

ABSTRACT

Teaching-For-Thinking: The Implementation of Thinking-Focused Pedagogy in Two Grade 8 Mathematics Classrooms in Jamaica

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This thesis explores the ways in which two mathematics teachers interpreted and implemented thinking-focused pedagogy in their respective classrooms. The teachers worked in two different types of secondary schools – an upgraded high and a traditional high school – the former situated in rural Jamaica and the latter situated in the capital city, Kingston. The fieldwork was conducted using a qualitative case study and took place during the period September 2002 to August 2003. Based on data obtained from classroom observations, interviews and videotaped recordings, the thesis describes the classroom practices of the two teachers and the reactions of the students to the teachers' pedagogies. The main research findings indicated that the teachers used teaching strategies which were aimed at (i) enabling their students' access to mathematical ideas and mathematical tasks, (ii) motivating their thinking, and (iii) facilitating their students' sense of ownership and independence with respect to their solution methods. The learning environment which the teachers facilitated provided opportunities for students' collaboration both with the teachers and with their peers, and enabled the communication of students' methods. The teachers' personalities were found to be of special significance to the students and these positively affected their participation in classes. The thesis proposes that the implementation of thinking-focused pedagogy hinges on several factors: the context in which the teacher operates, the support (s)he receives from the school administration, the presence of a national commitment to thinking-focused pedagogy, the teacher's personality and the teacher's pedagogical content knowledge. A model for thinking-focused pedagogy in the mathematics classroom is put forward which sees the teacher and major stakeholders – government agencies, teacher-training institutions and the school administration playing critical roles.

Keywords: Camille Elizabeth Bell-Hutchinson, mathematical thinking, mathematics, thinking-focused pedagogy, teaching for thinking