

Exploring the value of a teaching and learning intervention
(using an assessment **as** learning – conceptual thread approach)
in addressing acquired learning deficits in Mathematics in South Africa

ABSTRACT

The purpose of this study was to evaluate an **assessment as learning – conceptual thread** approach to the teaching and learning of Mathematics. The focus was on South African high school learners with acquired learning deficits that were causing functioning at levels as far back as Grade 2. Using a mixed-methods design, the study's key findings are: that learners can catch up between 3-6 grade levels despite limited contact time through using a diagnostic assessment **as** learning – conceptual thread approach for targeted intervention; that learners' acquired learning deficits are not necessarily insurmountable; and that Grade 10 is not too late to catch up on learners' grade-level achievement in Mathematics. The **assessment as learning – conceptual thread** approach provided value: for teachers in revealing the nature of learner difficulties; and for learners enabling their metacognitive activation and stimulating the advancement of their metacognitive skills. Learners developed skills of error detection, diagnosis and analysis; awareness of strengths, weaknesses, learning needs and opportunities; self-reflective performance analysis and self-evaluation of improvement strategies.

Keywords: formative assessment; assessment **as** learning; conceptual thread; conceptual landmarks; Mathematics catch-up; acquired learning deficits; metacognitive activation; metacognitive skills

Tracey Butchart
Student Number: 1298545
Protocol Number: 2016ECE043M

Supervised by:
Dr. Craig Pournara
Dr. Patrick Barmby

A Masters Dissertation submitted to the Wits School of Education
Faculty of Humanities, University of the Witwatersrand in August 2017