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TEACHING MATHEMATICS IN A HIGH STAKES AND CURRICULUM REFORM ENVIRONMENT USING INQUIRY-BASED TEACHING

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Abstract: *This study is the examination of critical incidents drawn from the implementation of a new mathematics curriculum in a high stakes learning environment using Inquiry-based Teaching (IBT). The teacher in the study (also the second author) selected the critical incidents from her yearlong effort using IBT to implement the new mathematics curriculum at the Secondary Entrance Assessment (SEA) level in a primary school in Trinidad. These critical incidents comprised teacher-student dialogue during IBT implementation, student work samples, students' struggles, frustrations, and insights and the teacher's own reflections, emotions, challenges and musings during the process. The critical incidents also formed the core of the data and were subjected to both outsider and insider reflective analyses by the first and second authors respectively. These reflective analyses revealed that students at the same class level varied in their ability to apply the principles of IBT. They also showed that success was contingent upon critical thinking and that at times there was pedagogic regression to teacher-centered mechanisms and strategies. Further, time limitations presented additional pressures that compromised proper implementation of the new mathematics curriculum using IBT. These and other findings are discussed in relation to existing literature on IBT implementation and their implications for future efforts at contemporary pedagogies with student-centered orientations are explored.*

Keywords: *mathematics education, inquiry-based teaching, high-stakes environment, SEA.*

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