

Humanizing Mathematical Modeling

CULTURE, IDENTITY AND
CIVIC TRANSFORMATION

Modeling is more than mathematics. It is how we understand our world, honor our knowledge, shape a just and inclusive future.



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Humanizing Mathematical Modeling: Culture, Identity, and Civic Transformation

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Mathematical modeling is often framed as a neutral, technical activity centered on representing real-world situations, making assumptions, generating solutions, and validating results. Yet scholarship in socio-critical modeling, ethnomodeling, and humanizing mathematics shows that modeling is also shaped by culture, identity, participation, values, and power. Decisions about what counts as evidence, which assumptions are foregrounded, whose knowledge is recognized, and how results are communicated all shape what modeling becomes in classrooms, communities, and public life.

This special issue of *Investigations in Mathematics Learning* (IML) invites empirical, theoretical, methodological, design-based, participatory, and conceptual manuscripts that examine mathematical modeling as a cultural, relational, and civic practice. We seek scholarly contributions that move beyond treating modeling solely as a technical competency and instead explore how modeling can support rigorous mathematics while also attending to belonging, recognition, community knowledge, ethical reasoning, and public consequence.

We welcome manuscripts addressing topics such as:

- socio-critical, decolonial, or humanizing perspectives on mathematical modeling
- ethnomodeling and cultural or community-based mathematical knowledge
- belonging, recognition, identity, participation, and positioning in the mathematical modeling activity
- data, representation, visualization, omission, bias, and power in modeling
- modeling for civic engagement, public reasoning, social justice, or community action
- teacher education and professional learning for equitable and culturally grounded modeling
- modeling in multilingual, transnational, cross-cultural, or community-based contexts
- methodological approaches for studying relational, cultural, ethical, or civic dimensions of modeling
- connections among modeling, data science education, critical statistical literacy, and community-engaged mathematics.

We are especially interested in scholarly manuscripts examining how modeling is designed and enacted in K-12 classrooms, teacher education, community-based settings, and cross-cultural contexts. Submissions may use qualitative, quantitative, mixed-methods, design-based, participatory, conceptual, or theoretical approaches. Across these approaches, we seek work that advances a broader vision of modeling as simultaneously technical, cultural, relational, and civic.

Submission Instructions:

The submission deadline for extended abstracts is October 1, 2026. Authors should submit extended abstracts as PDFs to the guest editorial team at IMLHumanizingModeling@gmail.com with the subject line “IML Extended Abstract.” If you have questions about the topics or submission process, please email the editorial team.

Each extended abstract is limited to five (5) double-spaced pages, including references. References may be single-spaced. Extended abstracts should be written in 12-point Times New Roman font and must follow APA 7 guidelines.

Extended abstracts should include:

1. A brief description of the problem, topic, or phenomenon under investigation
2. Clearly stated research questions, guiding questions, or theoretical/design aim(s)
3. An explicit discussion of how the manuscript conceptualizes mathematical modeling as cultural, relational, civic, socio-critical, ethnomodelling-oriented, and/or humanizing
4. A description of context, methods, data sources, findings/results, and if applicable, implications
5. A statement of the manuscript's anticipated contribution to the special issue and to mathematics education research and/or practice.

Guest editors will provide feedback on extended abstracts by November 1, 2026. Authors whose abstracts are invited forward will be asked to submit full manuscripts by January 2, 2027. All full manuscripts will undergo the standard double-blind peer review process for IML. An invitation to submit a full manuscript does not guarantee publication.

Full manuscripts for this special issue may not exceed 35 double-spaced pages, including text, abstract, references, tables, figures, and appendices. Full manuscripts should be written in 12-point font with one-inch margins and must follow APA 7 guidelines. References may be single-spaced; however, all other text should be double-spaced. Tables and figures may be placed on individual pages or embedded within the text, but not both. **It is an IML requirement that published manuscripts have at least one author who is a current member of the Research Council on Mathematics Learning at the time the manuscript is accepted.**

Timeline:

Milestone	Date
Call released	July 1, 2026
Extended abstracts due	October 1, 2026
Editor feedback and decisions on abstracts	November 1, 2026
Full manuscripts due	January 2, 2027
Manuscript reviews and decisions returned to authors	March 30, 2027
Accepted manuscript revisions due	June 1, 2027
Second round of manuscript reviews returned to authors	August 31, 2027
Final manuscripts due	October 2, 2027