

DECLARATION

I, Lerato Mathenjwa, declare that this research report is my own, unaided work. It is being submitted for the degree of Master in science Education at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination in any other university.

(Signature of candidate)

25th day of May2010

ABSTRACT

This study is an action research project where I study my own practice in giving feedback in investigative tasks. The aim is to find ways of improving my feedback by engaging learners in conversation and eliciting misconceptions. The study is framed by a sociocultural view of learning and teaching. The study was conducted in a high school with a class of Grade 10 learners who worked on an investigative task and six lessons were video recorded. Analysis was based on the investigative task, feedback given to learners, misconceptions that arose and conversations that took place during the lessons. The findings are that when developing an investigative task, the teacher should look for mathematical processes that can be developed as learners work on it. I found that I both took up and missed opportunities to work with learners' misconceptions and that four components of mathematical conversations: questioning, explaining mathematical ideas, sources of mathematical ideas and responsibility were present at different levels in my classroom. On the basis of my findings I make a number of recommendations for my own further practice and for other teachers.

KEY CONCEPTS:

Investigations, feedback, misconceptions, conversations, formative assessment, summative assessment

DEDICATION

To my loving and caring mother, 'Ma Isaaka Diaho, this one is for you.

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First and foremost I thank God for wisdom, strength and good health.

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