

Fritz, A., Long, C., Herzog, M., Balzer, L., Ehlert, A., & Henning, E. (2020). Mismatch of the South African Foundation Phase Curriculum Demands and Learners' Current Knowledge. *African Journal of Research in Mathematics, Science and Technology Education*, 24(1), 10-20.

Against the background of the low mathematical performance of South African learners in international panel studies, there is an urgent need to improve mathematical education. In particular, the curriculum and its structure raise questions. It is logical that the prescribed curricula should align with learners' developmental trajectories. Given the hierarchical structure of mathematics, the curricular requirements should pay attention to learners' current knowledge of mathematical concepts. The aim of this study was to compare the curricular requirements as defined by the CAPS with the conceptual current knowledge of South African learners. South African Grade 1 learners (N = 602) were assessed on a test of numeracy concepts, based on a theoretically informed and empirically validated model of developing mathematical proficiency. The content of the CAPS for Grade 1 was aligned to the model levels by two experts (Cohen's $\kappa = .753$, $p < 0.001$). Results show that the curricular requirements go far beyond the current knowledge required to engage with these new concepts of the vast majority of South African Grade 1 learners. The mismatch may to some extent be responsible for the unsatisfactory results in international comparison studies. These results show that the intended curriculum is beyond the grasp of most South African Grade 1 learners. These children are unlikely to develop new arithmetic concepts based on their lack of required foundation knowledge. We therefore argue that the intended curriculum for Grade 1 should focus more on counting skills, ordinal relations between numbers and—most importantly— set-based number representations and part–part–whole relations.