



ECOLITERATION ABILITY OF STUDENS IN ELEMENTARY SCHOOLS: SYSTEMATIC LITERATURE REVIEW

Irma Yulianti Budi Safitri¹, Muhammad Asip², Yeni Rakhmawati³ dan Handara Tri Elitasari⁴

¹Primary Education, Yogyakarta State University, Indonesia

²Primary Education, Yogyakarta State University, Indonesia

³Primary Education, Yogyakarta State University, Indonesia

⁴Islamic Primary Education, STAINU Purworejo, Indonesia

irmayulianti2021@student.uny.ac.id

Received: 31 January, 2023, Revised: 08 March, 2023, Published: 31 March, 2023

ABSTRACT

Ecoliteracy lessons have been given to students, but in reality there has been no improvement in awareness of the environment. For example, students still throw garbage carelessly. Ecoliteracy is a means of making students aware of the importance of maintaining environmental balance. The research aims to find the right method or model in teaching ecoliteracy skills in elementary schools (SD). This type of research is literature study. The research subject is a form of elementary school students' awareness of the importance of protecting the environment. While the research data collection method uses the PRISMA method. Meanwhile, the research data collection instrument used a systematic literature review (SLR) which consisted of identifying, evaluating and interpreting the results of previous studies. Sources of research data from Scopus and Eric articles. The data were analyzed using the quality assessment method, namely analyzing article data that is in accordance with ecoliteracy learning in elementary schools. The results of the study found that there were 8 articles, namely: 1) one article problem solving model, 2) two article teaching materials, 3) two article contextual learning, 4) one project-based model, 5) one article adiwiyata school, 6) one article technology. Based on the research findings, it can be concluded that ecoliteracy research specifically discusses ecoliterate learning models in elementary schools, only three articles. In the process of learning ecoliteracy in elementary school, it is necessary to develop a special model for learning ecoliteracy in elementary school.

Keywords: *Ecoliteration, Elementary Schools*

ABSTRAK

Pembelajaran ekoliterasi sudah diberikan pada siswa, namun pada kenyataannya kesadaran akan lingkungan belum ada perbaikan. Contohnya siswa masih membuang sampah sembarangan. Ekoliterasi merupakan sarana menyadarkan siswa akan pentingnya menjaga keseimbangan lingkungan. Penelitian bertujuan untuk menemukan metode atau model yang tepat dalam mengajarkan keterampilan ekoliterasi di sekolah dasar (SD). Jenis penelitian yaitu studi pustaka. Subjek penelitian adalah bentuk kesadaran siswa SD akan pentingnya menjaga lingkungan. Sedangkan metode pengumpulan data penelitian dengan menggunakan metode PRISMA. Sementara untuk instrumen pengumpulan data penelitian menggunakan *systematic literature review* (SLR) yang terdiri dari mengidentifikasi, mengevaluasi dan menginterpretasikan hasil penelitian terdahulu. Sumber data penelitian dari artikel scopus dan eric. Data dianalisis dengan menggunakan metode *quality assessment* yaitu menganalisis data-data artikel yang sesuai dengan pembelajaran ekoliterasi di SD. Hasil penelitian menemukan bahwa terdapat 8 artikel yaitu: 1) model pemecahan masalah satu

artikel, 2) bahan ajar dua artikel, 3) pembelajaran kontekstual dua artikel, 4) model berbasis proyek satu, 5) sekolah adiwiyata satu artikel, 6) teknologi satu artikel. Berdasarkan hasil temuan penelitian maka dapat disimpulkan bahwa penelitian ekoliterasi yang khusus membahas model pembelajaran ekoliterasi di SD hanya tiga artikel. Pada proses pembelajaran ekoliterasi di SD perlu dilakukan pengembangan model khusus pembelajaran ekoliterasi SD.

Kata Kunci: Ekoliterasi, Sekolah Dasar

1. Introduction

Ecoliteracy as a step to made the world community aware of the importance of paying attention to the environment. Ecoliteracy was a paradigm that proclaims an environmental awareness movement that aims to increase people's ecological awareness (Palmer 2002). People were expected to be aware of the environment and not disturb the balance of nature. Community life in harmony with the environment as an effort to preserve the network of life. The effort was made to understand the principles of ecosystem organisation as a web of life (Rosyid, Budi Aman, and Hasanah 2019). This understanding was called ecoliteracy. Ecoliteracy was interpreted as a form of awareness to care for the environment, awareness to calm the surrounding environment (Rachmawati and Minsih 2021). This awareness can be taught from an early age to develop an attitude of love for the environment.

Environmental problems were important to solve because they would threaten present and future life. Concern for environmental sustainability can be formed through the implementation of sustainable education. The role of education was very important in shaping a caring attitude towards the environment because the components in the environment affect each other. Education had not integrated the importance of environmental education. Environment-based education was very important to foster children's concern for the environment.

Current learning still emphasises cognitive achievement and the first priority compared to instilling a caring attitude towards the environment. One of the efforts to instil learners' attitudes and behaviour, increase knowledge, skills and awareness of environmental issues was to emphasise environmental education. Learners were stimulated to be able to provide attitudes related to environmental issues that exist around them. Through environmental education, learners were expected to be able to move themselves to have ecological awareness or what was called ecoliteracy.

The application of sustainable education as a humanisation process that produces changes in the understanding of knowledge, awareness and sustainable practices needs to be carried out in primary schools. Learners who had received education about the environment and sustainability were expected to have ecological literacy. Learners who had ecological literacy skills would ask, "What next?". The concept of thinking and reflecting on actions will have a great impact on society. Ecological literacy implied understanding how people relate to each other and to nature and how they do so sustainably. Ecological literacy was often known as ecoliteracy which was a way that aims to realise the process of sustainable environmental management (Oktarina, Wardhani, and Marwanti 2020). Learners need an understanding of ecology and sustainability as a basis for solving environmental problems.

Learners who had ecoliteracy skills will be able to understand how negative human behaviour impacts the environment. The goal of ecoliteracy was to harmonise human life with nature and run in balance. Ecoliteracy was needed to produce citizens who have knowledge about environmental biophysics and related issues, build awareness and participation in overcoming environmental problems (Rosyid et al. 2019). Ecoliteration aims so that the life of every human being can be in balance with nature without destroying the

natural structure (Maulana, Kanzannudin, and Masfuah 2021). Therefore, ecoliteracy-based learning was needed to instil a sense of care and responsibility in students so that they could solve problems related to the sustainability of the school environment. Ecoliteracy can be implemented in elementary school students because at this age it was easier for students to be taught a sensitive attitude to their surroundings (Setyaningrum and Gunansyah 2020).

Ecoliteration can equip students to become ecologically literate individuals as an effort to reduce environmental problems. The knowledge gained can encourage students to be environmentally friendly, so they can be found solutions to the problems they face (Prastiwi, Sigit, and Ristanto 2019). Ecoliteracy acts as an agent in developing sustainable insights, knowledge and attitudes in society. The knowledge possessed was not only stored, but also implemented through concrete actions. Mainly related to the environment around the student's residence. Without application, environmental knowledge will become knowledge that has no continuity (Sitorus and Lasso 2021).

Ecoliteracy had been studied by researchers, especially discussing the methods or models used to improve ecoliteracy skills and their impact on knowledge, attitudes, behaviour through adiwiyata environmental education for students (Gunansyah et al. 2021; S. Clark, J. Bruce 2006). Ecoliteracy as sustainable education and the integration of ecoliteracy into schools (Ramadhan and Hartono 2021). Teachers can be taught and foster an understanding of the environment through learning activities (Karlina et al. 2017).

There had not been many reviews on how to improved the ecoliteracy skills of students in primary schools. Therefore, the focus of the literature review in this study was to review the methods used to improve ecoliteracy skills in primary schools. The purpose of this research was to review literature studies on methods or models that can be used to improve ecoliteracy skills in elementary schools using the PRISMA method through the Scopus and Eric sites as a medium for collecting data and information relevant to the writing of this article. By doing this systematic literature review, the results of the analysis will be obtained in the form of methods or models that are often used to improve ecoliteracy skills.

Theoretical Review

Ecoliteracy stands for ecological literacy, also known as ecological literacy and environmental literacy. In simple terms, ecoliteracy can be interpreted as understanding, understanding and practicing ecological values that are useful in overcoming environmental problems (Desfandi, Maryani, and Disman 2017). Ecoliteracy was a process of increasing understanding, knowledge, attitudes and behavior based on ecology. Ecoliteracy as a component that plays an important role in developing a caring attitude towards the environment in students (Ramadhan and Surjanti 2022). Students who have high ecoliteracy abilities will try to manage their environment well so that the environment can be maintained and not damaged. People who have this literacy will realize that it is important to protect the environment because it was a source of food, a place to live and the development of a life. This literacy must be owned by all individuals to be able to preserve the environment (Wijaya, Prathiwi, and Muliani 2021).

Ecoliteracy seeks to introduce and renew one's understanding of the importance of global ecological awareness, to create a balance between the needs of society and the ability of the earth to maintain it. Ecoliteracy learning was a learning to introduce students to the environment directly and there is a continuation (Benavot 2014). Attention to environmental damage generates thoughts about implementing sustainable development in the 21st century through the delivery of education that was integrated with environmental issues or is called environment-based education.

The implementation of environment-based education can be integrated one of them through science and SBdP learning content because it becomes one of the vehicles for developing moral, character, and creativity education as well as carrying out missions, values and attitudes in three domains, namely the cognitive domain, affective domain, and psychomotor domain to achieve instructional goals and accompaniment goals at the same time, with the hope of forming awareness to protect and preserve the environment. Ecoliterate learning in education for sustainable development includes 3 variables, namely first, learning conditions related to learning objectives, barriers and student characteristics (Setyaningrum and Gunansyah 2020). The two learning methods were strategies for organizing, delivering and managing learning. Third, learning outcomes namely the effectiveness, efficiency and attractiveness of learning.

2. Method

The object of this research was ecoliteracy. The reason for taking ecoliteracy as the object of research because there was an increase in the ecoliteracy ability of elementary school students and was caused by various factors.

The inclusion and exclusion criteria for the ecoliteracy articles searched can be seen in the following table:

Table 1. Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Document Type	Article	Blog, e-book, paper
Timeline	2012-2022	Before 2012
Language	English	Non English
Source Type	Journal	Proceedings, book series

The method used in this study was Systematic Literature Review using systematic review and meta-analytic (PRISMA). The literature search was limited to articles published in 2012 - 2022. The article search was conducted online using the search keyword "ecoliteracy" in the title and the keyword "elementary school" in the research database in Scopus and Eric.

Research questions were created based on the chosen topic, namely RQ1. What was the information obtained about the ecoliteracy skills of elementary school students? RQ2. What factors cause learners' ecoliteracy skills to improve? RQ3. Why was this method widely used in ecoliteracy research?

Systematic Literature Review research using PRISMA consists of four stages, namely identification, screening, eligibility, and inclusion.

a. Identification stage

This stage consists of 2 steps, namely first, literature searches are carried out on online databases that had large repositories for academic studies, namely Scopus and Eric. Second, search for supporting data from the literature searched.

b. Screening stage

This stage consists of 3 steps, namely first, determining the keywords to be used in the search, namely "ecoliteracy" and "elementary school". Second, filtering the same data (duplicates) by exploring and selecting titles, abstracts, and keywords in the articles obtained from the search results based on the previously defined eligibility criteria. Third, the amount of data used and not used for further review was obtained.

c. Eligibility stage

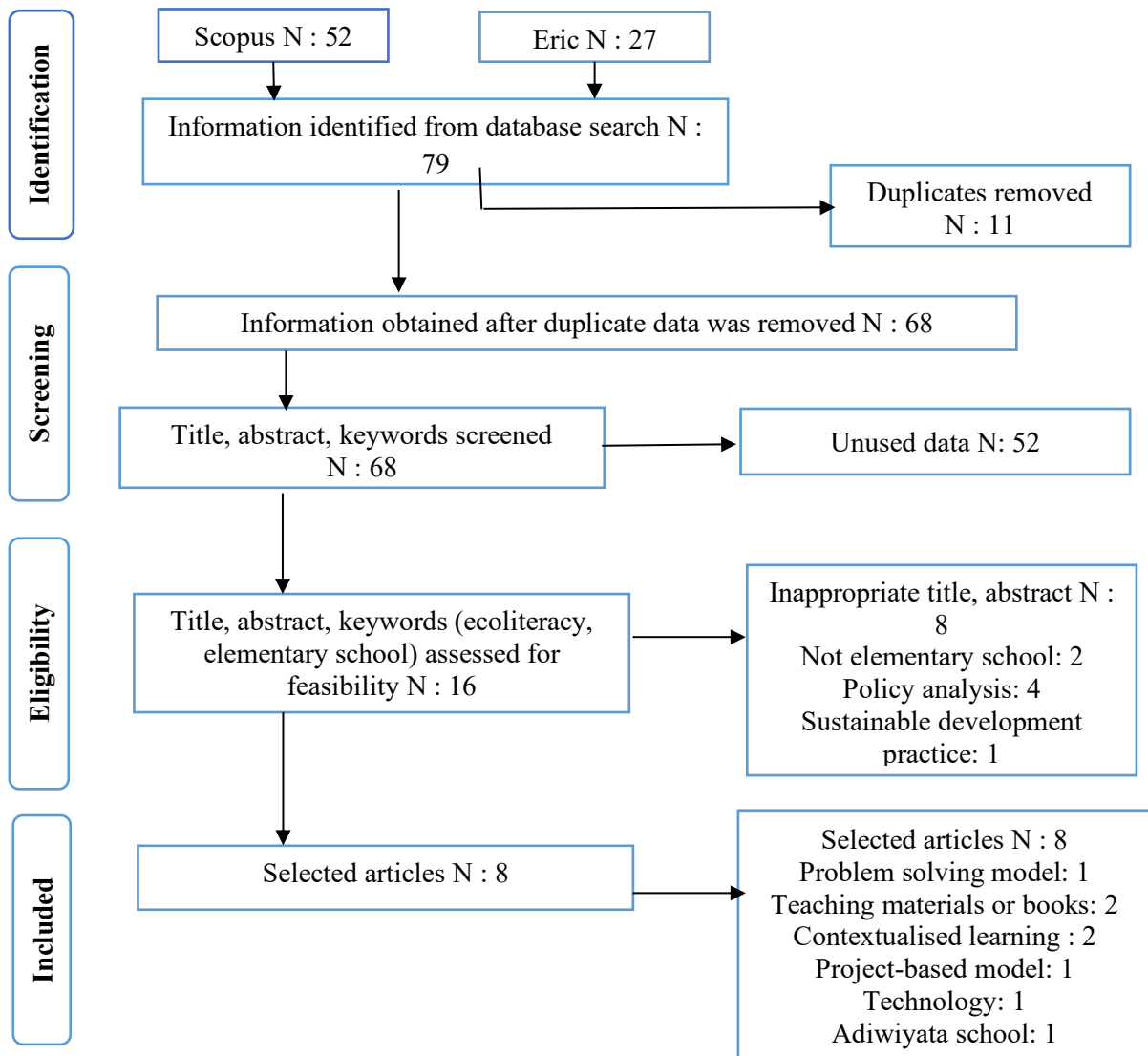
Firstly, a full or partial reading of the articles that had not been eliminated in the previous stage was conducted to determine whether they should be included in the subsequent review according to the eligibility criteria. Second, the reference lists of the selected articles were reviewed to find other related studies. Articles contained in the reference list that relate to ecoliteracy in primary schools will be reviewed again, so 2 data are obtained, namely eligible data and ineligible data.

d. Included stage

At this stage the data is grouped in the form of a table. The table contains the name of the researcher, year of publication, journal, and the results of the study. The discussion of several articles related to the topic was reviewed and compared then conclusions are drawn.

3. Results and Discussions

The research database search resulted in all the ecoliteracy keyword search results obtained as many as 79 research articles. Scopus as many as 52 articles and Eric as many as 27 articles. The time span of the reviewed articles on ecoliteracy were 2012 to 2022. Then the articles were filtered and the topic to be studied was ecoliteracy learning in elementary schools. After filtering, 2 research articles from Scopus were found while 7 research articles from Eric. The following picture can be explained in all stages using the PRISMA diagram.



RQ1. How was information obtained about the ecoliteracy skills of primary school students?

Based on the research results using the PRISMA method, 9 articles on ecoliteracy in primary schools were selected. The information obtained about the ecoliteracy skills of primary school students can be seen in the following table.

Table 2. Main Characteristics of Included Data

Journal	Author and Year of Publication	Research Results
<i>International Journal of Scientific & Technology Research</i> . Vol.8. Issue 9	Syofyan, H., Rachmadtullah, R. (2019)	The usage of the problem solving model produced positive results on students' learning activities regarding the importance of ecoliteracy. Based on the research findings from the data obtained, it shows that students' ecoliteracy increased from cycle I to cycle II. The increase in ecoliteracy can be seen from the increase in the percentage level of achievement from various aspects, namely the knowledge aspect, the conscience aspect and the application or action aspect. (Susanto, Syofyan, and Rachmadtullah 2020)
<i>Journal of Physics: Conference Series</i>	Noviana, e., Kurniaman, O., Salwa, N., Hermita, N., Afendi, N., Zufriady, Z., Munjiatun, Misliati, M. (2019)	This study provides an overview of the differences in students' knowledge of ecology in elementary schools using the 2013 curriculum developed by eco-literacy teaching materials. The results prove that the use of eco-literacy teaching materials was more effective in increasing students' ecological knowledge.
<i>International Journal of Early Childhood Environmental Education</i> v6 n2 p19-41	Muthukrishnan, R. (2019)	Picture books had the potential to engage students in multimodal ways of learning in early education settings. This pilot study aimed to investigate the effectiveness of using specially written picture books to convey the increasingly complex concept of ecosystems and their effect on introducing ecoliteracy to grade one students. Under the central theme of "ecoliteracy" books introducing four sub-themes (nature, cycles in nature, biodiversity in the rainforest, introducing the phenomenon of bioluminescence) were implemented at two-week intervals. The questions investigated in this pilot study were: What ecoliteracy competencies do students

		<p>respond to? How do students demonstrate learning using ecoliteracy-rich books? The texts produced by students were analyzed to understand how students represent the concept of ecoliteracy with respect to ecoliteracy domains. Student responses mostly fell into the cognitive domain as opposed to the emotional domain. These responses show how students extend learning by applying knowledge to events in everyday life, and a willingness to play with concepts. Outlined in the discussion was the need to match books with appropriate curricula to fulfil ecoliteracy goals, the importance of producing texts by young readers, and obstacles to developing ecoliteracy. (Hassan et al. 2018).</p>
<p><i>Cypriot Journal of Educational Sciences</i> Vol 16, Issue 4. 1450-1470</p>	<p>Salimi, Dardiri, A., Sujarwo (2021)</p>	<p>The results of the description of the ecoliteracy profile of natural school students show that the cognitive aspect was good enough as shown by a systematic understanding of nature; the emotional aspect was good as shown by high concern and empathy; the spiritual aspect was good as shown by respect for nature; the activity aspect was high as shown by the ability to apply ecological knowledge into life practices. (Salimi, Dardiri, and Sujarwo 2021).</p>
<p><i>International Journal of Evaluation and Research in Education (IJERE)</i> Vol.8, No.2. pp.255-264</p>	<p>Putri, S.S., Japar, M., Bagaskorowati, R. (2019)</p>	<p>The results showed that there was an increase in ecoliteracy skills and students became more active in the learning process and more courageous in expressing their opinions through project-based learning models. (Putri, Japar, and Bagaskorowati 2019).</p>
<p><i>International Research in Geographical and Environmental Education.</i> Vol.28. Issue 4. 309-323</p>	<p>Wallace, H.D. (2019)</p>	<p>The results showed that frequent visits by children to the garden help build familiarity and ownership of the garden. This intimacy with the garden creates a basis for perceptive observations of changes in plants and animals in the garden, increases empathy with living things, and builds interest in the natural environment. (Wallace 2019).</p>
<p><i>Journal of Education and Learning.</i> Vol.15. No.2.pp.178-187</p>	<p>Gunansyah, G., Zuhdi, U., Suprayitno, 'Aisy, M.R. (2021)</p>	<p>The results showed that sustainable development practices that have been implemented in primary schools in Surabaya are 1) diverse such as conservation which includes the stages of preservation, restoration, adaptation, and revitalisation as well as ecoliteracy to facilitate so that students can build</p>

		connections, awareness, and experience. 2) had been supported by the commitment of the school community and the leadership of the school principal as outlined in various policies and integrated into curricular and extracurricular activities; 3) had shown a number of indicators of sustainable development in the field of education. (Gunansyah et al. 2021).
<i>Education Sciences</i> . Vol.10	Kumpulainen, K., Byman, J., Renlund, J., Wong, C.C. (2020)	The results showed that children's augmented storying in nature is done through playful, affective, critical literacy, which imaginatively builds connections between the reality and fantasy they perceive (Kumpulainen et al. 2020).
<i>Journal of Social Studies Education Research</i> v.12., (4)	Syah, N., Hidayat, H., Yuca, V., Ardi, Z., Magistarina, E. (2021)	There were relationship between knowledge and attitude towards student behaviour both inside and outside school and significant differences between Adiwiyata-based schools and non Adiwiyata-based schools in terms of knowledge, attitudes, and student behaviour. Therefore, the Adiwiyata Programme has an effect on increasing students' ecoliteracy. (Fitri, Syahputra, and Syahputra 2019).

RQ2. What factors cause students' ecoliteracy skills to improve?

The results of ecoliteracy learning research that has been done are about ecoliteracy with problem-solving models and project-based models. However, there is no specific model for ecoliteracy learning. This research is only limited to solving previous studies related to ecoliteracy learning. SLR is carried out by identifying, evaluating and interpreting related to the availability of the topic or problem under study (Calderón and Ruiz 2015). SLR research contributions are in the form of secondary studies ((Kitchenham 2007)). Therefore, it is very possible to carry out further research on specific learning models for ecoliteracy in elementary schools.

RQ3. Why this method widely used in ecoliteracy research?

Based on the data included, there are 2 articles that discuss schools with environmental programmes. Ultimately, the goal of ecoliteracy was to enable a holistic experience with nature based on cognitive understanding, emotional connection, and spirit attitude. The research results in the articles explain the ecoliteracy profile of nature school students which shows that the cognitive aspect was good enough as shown by a systematic understanding of nature; the emotional aspect was good as shown by high concern and empathy; the spiritual aspect was good as shown by respect for nature; the activity aspect was high as shown by the ability to apply ecological knowledge into life practices. Learning outside the classroom was important to improve students' ecoliteracy skills because it will accustom them to have empathy towards living things. Teachers should be able to provide meaningful experiences such as learning outside the classroom so that students can grow their empathy.

4. Conclusions

Based on the research results, it can be concluded that there are only three articles in ecoliteracy research for teaching models or methods in elementary school. Even though there are eight articles that discuss ecoliteracy in elementary schools. The importance of ecoliteracy that has been instilled since elementary school has become the initial foundation for environmental awareness. Ecoliteracy learning in elementary schools is very important and can be improved through problem-solving, project-based models and the use of ecoliteracy teaching materials. Nature school contributes well to the understanding of ecoliteracy, spiritually, emotionally and activity. Learning that provides direct experience makes learning meaningful so that a sense of empathy for fellow living beings is present in the souls of students. In addition, imaginative learning can also foster students' critical thinking. As a recommendation from this study, there is a tendency to research ecoliteracy in learning in the teaching materials used, but a special model or method of ecoliteracy learning is needed.

References

- Benavot, Aaron. 2014. "Education for Sustainable Development in Primary and Secondary Education." *University at Albany State University of New York* (October):43. doi: 10.13140/RG.2.1.1978.9283.
- Calderón, Alejandro, and Mercedes Ruiz. 2015. "A Systematic Literature Review on Serious Games Evaluation: An Application to Software Project Management." *Computers and Education* 87:396–422. doi: 10.1016/j.compedu.2015.07.011.
- Desfandi, Mirza, Enok Maryani, and Disman Disman. 2017. "Building Ecoliteracy Through Adiwiyata Program (Study at Adiwiyata School in Banda Aceh)." *Indonesian Journal of Geography* 49(1):51. doi: 10.22146/ijg.11230.
- Fitri, Syamsah, Edi Syahputra, and Hermawan Syahputra. 2019. "Blended Learning Rotation Model of Cognitive Conflict Strategy to Improve Mathematical Resilience in High School Students." *International Journal of Scientific and Technology Research* 8(12):80–87.
- Gunansyah, Ganes, Ulhaq Zuhdi, Suprayitno Suprayitno, and Manda Rohadatul Aisy. 2021. "Sustainable Development Education Practices in Elementary Schools." *Journal of Education and Learning (EduLearn)* 15(2):178–87. doi: 10.11591/edulearn.v15i2.17091.
- Hassan, Zainudin, Jayalatchmee Muthusamy, Lokman Tahir, Rohaya Talib, Sanitah Mohd Yusof, and Noor Azean Atan. 2018. "The 21st Century Learning in Malaysian Primary School: Exploring Teachers' Understanding and Implementation of HOTS." *Advances in Social Science, Education and Humanities Research* 274:326–36. doi: 10.2991/iccite-18.2018.69.
- Karlina¹, Fanny, I. Nyoman, Sudana Degeng², and Ach Amirudin. 2017. "Ecoliteracy Siswa Sd Dalam Kegiatan Pengelolaan Sampah Melalui Group Investigation Berbasis Outdoor Study." *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan* 2(7):991–1002.
- Kitchenham. 2007. *Guidelines for Performing Systematic Literature Reviews in Software Engineering*. Vol. 2.
- Kumpulainen, Kristiina, Jenny Byman, Jenny Renlund, and Chin Chin Wong. 2020. "Children's Augmented Storying in, with and for Nature." *Education Sciences* 10(6):149. doi: 10.3390/educsci10060149.
- Maulana, Muhammad Andrian, Mohammad Kanzannudin, and Siti Masfuah. 2021.

- “Analisis Ekoliterasi Siswa Pada Sekolah Adiwiyata Di Sekolah Dasar.” *Jurnal Basicedu* 5(3):1683–88.
- Oktarina, Elsi, Kristi Wardhani, and Endah Marwanti. 2020. “IMPLEMENTASI ENVIRONMENTAL LITERACY DI SD NEGERI BAKALAN BANTUL.” *Taman Cendekia: Jurnal Pendidikan Ke-SD-An* 4(2):492–500. doi: 10.30738/tc.v4i2.8648.
- Palmer, Joy. 2002. “Environmental Education in the 21st Century.”
- Prastiwi, Lenny, Diana Vivanti Sigit, and Rizhal Hendi Ristanto. 2019. “Ecological Literacy, Environmental Awareness, Academic Ability and Environmental Problem-Solving Skill at Adiwiyata School.” *Indonesian Journal of Science and Education* 3(2):82. doi: 10.31002/ijose.v3i2.1114.
- Putri, Sekarsari Sunaryo, Muhammad Japar, and Riana Bagaskorowati. 2019. “Increasing Ecoliteracy and Student Creativity in Waste Utilization by Using models in Project Based Learning Social Studies Learning.” *International Journal of Evaluation and Research in Education (IJERE)* 8(2):255. doi: 10.11591/ijere.v8i2.18901.
- Rachmawati, Annisa, and Minsih. 2021. “Belajar Bersama Alam Sebagai Bentuk Penerapan Ekoliterasi Pada Sekolah Alam.” *Cendekiawan* 3(2):79–91. doi: 10.35438/cendekiawan.v3i2.216.
- Ramadhan, Ahmad Fajar, and Jun Surjanti. 2022. “Pengaruh Ekoliterasi Dan Pendekatan ESD Terhadap Sikap Peduli Lingkungan Peserta Didik.” *Jurnal Education and Development Institut Pendidikan Tapanuli Selatan* 10(3):129–34.
- Ramadhan, M., and M. Hartono. 2021. “Implementasi Kurikulum Pendidikan Jasmani Di Institute of Technical Education College East, Singapore Tahun 2018.” ... *Journal for Physical Education and ...*
- Rosyid, Novi Utami, Budi Aman Budi Aman, and Uswatun Hasanah. 2019. “Improving Coastal Children Eco-Literacy in Environmental Learning Through Mangroves Storytelling.” *Formatif: Jurnal Ilmiah Pendidikan MIPA* 9(3). doi: 10.30998/formatif.v9i3.3651.
- S. Clark, J. Bruce, and A. Dude. 2006. “Protecting Young Women from HIV/AIDS: The Case against Child and Adolescent Marriage.” *International Family Planning Perspectives* 32(2):79–88.
- Salimi, Moh, Achmad Dardiri, and Sujarwo Sujarwo. 2021. “The Profile of Students’ Eco-Literacy at Nature Primary School.” *Cypriot Journal of Educational Sciences* 16(4):1450–70. doi: 10.18844/cjes.v16i4.5999.
- Setyaningrum, Tri Wahyu, and Ganes Gunansyah. 2020. “Praktik Pembelajaran Ekoliterasi Berorientasi Pendidikan Untuk Pembangunan Berkelanjutan Di Sekolah Dasar Negeri Kota Surabaya Bagian Barat.” *Jurnal Penelitian Pendidikan Guru Sekolah Dasar* 8(2):375–84.
- Sitorus, Lampola, and Aldi Herindra Lasso. 2021. “Pendidikan Karakter Peduli Lingkungan Melalui Pembiasaan Dan Pembudayaan Di Sekolah Menengah Pertama.” *Edukatif: Jurnal Ilmu Pendidikan* 3(5):2206–16.
- Susanto, Ratnawati, Harlinda Syofyan, and Reza Rachmadtullah. 2020. “Measurement of Professional Performance: Statesmanship, Entrepreneurship and Innovation.” *Proceedings of the Proceedings of the 1st Padjadjaran Communication Conference Series, PCCS 2019, 9 October 2019, Bandung, West Java, Indonesia.*
- Wallace, Heather D. 2019. “Transdisciplinary Learning in a Kitchen Garden: Connecting to Nature and Constructing a Path to Ecoliteracy?” *International Research in Geographical and Environmental Education* 28(4):309–23. doi: 10.1080/10382046.2019.1646013.

Wijaya, Wisnu Budi, Kadek Jayanthi Riva Prathiwi, and Ni Made Muliani. 2021. "Pengembangan Literasi Ekologi Siswa Sekolah Dasar." *Adi Widya: Jurnal Pendidikan Dasar* 6(1):46. doi: 10.25078/aw.v6i1.2115.