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An investigation into the relationship between what learners find relevant and how they perform in the grade 11 science curriculum

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AN INVESTIGATION INTO THE RELATIONSHIP BETWEEN WHAT LEARNERS FIND RELEVANT AND HOW THEY PERFORM IN THE GRADE 11 SCIENCE CURRICULUM.

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Degree of Master of Science:

A research report submitted to the Faculty of Science, University of the Witwatersrand, Johannesburg, in partial fulfillment of the requirements for the degree of Master of Science

Johannesburg, 2008

DECLARATION

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

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24 day of March 2008

ABSTRACT

Recent efforts in science education have focused on making the curriculum more relevant. Many discourses maintain that relevance improves the teaching and learning of science.

This study attempted to identify a relationship between content that learners thought was relevant to them and how they actually performed in the examination. An evaluation was also done to determine whether there was a gender difference in choices regarding relevant content, and whether gender differences existed in the performances of learners in the year-end examination. The study involved forty-six learners from a low socio-economic school. Data from questionnaires and examination scripts were statistically analysed to determine if there was any correlation between relevance and performance.

Results showed firstly that the most relevant topics were equation of motion and inorganic chemistry, with vectors being least relevant; secondly that there was no correlation between what learners regarded as relevant and how they actually performed in relation to content they identified as relevant; thirdly that there was no gender difference in performance in physical science, with regard to the year-end examination and the trend of boys favoring physics and girls preferring chemistry identified in other research, was shown to be true for these learners as well.

DEDICATION

To my father - my inspiration, my conscience.

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LIST OF ACRONYMS

C2005……..……..……Curriculum 2005
NCS……....……National Curriculum Statement
OBE…….....……Outcomes Based Education
STS……..……...….Science-Technology Society
TIMSS……...……...…..Trends in Mathematics Science Studies