

# Disaster literacy and citizenship education: a pedagogical imperative for the 21st Century

Volume 9 Issue 6 - 2025

Omer Cem Karacaoglu<sup>1,2</sup><sup>1</sup>University of Delaware, Disaster Research Center, USA<sup>2</sup>Aydin Adnan Menderes University, Turkey**Correspondence:** Omer Cem Karacaoglu, University of Delaware, Disaster Research Center, Newark, USA, Aydin Adnan Menderes University, Aydin, Turkey**Received:** December 7, 2025 | **Published:** December 12, 2025

## Editorial

In an era where uncertainty is increasingly defining factors, from climate change to pandemics and mega-disasters, our education systems face new responsibilities. Among these, disaster literacy is emerging not only as a life-saving skill but also as a crucial component of 21st-century citizenship education.<sup>1</sup> This editorial, drawing on our recent research and field observations, addresses the urgent need to integrate disaster preparedness, resilience, and critical information skills into education systems.

The 2023 Turkish earthquake tragically reminded us that resilience is not solely the domain of engineers and emergency managers, but a societal trait that begins in schools. The experiences of survivors have shown that access to reliable information, emotional regulation, and collective solidarity are as vital as physical escape routes. In our recent study,<sup>2</sup> we found that communities with higher levels of disaster literacy and digital information skills respond more adaptively to crisis situations.

Furthermore, today's citizenship education cannot be limited to voting rights and civic duties. Furthermore, it must also develop the capacity to act responsibly under uncertainty, to evaluate information in chaotic digital environments, and to contribute to building societal resilience. Therefore, disaster literacy is not merely an environmental element, but the essence of active and informed citizenship.

The role of teachers is equally critical. The evolving responsibilities of educators require competencies beyond curriculum delivery.

<sup>1</sup>This editorial draws on recent publications and field research conducted by the University of Delaware Disaster Research Center, as well as international collaborations on disaster education, digital citizenship, and sustainable school education.

<sup>2</sup>Karacaoglu OC, Peek L. Enhancing disaster preparedness: individual and community skills for resilience and adaptive response. NHC Researchers Meeting, Cross-Sector Partnerships Session for Effective Disaster Management; 2025.

Teachers must now serve as facilitators of critical thinking, emotional resilience, and ethical digital behavior, particularly in disaster-prone environments. Our ongoing projects on digital disaster education and sustainable school practices confirm that curriculum design should be interdisciplinary, experiential, and equity-focused.

Pedagogical change also necessitates the innovative use of technology. AI-powered simulations, virtual drills, and real-time data dashboards can support interactive, contextual learning for both students and educators. However, technology is only as effective as the critical literacies that underpin its use. Therefore, integrating data literacy and misinformation awareness into disaster education is essential.

In conclusion, as we enter an era where disasters are no longer the exception but a recurring feature of life, it is imperative that we reconsider our educational missions. Disaster literacy should be considered not as an optional enrichment element, but as a fundamental pillar of modern education and social cohesion. Through this holistic and predictive education, we can not only create safer societies but also raise more knowledgeable, compassionate, and resilient generations.

## Acknowledgments

None.

## Conflicts of interest

The author declares no conflicts of interest.