

Preface

The discourses of equity and quality in mathematics education have permeated the international debates about mathematics education whether they occur in the contexts of research, policy, curriculum or teaching and learning. Few would doubt that both provide valuable objectives to aim for—yet they provide serious challenges to confront in the planning and implementation of any endeavour in mathematics education. However, rather than being directly articulated, they often remain implicit and assumed. When they are articulated, their understandings are not clearly theorised. Arguably, of greater importance is that the relationship between them is often left unexamined. For some it may seem that equity and quality are distinct aspirations—yet not necessarily mutually exclusive. Others may see a necessary unity between them that one cannot be promoted without the other. Still others place more emphasis on the potential tension between attempts and resources targeted towards their promotion.

In putting together this compilation of chapters, we do not take these terms to have an essentialist meaning. Perhaps many debates in mathematics education can be constructed as debates about the meaning of equity and quality as much as a debate about their relative worth and ways to promote them. In our call for chapters, we identified from our review of the literature, some common associations of the two terms.

Concerns about *quality* mathematics education are often posed in terms of the types of mathematics that are worthwhile and valuable for both the student and society in general, and about how to best support learners so that they can develop this mathematics. Quality mathematics is sometimes measured from within the discipline of mathematics itself and is seen as a reflection of its rigor, formality and generalisability. Alternatively, the value of mathematics is often argued based on perceptions of its utilitarian importance such as individual mathematical literacy, the economic and technological well-being of a society, the participation of an informed citizenry in the challenges of a democratic society, and/or for opening up future opportunities for students in terms of their career goals and access to higher education. Trends gleaned from international comparisons have ignited debates within many countries about the low level of achievement of their students

internationally regardless whether mathematics is valued for its academic rigor or utilitarian literacy.

Concerns about *equity*, on the other hand address issues about who is excluded from the opportunity to develop quality mathematics within our current practices and systems, and about how to remove social barriers that systematically disadvantage those students. Equity concerns in mathematics education are no longer seen at the margins of mathematics education policy, research and practice. Issues relating to ability, gender, language, multiculturalism, ethnomathematics, the effects of ethnicity, indigeneity, and the significance of socio-economic and cultural backgrounds of students on their participation and performance in mathematics are widely discussed in the literature. This is not to say, however, that the problem of equity is exclusive of students who are positioned as disadvantaged due to their association with any of the categories above; nor that the growing focus on the issue has in any way been totally resolved across countries and within any society. Rather, insofar as access to quality mathematics is thought to confer benefits on individuals and the larger society, concerns for equity and access revolve around the impacts on an individual's life and social participation and on the larger society's continued well-being when that access and its benefits are systematically restricted from and/or systematically provided to people on the basis of their or their parents' social placements.

In our international invitation for chapters, we identified one overall aim behind this collection as mapping the terrain of mathematics education research and practice—that is on how to understand and advance the quality and equity agendas. The main requirement for chapters was that they consider both agendas and how they relate to each other. We did not have a vision that this collection would provide a comprehensive inventory or a summary of all our individual and collective learnings about them. Rather, we attempted to illustrate the different views and perspectives on the issues in order to move forward the debate on their importance and promotion in the field.

Process Adopted in the Compilation: The initial idea of the book came out of a plenary panel discussion at the International Congress of Mathematics Education in Mexico in 2008 under the topic of Quality Mathematics Education for All¹. A call for chapter proposals was distributed electronically using several electronic lists of mathematics educators and teachers. Potential authors were encouraged to send printed copies of the call to others who may be interested but may have had limited access to email or international contacts. Similarly, we targeted our own individual contacts from countries that are less technologically developed.

The submitted proposals represented a wide range of academic and professional backgrounds (school teachers, researchers and university academics), levels of expertise in publications and academic writing (first-time authors, recent doctoral graduates, published authors and authors of books) and from a range of

¹ The plenary discussion was lead by Bill Atweh (Australia), Olimpia Figueras (Mexico), Murad Jurdak (Lebanon) and Catherine Vistro-Yu (The Philippines).

methodological investigations (from theoretical to empirical qualitative and quantitative studies) and theoretical perspectives (critical, social justice, postmodern and ethical). We were less successful, unfortunately, in attracting voices from countries less well represented in international dialogue and from countries of non-European language background. This remains a challenge to all international collaborations.

Submitted draft chapters were peer reviewed by the authors² in a non-blind review process. Our intention was to create a community of critical friends dedicated to the improvement of the quality of our publication rather than the traditional gate-keeping roles. It is fair to say that the reaction of the authors to this process was mixed. The modified chapters have undergone a second round of review by us as Editors.

The Structure of the Book: The chapters in the book are grouped into four parts; each part contains several contributions and a response chapter by one of the editors. The Part I, The Theoretical Landscape, consists of eight chapters which adopt different theoretical stances on the issues of equity and quality. As Secada observes in his reaction to the chapters:

1. Equity and quality are inherently political terms whose common political bed-rock is obscured by being taken for granted.
2. Equity and quality have nuanced meanings in everyday use and philosophically.
3. Scholarly inquiry about the nature of equity and of quality—either alone or linked—has taken a decidedly qualitative turn, focused on textual deconstruction and/or interviews with key informants.

Part II, Mapping Social Constructions and Complexities, consists of 11 chapters which address issues concerning quality and equity as well as their relationships, and highlight particular dimensions of what could be called the social and political constitution of the discourses of equity and quality in mathematics education. As Valero notes in her reaction contribution, the chapters in this section illustrate with empirical material, analysis and discussions, the way in which the discourses of equity and quality move in constant construction and recontextualisation from broad societal trends to the constitution of subjectivities, passing through policy, the media, pedagogy and reaching the learners. Valero concludes her comments on the chapters by raising the question of the social construction of quality and equity and the personal responsibility of an academic or teacher to attempt to promote them.

Part III, Landmarks of Concern, consists of ten chapters dealing with the special needs of different social groups traditionally identified as equity groups. The different authors cover a wide range of areas of disadvantage and exclusion from gender and social class; to race and ethnicity, and to physical and social alternative abilities. As Graven points out in her reaction to the chapters, discussion in this Part points to the need to dispel the myth that ‘same education’ for all results in equity. They illuminate the way in which a one size fits all as an approach, as often reflected in slogans such as ‘education for all’, tends to only provide quality

² Special thanks to two additional reviewers Jeanne L Higbee and Irene Duranczyk.

education for dominant groups. Specific groups require that curriculum and programs acknowledge their needs, the resources they bring and, perhaps more of a challenge is that conceptualisations of ‘quality’ need to be reconsidered from the perspective of marginalised groups.

Part IV, No Highway, No Destination, consists of ten chapters representing different lessons learnt by academic researchers and/or school practitioners from attempts to manage equity and quality within various educational contexts and with a variety of marginalised populations. As Atweh notes in his reaction to the chapters, collectively the chapters in this section point to the fact that action towards the objectives to raise the levels of both equity and quality in mathematics education is not only essential (as the many other chapters in this book argue) but that it is also possible. The message that there are many different paths towards promoting equity and quality and that the pathway may not always be smooth and journey remains always incomplete.

We submit this collection to the international community in mathematics education, not as summary of our collective knowledge in the area, nor as a catalogue of the different perspectives and views; rather as a means for continuing the dialogue on the discourses of equity and quality in mathematics education for the general benefit of the discipline itself and the societies it serves.

The Editors

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