

## ABSTRACT

### An Exploration of Three Upper Secondary Students' Experiences in Learning Mathematics: A Biographical Case Study

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This inquiry arose from a long-time desire I had to look at students' experiences in their Mathematics learning as I tried to understand the low level of achievement in the subject. I used the Biographical Case Study methodology to explore the question, "What can we learn from students' experiences in the classroom and the home that have influenced their learning of Mathematics? Three articulate students were purposively selected, therefore they met the criteria of being brilliant overall but weak in Mathematics, being students in 4<sup>th</sup> form and willing to participate in the research. I gathered information through interviews, informal conversations, observation and home visits. I interviewed the students, their parents/guardian, their teachers and the head of the Mathematics department. I re-told the students' stories in the form of biographies, but included verbatim chunks to portray and amplify the students' voices, and to provide first hand testimony.

The biographies highlighted the issues which the students struggled with in their Mathematics learning. Issues of relevance, self perception, teacher practices, dependence, and parental modeling emerged from the biographies. The findings indicated that the students' Mathematics learning was influenced by their teachers' non-caring attitude to them and their conception of the subject. Their conception was determined by their prior experiences and teacher practices. The latter was routine, resulting in the students becoming dependent learners rather than creative thinkers in Mathematics classroom.