

Climate Change Education: Cross-Cultural Perspectives

ECNU Review of Education

1–4

© The Author(s) 2024

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/20965311241237243

journals.sagepub.com/home/roe**Junqing Zhai** (翟俊卿) 

Zhejiang University

Justin Dillon 

University College London

Vaile Dawson 

The University of Western Australia

Date received: 23 January 2024; accepted: 30 January 2024

In our contemporary world, climate change has emerged not merely as an environmental challenge, but as a complex, multifaceted issue interwoven with educational, cultural, policy, and societal transformations (Wals et al., 2014). As the global community confronts the escalating impacts of climate change, the role of education in diverse cultural and social contexts becomes increasingly clear. This Special Issue of the journal, dedicated to Climate Change Education (CCE), aims to explore and deepen the understanding of the topic from a cross-cultural perspective in line with the urgency highlighted by the United Nations Sustainable Development Goal 13 (Sustainable Development Solutions Network, 2015).

The theme of CCE was selected for its pivotal role in the current academic discourse, practical application, and policy development (Howell & Allen, 2019; Kenis & Mathijs, 2012; Lundholm, 2019; Rousell & Cutter-Mackenzie-Knowles, 2020). Recognizing that the impact and responses to climate change are deeply rooted in local and cultural contexts (Dillon & Herman, 2023), this Special Issue seeks to bridge some of the gaps identified in the existing literature, focusing

Corresponding author:

Junqing Zhai, College of Education, Zhejiang University, 866 Yu Hang Tang Road, 310058 Hangzhou, China.

Email: jqzhai@zju.edu.cn

Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the SAGE and Open Access page (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

particularly on cross-cultural comparisons and global educational strategies. The articles selected cover a diverse range of geographical and sociocultural settings, each contributing unique insights into the realm of CCE.

The research presented spans multiple continents and a variety of educational settings, reflecting the rich tapestry of global diversity. From the small-scale dairy farms in Encarnación de Díaz, Jalisco, Mexico, to the school communities in Porto, Portugal, the selected studies underscore the significance of integrating local sociocultural elements into CCE strategies. The Special Issue also includes research from Chile, highlighting prevalent misconceptions among educators, regardless of their scientific background.

Studies from different regions and cultures further enrich our understanding of the global scope and relevance of CCE. This geographical and cultural diversity is critical in understanding its complex nature. It emphasizes the importance of considering local, regional, and national perspectives in developing effective educational strategies. As noted by Dillon and Herman (2023), perceptions of climate change, and the responses to it, can vary significantly across different cultural and political landscapes. This observation is pivotal in the design and implementation of culturally sensitive and globally informed CCE.

This Special Issue presents a diverse collection of studies that simultaneously address the theoretical underpinnings and practical implications of CCE in various cultural contexts. For example, Ramos de Robles et al. (2024) explore the experiences of small-scale dairy farmers in Mexico. Their study presents an educational model that weaves local knowledge into climate change adaptation strategies. This research not only challenges conventional paradigms by valuing local and indigenous knowledge systems but also offers practical insights into community-specific CCE strategies.

Barbosa et al. (2024) demonstrate the impact of participatory methods in a Portuguese community-school intervention. Their work emphasizes the effectiveness of community engagement in fostering environmental citizenship, enriching the understanding of environmental stewardship in education. This study serves as a replicable model for participatory approaches in CCE worldwide.

In critiquing existing CCE frameworks, Eilam (2024) advocates for the development of a distinct and culturally sensitive curriculum. This study pushes the boundaries of traditional CCE, emphasizing the need for an inclusive curriculum that embraces diverse cultural insights, thereby significantly broadening the scope of CCE.

Abasto et al.'s (2024) research in Chile highlights the common misconceptions about climate change among both science and non-science teachers. Their findings point to the urgent need for enhanced climate literacy and professional development in CCE, with direct implications for teacher training programs and educational policy.

Employing Bruno Latour's concepts, Jeong and Silverman (2024) explore how students' local environmental perceptions can foster a sense of global belonging. This innovative approach adds a

new dimension to the socio-political aspects of CCE, emphasizing the importance of contextual and place-based education.

Finally, Madden et al. (2024) from New Jersey, USA, delve into parents' perspectives on CCE, emphasizing the significant role of family in climate education. Their study suggests the need for educational strategies that consider familial and cultural backgrounds, highlighting the role of parents in supporting CCE initiatives.

Through these diverse yet interconnected studies, this Special Issue advocates for a holistic and globally informed approach to CCE. It emphasizes the importance of considering the socio-cultural dynamics in different regions for developing effective, culturally relevant educational strategies and policies. As the global community grapples with climate change, the insights from these papers provide valuable guidance for the future direction of CCE, both in theory and practice.

Building on the foundations laid by the papers, several directions for future research in CCE emerge. One key area is the exploration of the effectiveness of CCE strategies across different cultural contexts, particularly focusing on how local and indigenous knowledge can be more systematically integrated into global CCE frameworks. This could involve comparative studies across various geographical locations to better understand the transferability and adaptability of educational strategies.

Another promising direction is the development and testing of new theoretical frameworks that embrace a more holistic understanding of climate change. This could include research that bridges the gap between environmental science, social justice, cultural studies, and education, offering a more nuanced and comprehensive approach to CCE. Additionally, there is a need for methodological innovation in CCE research, particularly in the use of participatory and co-creative methods that engage communities and educators as active participants in the research process.

Investigating the long-term impacts of CCE programs on behavioral change and environmental stewardship also represents a critical area of future research. This includes examining how attitudes and actions evolve and the role of different educational approaches in fostering sustained environmental engagement and activism.

In conclusion, we believe that this Special Issue makes a significant contribution to the area of CCE by highlighting the importance of culturally and contextually responsive approaches. The papers collectively emphasize the need for educational strategies that are not only locally relevant but also informed by a global perspective. They offer new theoretical insights, showcase methodological innovations, and provide practical implications for educators and policymakers.


Declaration of conflicting interests


The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.


Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Junqing Zhai acknowledges the support of ZJU-UCL Strategic Partner Funds.

ORCID iDs

Junqing Zhai  <https://orcid.org/0000-0003-1810-7466>

Justin Dillon  <https://orcid.org/0000-0001-5154-8306>

Vaillie Dawson  <https://orcid.org/0000-0003-1754-9086>

References

- Abasto, V., Larraín, A., Vergara, C., & Cofré, H. (2024). Alternative conceptions about climate change in a group of teachers in Chile: Are science teachers more knowledgeable than non-science teachers? *ECNU Review of Education*.
- Dillon, J., & Herman, B. C. (2023). Environmental education. In N. G. Lederman, D. L. Zeidler, & J. S. Lederman (Eds.), *Handbook of research on science education* (3rd ed.). Routledge.
- Howell, R. A., & Allen, S. (2019). Significant life experiences, motivations and values of climate change educators. *Environmental Education Research*, 25(6), 813–831. <https://doi.org/10.1080/13504622.2016.1158242>
- Jeong, S., & Silverman, E. H. (2024). Bringing the politics of climate change down to earth: Student descriptions of dwelling place and “geo-geographies” as alternative belongings. *ECNU Review of Education*.
- Kenis, A., & Mathijs, E. (2012). Beyond individual behaviour change: The role of power, knowledge and strategy in tackling climate change. *Environmental Education Research*, 18(1), 45–65. <https://doi.org/10.1080/13504622.2011.576315>
- Lundholm, C. (2019). Where to look and what to do? Blank and bright spots in research on environmental and climate change education. *Environmental Education Research*, 25(10), 1427–1437. <https://doi.org/10.1080/13504622.2019.1700066>
- Madden, L., Joshi, A., Wang, M., Turner, J., & Lindsay, S. (2024). Parents’ perspectives on climate change education: A case study from New Jersey. *ECNU Review of Education*.
- Rousell, D., & Cutter-Mackenzie-Knowles, A. (2020). A systematic review of climate change education: Giving children and young people a ‘voice’ and a ‘hand’ in redressing climate change. *Children’s Geographies*, 18, 191–208. <https://doi.org/10.1080/14733285.2019.1614532>
- Sustainable Development Solutions Network. (2015). *Indicators and a monitoring framework for the sustainable development goals—Launching a data revolution for the SDGs*. <https://sustainabledevelopment.un.org/content/documents/2013150612-FINAL-SDSN-Indicator-Report1.pdf>
- Wals, A. E. J., Brody, M., Dillon, J., & Stevenson, R. B. (2014). Convergence between science and environmental education. *Science*, 344(6184), 583–584. <https://doi.org/10.1126/science.1250515>