Investigating a mathematics recovery program for assessment and intervention with groups of Grade 4 learners

This study reports on the findings of my research, which was based on an intervention focused on recovery of early arithmetic strategies with one Grade 4 class of learners in a township school in Port Elizabeth in the Eastern Cape. Learners came from poor socio-economic backgrounds and initial evaluations showed that the majority of learners still relied on concrete methods, like tally counting, to perform addition and subtraction calculations even with numbers less than 10. This is not uncommon in the South African context especially with learners in low Socio-economic Status (SES) schools. The results of numerous assessments including the Department of Education’s Annual National Assessments point to a crisis in primary mathematics education where intermediate phase learners are generally operating several grade levels below the grade they are in. A large drop in mathematics performance is seen in the ANA results in grade 4 learners (the first grade of the transition from foundation phase to intermediate phase). Within this context, and my background in learning support for students, my research aimed to understand the possibilities and constraints of the implementation of a recovery program adapted from the widely implemented work of Wright et al. (2006, 2012). The primary adaptation made to the MR program involved administering the assessments and intervention with groups of (rather than individual) learners. Within the context of the many low SES under-resourced schools in SA, individualised interview based assessments and recovery is not seen as a possible remediation strategy. Drawing on a socio-constructivist perspective, my study used action research with one class of 23 learners and found that adaptation of the MR program for a group, based on eight recovery sessions, was useful for enabling some progress for all learners in terms of their early arithmetic strategies and conceptual place value. Although the need for a longer recovery period is acknowledged, the adapted program enabled some progress in levels and stages of conceptual knowledge (as conceptualized by Wright et al.’s (2006) Learning Framework in Number) for these two domains. The study concludes with some reflections and recommendations for the future.