

Call for papers

Educational Studies in Mathematics Special Issue

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Research-based interventions in mathematics classrooms: enhancing students' learning of proving

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We are calling for proposals of papers for a special issue of *Educational Studies in Mathematics*. The special issue will focus on research-based interventions in mathematics classrooms that specifically aim to enhance students' learning of proving. Proving has attracted considerable research attention over the past decades in part due to its indisputable importance to the discipline of mathematics and to students' learning of mathematics. Prior research has provided a rather strong empirical and theoretical basis about different kinds of learning difficulties students face with proving, thus enabling the design of classroom-based interventions that would aim to address some of these difficulties. Yet, although there are notable examples of research studies on classroom-based interventions in the area of proving, the number of these studies is small and acutely disproportionate to the number of studies that documented problems of students' learning. This special issue aims (a) to offer a collection of promising, empirically tested, and theory-based solutions to some key problems of students' learning of proving and (b) to inspire further research in this area.

In a guest editorial of a related special issue of another journal (ZDM, 2013, vol. 45, pp. 333–341), we discussed key features of research-based interventions in mathematics classrooms and we clarified key terms that we also use in the present call. In brief, we use the term “intervention” to denote action taken to improve a situation, which in this new special issue should relate to students' learning of proving. We use the term “classroom” broadly to denote a formal learning setting at any level of education: elementary, secondary, or university (including teacher education). We use the term “learning” in a broad sense, too, to denote both cognitive and affective aspects of students' mathematical experience. Finally, we recognize that there are several viable perspectives to the meaning of “proving,” which can serve different purposes in mathematics education research.

We invite proposals for papers that relate to any aspect of students' learning of proving. The proposals can be up to 1000 words (excluding references) and should include the following:

- Title of the paper, and author names and affiliations
- A statement of the particular aspect of students' learning that the intervention aimed to enhance and an explanation of the significance of such an intervention
- An outline of the intervention, its theoretical underpinnings, and the research involved in its design
- A description of the context where the intervention was implemented and how it was documented
- A summary of key (possibly preliminary) findings

Proposals must be submitted by August 1, 2015, to gabriel.stylianides@education.ox.ac.uk and as899@cam.ac.uk. Authors will be notified the outcome of their proposals by September 1, 2015. Submissions will be due on December 1, 2015. Following an internal (informal) review process involving the editors and other contributors to the special issue, the revised manuscripts will be sent for external (formal) review. We are anticipating a publication date in early 2017.