

The Role of Language in the Teaching and Learning of Early Grade Mathematics: An 11-year Account of Research in Kenya, Malawi and South Africa

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Abstract

The purpose of this study was to provide a systematic review of research that has been carried out between 2006 and 2016 on the role of language in early grade (Grades 1–4) mathematics teaching and learning in three countries—Kenya, Malawi and South Africa. These countries were selected because they have similar characteristics: teaching and learning occur in a multilingual context; their language in education policies are similar; transition from mother tongue to English happens during the early grades; and most of the learners learn mathematics in English—a language which for most is not their first/home language. Research outputs between 2006 and 2016 from the three countries were sourced from peer-reviewed mathematics and general education journals, monitoring and evaluation reports, and book chapters. Findings from the study revealed that there is a lack of longitudinal studies that investigate the impact of language on the teaching and learning of mathematics and that there are few studies on how teachers are and should be trained to teach mathematics in the early grades. The study also found that the implementation of the language in education policies in the three different focus countries is fraught with difficulties owing to a number of factors, amongst them the fact that the indigenous languages are not yet fully developed as academic languages. Finally, existing literature highlights the importance of the use of code switching and the provision of materials in the home language(s) of early graders. Recommendations regarding policy/curriculum, teacher education and pedagogic practices are made.

Keywords: Language and mathematics; multilingualism; language in education policy; language practices; teacher Education

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