such as switching off lights, composting food waste, recycling, and conserving natural resources illustrate that children perceive themselves as active participants in environmental protection rather than passive recipients of environmental messages. These findings are consistent with the Theory of Planned Behavior, which proposes that pro-environmental actions are influenced by attitudes, perceived behavioral control, and social norms (Ajzen, 1991). Moreover, children's willingness to remind family members and peers about environmentally responsible behaviors suggests the development of environmental agency, defined as individuals' belief in their capacity to contribute to environmental change (Bandura, 2001). Rather than viewing sustainability as an abstract concept, children interpreted it as a series of achievable daily practices embedded within their family and school routines.

Overall, this study extends previous research in early childhood environmental education by demonstrating that children's understanding of a green environment integrates cognitive knowledge, emotional attachment, ethical reasoning, and behavioral intentions into a coherent environmental worldview. While previous studies have frequently emphasized children's environmental knowledge or observable behaviors, the present findings reveal that children simultaneously construct environmental meanings through empathy, responsibility, and personal agency. This integrated perspective contributes to Education for Sustainable Development by reinforcing the importance of recognizing young children as active contributors whose voices can inform curriculum development and pedagogical practice. Positioning children as partners in environmental learning, rather than merely recipients of adult instruction, may strengthen the transformative potential of environmental education in fostering lifelong sustainability values and behaviors (Davis & Elliott, 2014; UNESCO, 2024).

4. CONCLUSION

This study explored young children's aspirations and perspectives toward a green environment in early childhood institutions in Semarang, Indonesia. The findings demonstrate that young children are not merely passive recipients of environmental education but capable meaning-makers who express thoughtful ideas, moral responsibility, empathy, and a sense of agency regarding environmental sustainability. Their voices revealed five interconnected priorities: cleanliness and waste management, pollution reduction, care for plants and animals, safe play environments, and sustainable everyday practices. These findings highlight the value of recognizing children as active contributors whose perspectives can meaningfully inform the design and implementation of environmental education.

The study underscores the importance of positioning children's voices at the center of early childhood education. Listening to children's experiences, ideas, and aspirations enables educators to develop environmental learning that is participatory, play-based, and responsive to children's lived realities. Such an approach not only strengthens environmental knowledge but also nurtures emotional connections with nature, ethical responsibility, and the confidence to act as agents of change. Building strong partnerships between schools, families, and communities can further reinforce children's everyday experiences of sustainability and create coherent learning environments that support pro-environmental values and behaviors.

This study has several limitations. The findings are based on a relatively small sample drawn from selected preschools in Semarang and are therefore not intended to be generalized to all early childhood settings. In addition, children's responses may have been influenced by the interview context, the researcher's presence, and the translation of interview data from Indonesian into English.

Future research should involve larger and more diverse samples, longitudinal approaches, and cross-cultural or cross-regional comparisons to deepen understanding of how children's environmental perspectives evolve over time. Further studies should also explore how children's voices can be systematically integrated into curriculum design, environmental decision-making, and policy development, ensuring that young children are recognized not only as learners about sustainability but also as important stakeholders in creating more sustainable early childhood education environments.

Acknowledgments: The author would like to express sincere appreciation to the principals, teachers, and children from Eduhouse Preschool, TK Anggrek Bulan, and TK Bina Bangsa School in Semarang for their cooperation and participation in this study. Special thanks are extended to the academic supervisors and peers who provided valuable insights during data analysis and manuscript preparation.

Conflicts of Interest: The author declares no conflict of interest. All procedures and interpretations were conducted objectively and ethically, with no external influence affecting the representation of the research findings.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Bandura, A. (1977). *Social learning theory*. Prentice Hall.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1–26. <https://doi.org/10.1146/annurev.psych.52.1.1>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Bronfenbrenner, U. (1994). Ecological models of human development. In T. Husén & T. N. Postlethwaite (Eds.), *International encyclopedia of education* (2nd ed., Vol. 3, pp. 1643–1647). Elsevier.
- Davis, J., & Elliott, S. (2014). *Research in early childhood education for sustainability: International perspectives and provocations*. Routledge.
- Duncan, P. A. (2013). *Drawing as a method for accessing young children's perspectives in research* (Doctoral dissertation, University of Stirling).
- Elliott, S., & Davis, J. (2018). Exploring the resistance: An Australian perspective on educating for sustainability in early childhood. *International Journal of Early Childhood*, 50(3), 313–328. <https://doi.org/10.1007/s13158-018-0224-5>
- Irshad, S., Maan, M. F., Batool, H., & Hanif, A. (2021). Vygotsky's Zone of Proximal Development (ZPD): An evaluative tool for language learning and social development in early childhood education. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 18(7), 234–242. (Verifikasi kembali nama jurnal karena tidak tercantum secara lengkap pada naskah.)
- Nugroho, M. A. (2022). Konsep pendidikan lingkungan hidup sebagai upaya penanaman kesadaran lingkungan pada kelas IV MIN 1 Jombang. *Ibtidaiyyah: Jurnal Pendidikan Guru Madrasah Ibtidaiyyah*, 1(2), 16–31. <https://doi.org/10.18860/ijpgmi.v1i2.1691>
- Rudduck, J., & Fielding, M. (2006). Student voice and the perils of popularity. *Educational Review*, 58(2), 219–231. <https://doi.org/10.1080/00131910600584207>
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Press.
- Sugiyono. (2021). *Metode penelitian kualitatif* (Cetakan ke-4). Alfabeta.
- Supadmini, N. K., Wijaya, I. K. W. B., & Larashanti, I. A. D. (2020). Implementasi model pendidikan lingkungan UNESCO di sekolah dasar. *Cetta: Jurnal Ilmu Pendidikan*, 3(1), 77–83. <https://doi.org/10.37329/cetta.v3i1.416>

- Tocci, C. M. (2009). John Dewey and experiential learning: Developing the theory for classroom practice. *Education and Culture*, 25(2), 3–14.
- UNESCO. (2021). *Learn for our planet: A global review of how environmental issues are integrated in education*. UNESCO.
- UNESCO. (2024). *Education for sustainable development: Progress and implementation reports*. UNESCO. (Sesuaikan dengan dokumen UNESCO 2024 yang benar-benar Anda sitasi dalam naskah.)
- UNESCO–UNEP. (1990). *International environmental education programme*. UNESCO.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.