

Between computational thinking and literacy in mathematics education

Elicer, Raimundo

Published in:

Proceedings of the 48th Conference of the International Group for the Psychology of Mathematics Education

Publication date:
2025

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):

Elicer, R. (2025). Between computational thinking and literacy in mathematics education. In C. Cornejo, P. Felmer, D. M. Gómez, P. Dartnell, P. Araya, A. Peri, & V. Randolph (Eds.), *Proceedings of the 48th Conference of the International Group for the Psychology of Mathematics Education: General Contributions* (pp. 205). PME.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

Take down policy

If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

BETWEEN COMPUTATIONAL THINKING AND LITERACY IN MATHEMATICS EDUCATION

Raimundo Elicer

Department of Sustainability and Planning, Aalborg University, Denmark

In this essay, I critically engage with arguments regarding the trend of including programming and other computing contents into school mathematics education. I differentiate and compare two perspectives on this regard: computational thinking and computational literacy. Based on Niss' (1996) view on purposes of mathematics teaching, I delineate four aspects for consideration: political, contingent, disciplinary and empirical. My position is threefold. First, computational thinking is more accessible for implementation and assessment purposes. Second, computational literacy is a more radical view on the role of computing, beyond a tool for teaching traditional mathematics. Third, computational literacy has a more robust grounding, which may work as a necessary alternative to the state of the actual.