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Editorial

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1 50 years of mathematics education research

Congratulations to the *Journal for Research in Mathematics Education* (JRME) on its 50th anniversary! As Niss (2019) concluded in his reflections on the nature of our discipline, mathematics education as a research domain is about half a century old. In and around 1969, many important events coalesced. The first International Congress on Mathematical Education (ICME) took place in 1969. In the same year, *ZDM Mathematics Education* (then titled *Zentralblatt für Didaktik der Mathematik*) was founded. *Educational Studies in Mathematics* (ESM), founded a year earlier, has just celebrated its 50th birthday with an historical paper on the inception of ESM in 1968 (Beckers, 2019), a virtual special issue with papers selected by previous editors of ESM (Bakker, 2019), a critical reflection on the publication process (Mesa & Wagner, 2019), and a review paper on mathematical thinking by the former editor-in-chief (Goos & Kaya, 2020).

In early 2019, the editor-in-chief of JRME, Jinfa Cai, approached me to brainstorm about ways to celebrate this milestone of our discipline which went beyond the anniversaries of individual journals. I welcomed this gesture of jointly aiming to push our field forward. The first materialization of our intentions was a joint editorial with several editors of journals in our field (Bakker et al., 2019). Although this editorial's topic, effect sizes, is not one of the major themes in our research domain, we were worried about several trends in interpreting effect sizes, both in research and in educational practice. First, many authors interpret effect sizes as small, medium, or large on the basis of benchmark tables, without taking into consideration the many factors that influence their magnitude. As journal editors, we hope to stop that widespread interpretation. Second, evidence-based policy as promoted in several countries (e.g., Australia, Canada, UK, USA) has come to be based on effect sizes, which we consider to be a mistake with huge consequences. Such policy is not only extremely expensive; it also steers education and research in possibly undesirable directions. Simpson (2019, 2020) explains the error of interpreting effect sizes as measures of the effectiveness of an intervention and the harm of doing so (Simpson, 2018).

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Table 1 Submission and acceptance statistics

	2014	2015	2016	2017	2018	June 2019
Number of submissions	320	274	281	322	301	184
Number of acceptances	57	78	60	51	69	27
Acceptance rate (%)	21	25	22	17	23	15

The second materialization of our joint effort to push mathematics education research forward was a joint international survey on the question, *What themes or research questions should mathematics education research focus on in the coming decade?* We are currently analyzing the 229 responses from 43 countries across 6 continents. We intend to present the results and reflect on them in future ESM editorials.

2 Growth of educational studies in mathematics

In 2019, ESM received more submissions than ever before. Table 1 presents information on the number of manuscripts submitted and accepted since 2014 until June 2019. The table shows the increasing trend in number of manuscripts submitted (as of this writing, 10 December 2019, we have received 408 manuscripts). The increase in submissions has resulted in increased work for the team of editors and the editorial board and in adjusting our work flow: We have been more selective about manuscripts that are sent out for review (increasing number of desk returns and rejections), increasing the size of the editorial board and installing an editorial support team.

As editors, we were faced more and more often with the situation that editorial board (EB) members who we would like to invite to review already have agreed to review two or three other manuscripts. Consequently, we have decided to extend the board, using the opportunity to expand geographical representation. The following colleagues have accepted our invitation: Mellony Graven and Hamsa Venkat (South Africa), Lisa Darragh and Margaret Walshaw (New Zealand), Taro Fujita (UK, originally from Japan), Oh Nam Kwon (South Korea), Stanislaw Schukajlow (Germany, originally from Ukraine), Michal Tabach (Israel), and Luz Valoyes-Chavez (Chile).

With the increasing workload on everyone, I am happy to announce that four of my mathematics education colleagues are willing to form an editorial support team at Utrecht University: Rogier Bos, Paul Drijvers, Michiel Doorman, and Anna Shvarts. Nathalie Kuijpers provides secretarial assistance and assists in proofreading.

Along with the increased number of submissions, the rising impact factor (see Table 2) and increasing downloads (Table 3) are a healthy sign of the esteem our journal is held in by the mathematics education research community.

Table 2 Impact factors over the 2014–2018 Period

	2014	2015	2016	2017	2018
2-year impact factor	0.579	0.839	0.959	1.100	1.292
5-year impact factor	0.854	1.217	1.370	1.438	1.634

Table 3 Downloads and Social Media Mentions

	2014	2015	2016	2017	2018	Sept 2019
Number of full-text article downloads	153,659	158,750	163,111	179,618	210,962	192,064
Number of social media mentions	76	235	442	600	?	?

3 Updates

In 2019, ESM published the following special issues:

- *Affect and mathematics in young children* (Batchelor, Torbeyns, & Verschaffel, 2019)
- *Rituals and explorations in mathematical teaching and learning* (Heyd-Metzuyanim & Graven, 2019)
- *Different ways to large scale implementation of innovative teaching approaches* (Maass, Cobb, Krainer, & Potari, 2019)

Special issues on the following topics are in the pipeline:

- *Davydov's approach in the twenty-first century*, guest-edited by Linda Venenciano, Elena Polotskaia, Maria Mellone, and Luis Radford
- *Affect and problem posing*, guest-edited by Jinfa Cai and Roza Leikin
- *Innovations in measuring and fostering modeling competencies*, guest-edited by Gabriele Kaiser and Stanislaw Schukajlow

For guidelines on how to submit a special issue proposal, see the editorial by Goos (2018). One change compared to the 2018 guidelines is that ESM has room for slightly larger special issues with up to ten articles. We welcome two types of proposals: with a predefined set of contributions or with open calls. The latter has the advantage of reaching out to new scholars, especially those who might not be able to attend conferences and might therefore be unknown to the guest editors.

Thanks to the research conducted by Mesa and Wagner (2019) among previous ESM editors, we have many points to reflect on, as current editors. In a series of meetings, we have decided, for example, that editors are allowed to publish in ESM. One of the main reasons is that we work with colleagues, especially early career colleagues, who may want to submit joint work to ESM. Discouraging them to submit to ESM would be unfair, and prohibiting editors to be coauthors on such submission could result in ghost authorship—a contribution by one scholar who is not acknowledged as coauthor. Coauthoring editors are blinded to the review process, and their work is treated as any other author's. Similarly, guest editors are allowed to publish in the special issue they edit.

Given the importance of language both in education (Prediger, 2019; Smit, Bakker, Van Eerde, & Kuijpers, 2016) and research (Meaney, 2013), we encourage authors quoting data in languages other than English to include the original transcripts where they are of added value. The number of words in these original languages can be subtracted from the total word count.

Another decision we took is to replace the current 8000-word equivalent by a limit of 7000 words for the body of the text. The word equivalent is difficult to measure and led to confusion. Some authors economized on references which were relevant for situating the study. The new author guidelines state:

> The body text of a manuscript can be up to 7000 words. Appendices are part of the body text. The following parts of a manuscript do not count as body text: title, abstract, key words, acknowledgments, references, figures, tables, and electronic supplementary materials. Transcripts and quotations from data in the original language other than English can be excluded from the word count.

If authors are convinced that their work falls in the scope of ESM but cannot be presented in less than 7000 words, they can ask—before submission—the editor-in-chief (a.bakker4@uu.nl) for permission to submit a somewhat longer manuscript. In the subsequent review process, editors and reviewers can still make suggestions to shorten the manuscript.

4 Thank you

Elizabeth de Freitas has resigned as associate editor. We thank her for the dedication and the thorough scholarship she has brought to her work as editor for ESM but also as an author. Her ESM articles with Nathalie Sinclair (de Freitas & Sinclair, 2012, 2013) were among the most cited in the years after publication. She was also sensitive to ethical issues that we discussed as editors. The previous editor-in-chief Merrilyn Goos noted that she "contributed an important theoretical dimension to the journal, not only through her own scholarly research but also her breadth of knowledge of critical theories in mathematics education." Thank you, Liz!

Susanne Prediger has joined the team of associate editors. We appreciate her accepting the invitation at such short notice. She is a prolific author and a central figure in the field (e.g., president of the European Society for Research in Mathematics Education), with a broad area of expertise and many research interests. Welcome, Susanne!

Pat Herbst has stepped down as EB member because he will be the new editor-in-chief of JRME (congratulations!). We thank him for his services to ESM for all those years.

I would further like to thank all associate editors: Angel Gutiérrez, Tamsin Meaney, Vilma Mesa,Susanne Prediger, Luis Radford, Wim Van Dooren, David Wagner, and book editor Gail FitzSimons. They helped to keep the work going even when I was out of office. They do wonderful work to keep up the standards of our journal, for instance, by helping authors (particularly from under-represented countries) to improve their manuscripts and by trying to bring down the time between submission and first decision.

As editors, we also acknowledge the important work that reviewers and editorial board members do not only for ESM but for the discipline of mathematics education research more broadly. Thank you all!

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References

Bakker, A. (2019). A virtual special issue to celebrate 100 volumes of *Educational Studies in Mathematics*: Former editors' choices. *Educational Studies in Mathematics*, *101*(1), 1–5.

Bakker, A., Cai, J., English, L., Kaiser, G., Mesa, V., & Van Dooren, W. (2019). Beyond small, medium, or large: Points of consideration when interpreting effect sizes. *Educational Studies in Mathematics*, *102*(1), 1–8.

Batchelor, S., Torbeyns, J., & Verschaffel, L. (2019). Affect and mathematics in young children: An introduction. *Educational Studies in Mathematics*, *100*(3), 201–209. https://doi.org/10.1007/s10649-018-9864-x

Beckers, D. (2019). Why to publish on mathematics education so as to be useful? *Educational Studies in Mathematics* and its founder Hans Freudenthal. *Educational Studies in Mathematics*, *101*(1), 7–17.

de Freitas, E., & Sinclair, N. (2012). Diagram, gesture, agency: Theorizing embodiment in the mathematics classroom. *Educational Studies in Mathematics*, *80*(1–2), 133–152.

de Freitas, E., & Sinclair, N. (2013). New materialist ontologies in mathematics education: The body in/of mathematics. *Educational Studies in Mathematics*, *83*(3), 453–470.

Goos, M. (2018). Editorial. *Educational Studies in Mathematics*, *97*(1), 1–3. https://doi.org/10.1007/s10649-017-9800-5

Goos, M., & Kaya, S. (2020). Understanding and promoting students' mathematical thinking: A review of research published in ESM. *Educational Studies in Mathematics*, *103*(1), 1–19. https://doi.org/10.1007/s10649-019-09921-7

Heyd-Metzuyanim, E., & Graven, M. (2019). Rituals and explorations in mathematical teaching and learning: Introduction to the special issue. *Educational Studies in Mathematics*, *101*(2), 141–151. https://doi.org/10.1007/s10649-019-09890-x

Maass, K., Cobb, P., Krainer, K., & Potari, D. (2019). Different ways to implement innovative teaching approaches at scale. *Educational Studies in Mathematics*, *102*(3), 1–16. https://doi.org/10.1007/s10649-019-09920-8

Meaney, T. (2013). *The privileging of English in mathematics education research, just a necessary evil?* In M. Berber, K. Brodie, V. Firth & K. Le roux (Eds.) *Proceedings of the 7th Mathematics, Education and Society Conference* (Vol. 1, pp. 65–84). Cape Town, South Africa: MES7.

Mesa, V., & Wagner, D. (2019). Behind the door: A critical look at the process of publication in *Educational Studies in Mathematics*. *Educational Studies in Mathematics,* 101(3), 1–24.

Niss, M. (2019). The very multi-faceted nature of mathematics education research. *For the Learning of Mathematics*, *39*(2), 2–7.

Prediger, S. (2019). Investigating and promoting teachers' expertise for language-responsive mathematics teaching. *Mathematics Education Research Journal*, *31*(4), 367–392. https://doi.org/10.1007/s13394-019-00258-1

Simpson, A. (2018). Princesses are bigger than elephants: Effect size as a category error in evidence-based education. *British Educational Research Journal*, *44*(5), 897–913.

Simpson, A. (2019). Separating arguments from conclusions: The mistaken role of effect size in educational policy research. *Educational Research and Evaluation*, 1–11.

Simpson, A. (2020). On the misinterpretation of effect size. *Educational Studies in Mathematics*, *103*.

Smit, J., Bakker, A., Van Eerde, D., & Kuijpers, M. (2016). Using genre pedagogy to promote student proficiency in the language required for interpreting line graphs. *Mathematics Education Research Journal*, *28*(3), 457–478.