

Introduction

The British Congress of Mathematics Education, BCME, has its origins in an attempt by the British Society for Research into the Learning of Mathematics, BSRLM, to populate a gap in the 4-yearly international ICME conferences: BCME was originally intended to offer an opportunity for researchers in mathematics education to prepare for the international ICME, and to share their current work with interested others. Over time, BCME developed to have a rather broader remit, under the auspices of the UK Joint Mathematical Council, JMC, and in particular, to include addressing the interests and needs of those in the classroom-facing professional associations. Recent BCMEs, including BCME9, have been organised by JMC with particular input from BSRLM, ATM and MA, but supported also by other JMC participating bodies, and with a key aim of bringing together researchers and practitioners.

One strand of BCME9, held at University of Warwick 3-6 April 2018, therefore focused on current mathematics education research, and included over 50 such sessions. Post-conference, researchers were able to submit formal papers related to their conference sessions for peer review, and if accepted, to have those published in these *Research Proceedings*. Others opted instead to publish shorter papers in the all-comers' *Informal Proceedings*, now available at www.bcme9.org. The research strand featured novice researchers, some school- and some university-based, as well as welcoming those with more, sometimes substantial, research experience. One particular aim of the editorial team, though, was to particularly encourage and support those beginning their journey in mathematics education research, and differential support was available for such authors in their preparation of papers for this volume. It therefore represents the outcome of the formal peer-reviewed process for the range of accepted submissions, and it has been our very great pleasure to work with authors in preparing their papers for publication: we hope they will feel the outcome justifies their effort!

What we see exhibited here is the rude health of research in mathematics education in the UK, together with its variety - by phase of education from early years to adult, by research focus, and by theoretical and methodological framing. Papers are presented by alphabetical order of first author surname, but key themes include emerging modes of teacher education, the use of resources, including digital, in the mathematics classroom, and pathways to more effective formative assessment. English schools in particular are currently grappling with significant curriculum reform in mathematics and related areas, and we see that reflected in these papers in a constructive focus on ways to support learners in coming to achieve a deeper and more connected conceptual understanding, with well-developed mathematical reasoning and problem-solving capabilities: all are in some way addressed here, and all address issues which are of global interest in the 21st-century.

Most of the papers included in this volume report on small scale qualitative studies which, though not necessarily generalisable, offer reasonably nuanced indications of what might be achievable. They are complemented by other articles which report on emergent theoretical frameworks which have the potential to move our understanding of mathematics education in more focused, and sometimes new, directions.

We live in fast-changing times, where the broad aims of mathematics education might persist, but specific goals and the means to achieving those, as well as the applications of the resultant learning, are likely to remain fluid: challenging, but interesting, times for teachers and learners – and so of course, also for researchers. It is our belief that this volume, freely available online at www.bsrlm.org.uk/bcme-9/, will have achieved much of its purpose if it is used by both researchers and practitioners as a source of continued cross-community dialogue in pursuance of our common goal: of appropriately evolving and empowering mathematics education for all.

Jennie Golding
Nicola Bretscher
Cosette Crisan
Eirini Geraniou
Jeremy Hodgen
Candia Morgan (editors)
UCL Institute of Education, UK
October 2018