THE IN-SERVICE EDUCATION AND TRAINING (INSET) NEEDS OF EDUCATORS OF PRIMARY SCHOOL MATHEMATICS

BY

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DECLARATION

I hereby declare that this dissertation is my own work and that all the sources I have used or quoted have been indicated by means of complete references.

RANJINI NAIDOO

January 2003

DEDICATION

This dissertation is dedicated to:

My husband and daughter who have been a source of inspiration and encouragement to me.

All the senior primary mathematics educators who feel the need for professional growth in our rapidly changing world.

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ACRONYMS/ABBREVIATIONS USED IN THIS STUDY

AMESA - Association of Mathematics Education of South Africa
B.A. - Bachelor of Arts
B.Ed. - Bachelor of Education
B.Sc. - Bachelor of Science
CASME - Centre for the Advancement of Science and Mathematics Education
C2005 - Curriculum 2005
DET - Department of Education and Training
ERIC - Education Resources Information Centre
HOD - House of Delegates
HOR - House of Representatives
HSRC - Human Sciences Research Council
INSET - In-Service Education and Training
KZDEC - KwaZulu Department of Education and Culture
KZN - KwaZulu-Natal
KZNDEC - Department of Education and Culture: KZN
LACs - Learning Area Committees
LEAs - Local Education Authorities
M.Ed. - Master of Education
MCPT - Maths Centre for Primary Teachers
NED - Natal Education Department
NFER - National Foundation for Educational Research
NGOs - Non-Governmental Organisations
NQF - National Qualifications Framework
OBE - Outcomes Based Education
PGCE - Postgraduate Certificate of Education
PRESET - Pre-Service Education and Training
RADMASTE – Research and Development in Mathematics, Science and Technology
RDP - Reconstruction and Development Programme
SABINET - South African Bibliographic Information Network
SAQA - South African Qualifications Authority

TOPS - Teacher Opportunity Programmes
USSR - Union of Soviet Socialist Republics

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MAPS OF RESEARCH AREA

LIST OF KEY WORDS

Curriculum 2005

In-Service Education and Training (INSET)

KwaZulu-Natal (KZN)

Mathematics education

Mathematics educators

Mathematics teaching

Outcomes Based Education (OBE)

Pre-Service Education and Training (PRESET)

Primary schools

Senior primary phase

ABSTRACT

This investigation is primarily concerned with the In-Service Education and Training (INSET) needs of primary school mathematics educators. The research is grounded in the proposition that in order for senior primary mathematics educators to keep abreast with the current knowledge explosion and rapid rate of technological growth, they are under serious obligation to improve their expertise, knowledge and skills in mathematics teaching and learning through INSET. Pre-Service Education and Training (PRESET) serves only as preparation for entry into the teaching profession and cannot last the whole teaching career. INSET is thus necessary for the senior primary mathematics educator's continuing education.

In this investigation an attempt is made at establishing a framework for INSET and mathematics educators. It is hoped that these theoretical frameworks will enable mathematics educators to cope with the changing needs of senior primary mathematics education.

There is no doubt that the developments of senior primary mathematics education and INSET in the United Kingdom can have a profound effect on the senior primary mathematics education in South Africa. The extent to which the developments in the United Kingdom influences the educational initiatives presently being undertaken in South Africa will depend upon those who teach senior primary mathematics and those who are responsible for the provision of INSET of senior primary mathematics educators.

The past South African discriminatory policies led to numerous iniquities in the provision of mathematics materials and development of mathematical human resources. Consequently, there is a large number of unqualified and under-qualified mathematics educators especially amongst Blacks in South Africa. It is through INSET that this condition can be rectified.

A questionnaire survey revealed that senior primary mathematics educators are fully conscious of the importance and significance of

INSET. The recommendations made for the INSET of primary school mathematics educators based on the literature survey and the empirical investigation are: the need to establish a national and provincial policy for the INSET of primary school mathematics educators; there must be a concerted effort to establish school focused INSET; many of the methods of INSET courses emphasising the participative approach needs to be explored; the value of teachers' centres as exciting brokers for new ideas and as networks for personnel proves invaluable and finally, pivotal to the INSET of primary school mathematics educators is the need for them to update their in-depth knowledge of mathematics.

There is no doubt that the INSET of primary school mathematics educators is a crucial factor in KwaZulu-Natal (KZN). It is clear from this research that INSET for both academic and professional upgrading of the senior primary mathematics educators and the improvement of mathematics teaching and learning in the primary school is only limited by one's imagination.