

Acknowledgments

The idea for this book was born during the very fruitful collaboration of the three editors on the validation of a math screening for first-grade students into Turkish and Arabic (Gürsoy et al., 2020). The math screening had originally been developed and standardized in German (Ehlert et al., 2020) with the aim of evaluating the children's learning prerequisites at the start of school and giving teachers orientation for their teaching activities.

When presenting the test to teachers in the context of further training courses for the prevention of numeracy difficulties, they often mentioned that not all of the children in their classes spoke German well enough to understand the test. However, these children spoke another language in which their learning prerequisites for mathematics could be evaluated. This problem, how to design a screening for early arithmetic concepts that is fair in regard to language, brought together a psychologist specialized in the development of arithmetic concepts and mathematical learning difficulties (Annemarie Fritz), a linguist specialized in multilingualism and German as second language (Erkan Gürsoy), and a mathematics educator who just started learning psychological aspects of mathematical learning (Moritz Herzog).

Our meeting not only led to a validation of the test in the languages spoken by many children as their first language. It also drew our attention to the importance of language for the acquisition of mathematics. Our own diversity as researchers highlighted the importance of integrating the different perspectives and approaches of the relevant disciplines. With this book we have tried to contribute to this integration by enriching the discussion on the relation of language and mathematics learning.

Our first thank goes to the editors of the book series Bernt Ahrenholz (†), Christine Dimroth, Beate Lütke, and Martina Rost-Roth for including our book concept and make our publication possible. We thank all of them sincerely.

We would like to thank Julie Miess of De Gruyter publishing, who helped a lot while preparing this publication. As editors, we are very proud that this book was published open access. We thank the MERCATOR foundation for providing substantial financial support for this book as an open-access resource.

The success of a book naturally depends first and foremost on the contribution of authors. The idea behind the book was to bring together experts in the field of childhood development, in both language and mathematics knowledge. Authors came together from different scientific fields – psychology, mathematics education, special education, multilingualism, and (second) language acquisition – to write papers drawing from various theoretical perspectives, engaging with literature in the field and reporting on research findings. The resulting

overview, comprising 20 chapters, allows for a profound insight into the topic. We would like to thank the numerous authors who quickly became interested in the book and enriched this book with their well-researched chapters. It was an honor to bring this product to completion.

Our very special thanks go to Barbara Sarnecka, who with enthusiasm and without hesitation complied with our request to write the Preface.

Caroline Long was responsible for language editing. She worked meticulously through the texts to achieve conceptual clarity and assist the authors to convey their messages with assurance.