Integrating indigenous learning through an ethnopedagogical perspective in elementary schools: A systematic literature review

Sabila Hikmah Syafiulia[1*], Styo Mahendra Wasita Aji[2], Joeang Salsabiltisa De Side[3]

[1,3] School of Education, University of Adelaide, South Australia
[2] Department Elementary Teacher Education, Universitas Negeri Surabaya, Surabaya, Indonesia

*Corresponding author: sabilahikmah.syafiulia@adelaide.edu.au

A R T I C L E I N F O	A B S T R A C T
	Indonesia possesses a rich diversity of cultures and local knowledge that can significantly enrich educational practices in elementary schools. However, these local values are often overlooked in formal education, despite their potential to strengthen cultural identity and promote social justice. This study aims to explore the definition, impact, and research gaps related to Indigenous Learning (IL) within the context of ethnopedagogy in elementary education. The method employed is a Systematic Literature Review (SLR) guided by PRISMA, based on an analysis of 18 Scopus-indexed articles published between 2021 and 2025. The results indicate that IL promotes social learning, community participation, and inclusive educational practices that enhance students' academic outcomes and preserve cultural authenticity. Furthermore, the study finds that the role of local leadership in the education system needs to be further investigated to support culturally responsive education. Thus, IL offers valuable insights for elementary school educators in implementing inclusive teaching approaches and in strengthening students' resilience and cultural identity. In conclusion, the integration of local wisdom-based learning through an ethnopedagogical perspective is highly relevant and strategic for building elementary education that is culturally rooted, socially just, and adaptive to future challenges.

INTRODUCTION

The ethnopedagogical paradigm in primary school education serves as an alternative strategy that can be used in learning, promoting local culture in this globalized world and making it more sustainable. Ethnopedology has been widely known as a learning approach which is the realisation of actual local wisdom (Sugara, 2022; Syam & Sujarwo, 2023). This paradigm emphasizes the implications for an educational model that prioritizes local context, also known as *"Muatan Lokal"* (Sugara, 2022; Winarni et al., 2023). The role of ethnopedagogy in education, especially in Indonesia can be an approach to managing the country's potential. Indonesia is well-known as a culturally rich country, which manifests in the cultural wealth, norms and local wisdom; therefore, potentially enriching learning material and process (Fatmi & Fauzan, 2022; Nursima, 2020).

Indonesia has thousands of local knowledge and wisdom that can be used as resources for community empowerment and enrichment (Nursima, 2020; Sugara, 2022). Indonesian territory includes more than 17,000 islands with more than 1,000 ethnic groups and diverse languages. Essentially, this wealth can be cultivated for community learning through the ethnopedagogical paradigm. This is supporting the main goal of ethnopedagogy that is to utilize the culture as the resource of learning and education where students can gain understanding and develop a sense of pride in their own cultural heritage (Oktavianti & Ratnasari, 2018; Puspita et al., 2024). Furthermore, this local-specific approach can be an alternative to connect learning by starting from what is close and familiar to students. More importantly, applying ethnopedagogy in primary school education is pivotal, as the process of preserving the culture may be disrupted, if the local culture is not well introduced from an early age (Septiani et al., 2020).

In line with this approach, IL can be seen as a core component in ethnopedagogy since it focuses on transmitting local knowledge, values, and tradition through culturally embedded educational experiences. Sugara suggested that this discourse on ethnopedagogy is still evolving (Sugara, 2022). However, this does not imply that the development of studies is going well, aspects of local empowerment have not been optimised (Oktavianti & Ratnasari, 2018; Sugara, 2022). In the meantime, there are local studies that are indigenous in nature that can also be utilised in fostering the study of ethnopedagogical paradigm, the term is "*Indigenous Learning*" or IL. The condition of a land and customs play a significant role in education throughout the years (Bowra et al., 2021). The existing in indigenous life such as culture, and way of life has made the study of indigenous learning potentially grow and continue in the perspective of ethnopedagogy. IL also refers to learning in culture, which means that local knowledge and culture as the weapon to learn about a place and the people (Casanova et al., 2021). Through IL at an early age, it is expected to arouse students' curiosity about culture and language that will be embedded in subsequent lessons that they will experience at school (Wood, 2023).

Cultural learning and local wisdom have shown its benefits (Kurnio, 2021), such as local cultural knowledge and local wisdom in disaster, has been found useful as a disaster warning in Indonesian regions. Furthermore, a study in Taiwan suggested including local cultural elements in learning that will connect the learning content in schools and daily customs (Huang & Chan, 2024). The importance of re-examining local elements in learning will be related to sustainable learning innovation as it opens opportunities about sustainability for a more inclusive future (El Yazidi & Rijal, 2024). Moreover, cultural knowledge and perceptions of customs are significantly related to student learning outcomes (Suarta et al., 2022). Some of the studies above indicate that there is research related to IL. However, there are still limited studies that systematically examine indigenous learning for primary schools.

METHOD

Research Design

This research on IL in elementary school uses the systematic literature review (SLR) method to conduct search and analysis. The use of the SLR method to identify, sort, test feasibility, input data, analyse, and present data. In using SLR refers to the Preferred Reporting Items for

Systematic reviews and Meta-Analyses (PRISMA) systematic technique. Referring to (Liberati et al., 2009), four steps are taken through identification, screening, eligibility, and presenting objectively based on selected articles included in the review. Thus, this research seeks to explore indigenous learning in primary schools through three research questions, as follows:

RQ1: How have previous studies defined indigenous learning in primary schools?

RQ2: What is the impact of indigenous learning in primary schools?

RQ3: What are the gaps in future research that can be conducted on indigenous learning in primary schools?

Inclusion and Exclusion Criteria

There are 8 criteria for inclusion and exclusion. First, the search for literature documents as data using the help of Publish or Perish 8 by first inputting the API key from Scopus. Second, the criteria used are articles indexed by Scopus. Third, selecting articles with publications limitations 2021-2025. Fourth, the search is only focused on scientific articles, meaning that dissertations, theses, and seminar papers are not included. Fifth, selecting articles with an English language base. Sixth, selecting articles that have an H-index. Seventh, selecting articles that have open access, where selected articles can be downloaded pdf through the help of Zotero, and the duplicate article will be excluded during the selection process to ensure the uniqueness and relevance of the studies included in the review. Eighth, the search was linked to the topic of indigenous learning.

Filtering and Eligibility Assessment for Data Analysis

Filtering was done using the publish or perish 8 application on 11th April 2024. It was completed using keywords linked to themes according to the focus of this research. Based on the initial search conducted, it is presented in table 1 below.

Table 1. The result of using publish or perish 8 using keywords with the theme of indigenous learning in primary schools.

| No.	Keywords	Quantity of Paper
1	Indigenous Learning	200
2	Indigenous Learning Elementary School	30
3	Indigenous Education Elementary School	42
4	Indigenous Education	200
5	Indigenous elementary school	79
	Total	551

Based on the research with the assistance of Publish or Perish with the article period 2021 – 2025, there are 551 articles found. There are 92 articles that have an h-index. Open access articles and 60 duplicate articles are excluded. Finally, 18 related articles that are feasible are used. The data from this article is stored in the form/file type (.RIS). The files were then presented using the VOS Viewer application to describe and analyse the bibliometric network of the articles.

Following the steps, (1) opening the VOS Viewer application, (2) inserting the RIS data that has been stored, (3) reading data from the RIS file, (4) visualising keywords connected to the theme of Indigenous Learning (IL). The following is an illustration of words related to the topic of IL depicted in **Figure 1.**
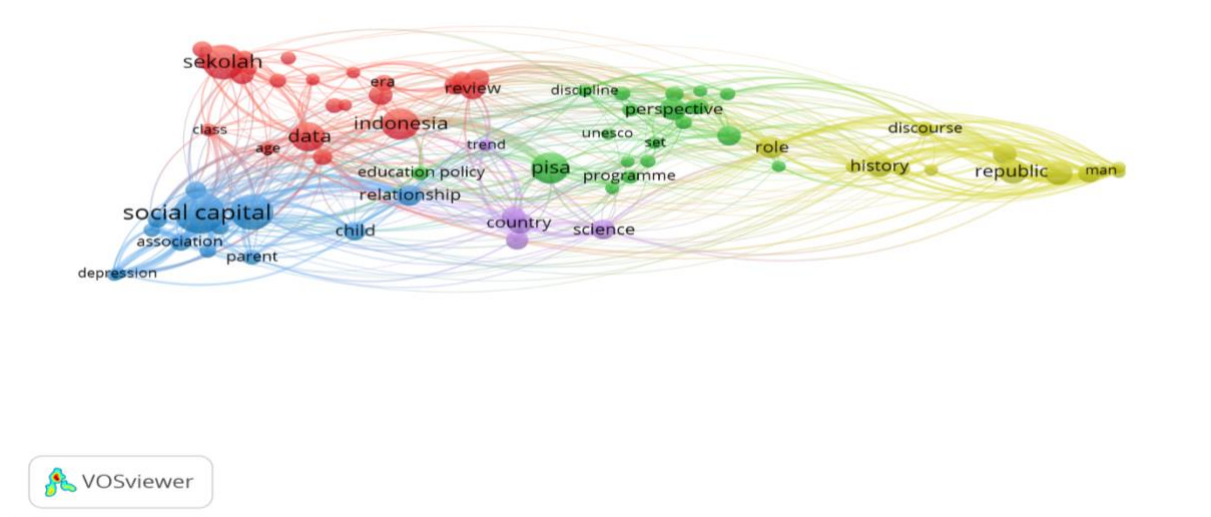
Figure 1. Visualisation of words related to the topic Indigenous Learning (IL).

Figure 1 illustrates the relationship between terms. The relationship between terms indicates the connection between terms that often appear and are related to indigenous learning. Terms that are strongly connected include social capital, school, data, PISA, Indonesia, review, and republic. However, there are less strong word links in relation to indigenous learning terms such as discourse, role, and depression. The network density of the topic groups related to indigenous learning is presented in Figure 2. Visualisation of article distribution density based on keywords.
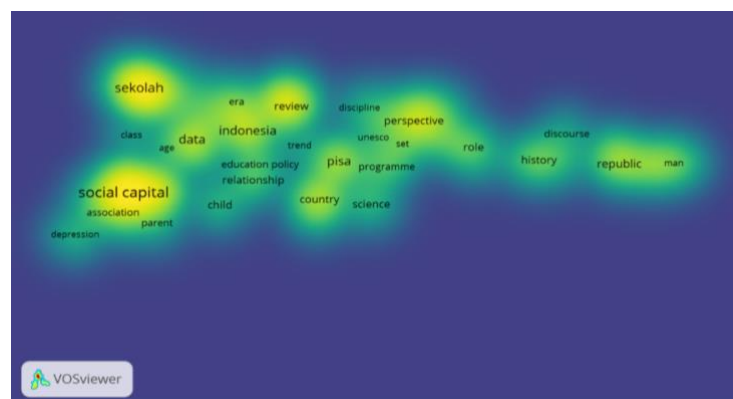

Figure 2. Visualisation of article distribution based on keywords.

PRISMA Guideline

As described earlier, in this research, the screening of articles goes through four stages. The flow of search to screening refers to the PRISMA guidelines. The three steps taken start from

identification, screening, eligibility and selection. In the identification stage, a total of 551 articles were initially identified through the Scopus database using the Publish *or Perish 8* tool. The search used specific keywords related to IL. Through screening stage, from 551 articles, 92 articles were retained based h-index category which means they have contributed to the study of indigenous learning. Duplicated articles and articles with non-open access, meaning they have similarities; therefore, they are discarded. Hence, after removing duplicates and inaccessible articles, 60 articles remained. To check the eligibility, 60 articles were assessed for relevance based on titles, abstracts, and keywords. The remaining 60 articles are discarded because they are irrelevant. Finally, out of 60 articles, 18 were selected and analysed using atlas.ti based on the formulation of the research questions.
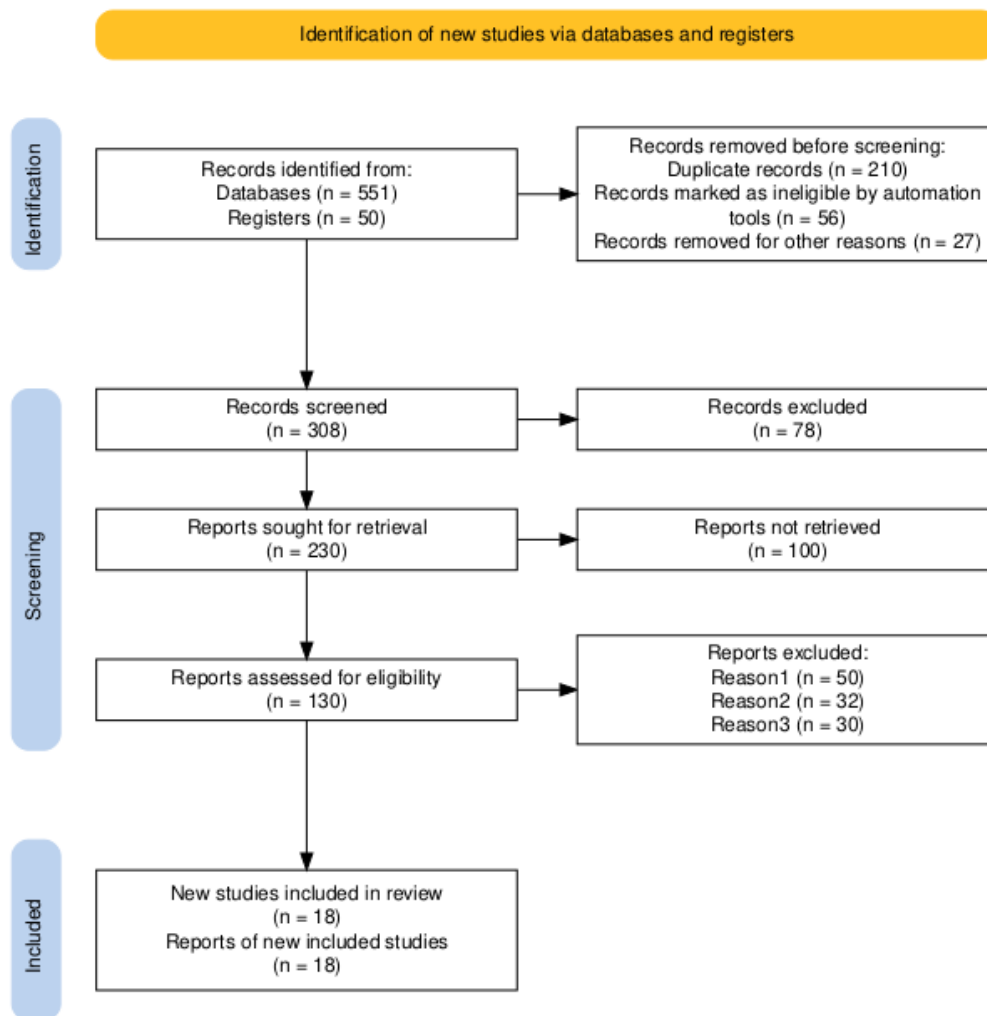
Figure 3. PRISMA Guidelines in screening the articles

RESULT

Based on the PRISMA guideline results, 18 articles were selected for review and eligible for this study. The results and discussion is based on the research questions. The first results and discussion are related to the definition of indigenous learning. Furthermore, the second is the

impact of indigenous learning. It ends with the results and discussion about the research gap related to indigenous learning. The following 18 articles are selected from the Scopus database.

Table 2. 18 Selected articles were found based on SCOPUS database

No.	Study (year)	Type of Research	Context	RQ		
				1	**2**	**3**
1	(Abdullah, 2022)	Systematic Review	Malaysia	✓	✓	✓
2	(Bishop, 2021)	Conceptual Review	Australia	✓	✓	✓
3	(Burgess, 2022)	Case Study	Australia	✓	✓	✓
4	(Chiblow, 2022)	Reflective	Scotland	✓		✓
5	(Choudhury, 2021)	Qualitative-Community-Based Participatory Research	Bangladesh	✓	✓	✓
6	(Edwards, 2022)	Review	Amerika Selatan, Afrika, dan Asia Tenggara	✓		
7	(Gore, 2021)	Quasi experiment	Australia		✓	
8	(Gromova, 2021)	Interpretive Research Paradigm and an Exploratory Qualitative Design	Russia	✓	✓	✓
9	(Husain, 2021)	Ethnographic Approach	Indonesia	✓	✓	
10	(Jim, 2021)	Qualitative interprétative	Republic of the Marshall Islands	✓	✓	✓
11	(Kurnio, 2021)	Qualitative	Indonesia	✓	✓	✓
12	(Léger-Goodes, 2022)	SLR-PRISMA	Amerika Serikat	✓	✓	✓
13	(Lejano, 2021)	Conceptual	Global Context	✓	✓	✓
14	(Mbah, 2021)	SLR-PRISMA	Global Context	✓	✓	
15	(Mertens, 2021)	A transformative approach includes the use of mixed methods	Global Context	✓	✓	
16	(Thunig, 2021)	Qualitative	Australia	✓	✓	
17	(Zajko, 2021)	Conceptual	Australia	✓	✓	✓
18	(Zurba, 2022)	SLR	Canada		✓	✓

The study of IL is connected to the meaning of social learning, where this learning is to build and strengthen community resilience (Choudhury, 2021). Through IL, education emphasizes an integrated approach that is contextually appropriate; specifically, their socio-cultural background and their experiences that are proven to be useful (Abdullah, 2022; Mbah, 2021). In other words, the approach is useful to community resilience by valuing and incorporating indigenous ways into educational practice. This approach portrays holistic learning that provides space for indigenous communities and people to revitalise learning through acknowledging the custom as the central point in their learning (Chiblow, 2022; Mertens, 2021). Which means that the approach matters to uphold equity within school structures (Zajko, 2021).

This approach provides learning opportunities that are not associated with conventional educational practices (Jim, 2021). In fact, indigenous learning therefore seeks the latest inferences

from local and indigenous knowledge that have relevance to advance teaching practice (Kurnio, 2021). This way, it is expected that IL will help learners to improve their academic achievement by integrating their cultural background toward their learning (Gromova, 2021). Likewise, (Bishop, 2021) emphasizes that IL is proven successful to be implemented in the education system. In other words, it is also appropriate to be implemented in primary schools due to the fact that it is responsive learning (Burgess, 2022). This foundation of IL sets a stage for acknowledging its broader impact, specifically its contribution towards social and educational equity.

DISCUSSION

1. The Impact of Indigenous Learning

IL is a form of social learning, which impacts community engagement by positioning the community members as active agents in the learning process (Choudhury, 2021). The use of local wisdom or indigenous attributes in the educational context represents a responsive strategy to the evolving needs of education; thus, this approach is highly worthy of consideration and recognition (Lejano, 2021; Mbah, 2021). More specifically, the study of IL benefits minority and marginalized groups by fostering greater recognition and respect. IL researchers could find a middle ground to discover knowledge that could be done through an attempt to transform knowledge in society (Lejano, 2021; Zurba, 2022). It does not need to be radical, but with determined steps that will fight against inequality (Zajko, 2021). Scholars suggest that this approach creates significant opportunities for less-appreciated Indigenous communities and serves to challenge injustices faced by oppressed groups, therefore revitalizing learning (Mertens, 2021; Thunig, 2021).

IL also acts as a powerful tool to address systemic problems that affect education and cultural survival (Burgess, 2022). Particularly, to reinforce education's responsibility to uphold Indigenous visions and contribute meaningfully to the future of their communities (Bishop, 2021). This highlights the essential responsibility of schools to honour and preserve traditional customs, ensuring they are not overshadowed (Husain, 2021). Hence, given the transformative power of indigenous knowledge and practice as learning assets to enrich pedagogical practice and thinking, ultimately, IL contributes to the improvement of students' academic performance (Gore, 2021; Gromova, 2021; Jim, 2021). the role of leadership and institutional responsibility in promoting IL requires further academic exploration, specifically in the under-searched areas.

2. Research Gap in the Indigenous Learning

Research on Indigenous learning continues to evolve, offering new opportunities for further academic investigation. In the future, it is necessary to further explore the role of leadership in promoting IL. As suggested by (Choudhury, 2021) that institutions often exclude indigenous and local context from social learning processes; therefore, there is an urge to explore the extent of leadership role or institutions in making local context as an effective source of learning (Choudhury, 2021). Moreover, (Jim, 2021) also added the urgency to find relevant ways to synchronize leadership and education in the IL context. Eventually, addressing the role of leadership in addressing the inequities in indigenous education, is essential for preparing children with the adaptive and resilience towards changes (Kurnio, 2021; Léger-Goodes, 2022).

Future research could re-examine the school balance since the model in schools has a tendency towards western education based that are not meant to be resisted, so that alternatives can be looked for to develop indigenous education models both in axiology, ontology, and epistemology (Bishop, 2021). Specifically, school models that will lead to cultural responsiveness and balance the overall learning (Burgess, 2022; Chiblow, 2022). Therefore, to protect the indigenous, immigrant, and other oppressed groups with their own culture (Gromova, 2021). Future research might explore further on how indigenous leadership approaches could be integrated into mainstream schooling systems without eradicating the cultural authenticity or the indigenous identity of school communities. Hence, future research should aim to elevate inclusive and culturally sustaining school climates that uphold Indegenous identity while balancing modern educational demands.

CONCLUSION

Indigenous Learning (IL) can develop in alignment with the strengthening of ethnopedagogical perspectives. IL in primary schools connects formal education with community participation in its role as an agent of education. IL will become an essential part of indigenous-based learning that influences formal education. Knowledge that was previously marginalized now gains recognition within the education system. Indigenous, cultural, local, and native education whether in native or immigrant contexts can promote future resilience in children and improve learning outcomes. Therefore, the implementation of IL within the ethnopedagogical perspective in primary education can be a valuable focus for future research, particularly in amplifying local voices, producing knowledge, and sharing knowledge in early formal education settings. The impact of this study lies in providing a strong conceptual and practical foundation for educators and policymakers to systematically integrate local wisdom-based learning, thereby promoting a more inclusive, relevant, and socially just education in primary schools.

REFERENCES

Abdullah, A. H. (2022). A Systematic Review of What Malaysia Can Learn to Improve Orang Asli Students' Mathematics Learning from Other Countries. *Sustainability (Switzerland)*, *14*(20). https://doi.org/10.3390/su142013201

Bishop, M. (2021). Decolonising schooling practices through relationality and reciprocity: Embedding local Aboriginal perspectives in the classroom. *Pedagogy, Culture and Society*, *29*(2), 193–211. https://doi.org/10.1080/14681366.2019.1704844

Bowra, A., Mashford-Pringle, A., & Poland, B. (2021). Indigenous learning on Turtle Island: A review of the literature on land-based learning. *The Canadian Geographer/Le Géographe Canadien*, *65*(2), 132–140.

Burgess, C. (2022). Decolonising Indigenous education: The case for cultural mentoring in supporting Indigenous knowledge reproduction. *Discourse*, *43*(1), 1–14. https://doi.org/10.1080/01596306.2020.1774513

Casanova, S., Mesinas, M., & Martinez-Ortega, S. (2021). Cultural knowledge as opportunities for empowerment: Learning and development for Mexican Indigenous youth. *Diaspora, Indigenous, and Minority Education*, *15*(3), 193–207.

Chiblow, S. (2022). Language is land, land is language: The importance of Indigenous languages. *Human Geography(United Kingdom)*, *15*(2), 206–210. https://doi.org/10.1177/19427786211022899

Choudhury, M. U. I. (2021). Social learning for building community resilience to cyclones: Role of indigenous and local knowledge, power, and institutions in coastal bangladesh. *Ecology and Society*, *26*(1). https://doi.org/10.5751/ES-12107-260105

Edwards, S. V. (2022). The Evolution of Comparative Phylogeography: Putting the Geography (and More) into Comparative Population Genomics. *Genome Biology and Evolution*, *14*(1). https://doi.org/10.1093/gbe/evab176

El Yazidi, R., & Rijal, K. (2024). Science learning in the context of'indigenous knowledge'for sustainable development. *International Journal of Ethnoscience and Technology in Education*, *1*(1), 28–41.

Fatmi, N., & Fauzan, F. (2022). Kajian pendekatan etnopedagogi dalam pendidikan melalui kearifan lokal Aceh. *Al-Madaris Jurnal Pendidikan Dan Studi Keislaman*, *3*(2), 31–41.

Gore, J. (2021). The impact of COVID-19 on student learning in New South Wales primary schools: An empirical study. *Australian Educational Researcher*, *48*(4), 605–637. https://doi.org/10.1007/s13384-021-00436-w

Gromova, C. (2021). Educational practices for immigrant children in elementary schools in Russia. *Education Sciences*, *11*(7). https://doi.org/10.3390/educsci11070325

Huang, H. T., & Chan, H. Y. (2024). Heritage identity and Indigenous language learning motivation: A case of Indigenous Taiwanese high school students. *The Modern Language Journal*, *108*(S1), 127–146.

Husain, S. B. (2021). Education for all: A study on education for indigenous people in south sulawesi, indonesia. *Kasetsart Journal of Social Sciences*, *42*(3), 623–629. https://doi.org/10.34044/j.kjss.2021.42.3.25

Jim, D. (2021). Kanne lobal: A conceptual framework relating education and leadership partnerships in the Marshall islands. *Waikato Journal of Education*, *26*(Query date: 2025-04-12 19:41:47), 135–147. https://doi.org/10.15663/wje.v26i1.785

Kurnio, H. (2021). Resilience learning and indigenous knowledge of earthquake risk in Indonesia. *International Journal of Disaster Risk Reduction*, *62*(Query date: 2025-04-16 10:32:22). https://doi.org/10.1016/j.ijdrr.2021.102423

Léger-Goodes, T. (2022). Eco-anxiety in children: A scoping review of the mental health impacts of the awareness of climate change. *Frontiers in Psychology*, *13*(Query date: 2025-04-16 10:58:13). https://doi.org/10.3389/fpsyg.2022.872544

Lejano, R. P. (2021). Co-production of risk knowledge and improvement of risk communication: A three-legged stool. *International Journal of Disaster Risk Reduction*, *64*(Query date: 2025-04-16 10:32:22). https://doi.org/10.1016/j.ijdrr.2021.102508

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration. *PLoS Medicine*, *6*(7), e1000100. https://doi.org/10.1371/journal.pmed.1000100

Mbah, M. (2021). A systematic review of the deployment of indigenous knowledge systems towards climate change adaptation in developing world contexts: Implications for climate change education. *Sustainability (Switzerland)*, *13*(9). https://doi.org/10.3390/su13094811

Mertens, D. M. (2021). Transformative Research Methods to Increase Social Impact for Vulnerable Groups and Cultural Minorities. *International Journal of Qualitative Methods*, *20*(Query date: 2025-04-16 10:32:22). https://doi.org/10.1177/16094069211051563

Nursima, I. (2020). *Etnopedagogi di Sekolah Dasar (Studi Etnografi dalam Pembelajaran Tematik di MI ma'arif Setono Jenangan Ponorogo)*.

Oktavianti, I., & Ratnasari, Y. (2018). Etnopedagogi dalam pembelajaran di sekolah dasar melalui media berbasis kearifan lokal. *Refleksi Edukatika: Jurnal Ilmiah Kependidikan*, *8*(2).

Puspita, A. M. I., SD, S. P., Suryanti, M. P., Mariana, N., & Paksi, H. P. (2024). *Etnopedagogi Berkelanjutan di Pendidikan Dasar*. Indonesia Emas Group.

Septiani, N., Hernawati, D., & Putra, R. R. (2020). Biodiversity of potentially "lalapan" vegetables in Kampung Adat Naga, Tasikmalaya, Indonesia. *Biosfer: Jurnal Pendidikan Biologi*, *13*(2), 201–215.

Suarta, I. M., Noortyani, R., Yarsama, K., & Adhiti, I. A. I. (2022). The role of Teachers' indigenous knowledge and cultural competencies in enhancing students' engagement and learning outcomes. *Journal of Ethnic and Cultural Studies*, *9*(1), 244–264.

Sugara, U. (2022). Etnopedagogi: Gagasan dan Peluang Penerapannya di Indonesia. *Jurnal Pendidikan Dan Kebudayaan*, *7*(2), 93–104.

Syam, S., & Sujarwo, W. (2023). *Penerapan etnopedagogi dalam pembelajaran biologi*. *2*(1), 17–25.

Thunig, A. (2021). 'Don't make me play house-n***er': Indigenous academic women treated as 'black performer' within higher education. *Australian Educational Researcher*, *48*(3), 397–417. https://doi.org/10.1007/s13384-020-00405-9

Winarni, R., Slamet, S. Y., & Syawaludin, A. (2023). *Multimedia Interaktif Berbasis Etnopedagogi untuk Pembelajaran Santun Berbahasa di Sekolah Dasar*.

Wood, J. (2023). An Indigenous Early Childhood Pedagogy. In *Perspectives on Indigenous Pedagogy in Education: Learning From One Another* (pp. 170–192). IGI Global.

Zajko, M. (2021). Conservative AI and social inequality: Conceptualizing alternatives to bias through social theory. *AI and Society*, *36*(3), 1047–1056. https://doi.org/10.1007/s00146-021-01153-9

Zurba, M. (2022). Learning from knowledge co-production research and practice in the twenty-first century: Global lessons and what they mean for collaborative research in Nunatsiavut. *Sustainability Science*, *17*(2), 449–467. https://doi.org/10.1007/s11625-021-00996-x