

DECLARATION

I declare that, apart from the assistance acknowledged, this research is my own unaided work. It is being submitted in partial fulfillment of the requirements for the degree of Master of Science at the University of the Witwatersrand and has not been submitted for any other degree or examination at any other university.

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ABSTRACT

Following earlier worldwide trends in school science curricula, Lesotho revised its *Junior Secondary Science* curriculum as the new millennium started, moving towards a learner-centred approach, focusing more on activities, and including the development of appropriate science-related skills and attitudes. My observations as mentioned in chapter 1 section 1.4, page 15, were that implementation of the new curriculum was not going as expected.

There are three aspects to this study. Firstly, I had to establish what the requirements of the new curriculum are. A document analysis of the syllabus document was made, and interviews were conducted with four *National Curriculum Development Centre* staff who had been involved in developing the syllabus. The requirements deduced from the syllabus documents were that a learner-centred approach be used, there should be greater use of activities, and there should also be development of skills and development of appropriate attitudes. The results of the interviews however, indicated that although the curriculum developers developed the syllabus document, which implied four requirements, not all the curriculum developers seemed to clearly see them as requirements. If it is not clear that there are four important requirements, it is unlikely that the requirements will be effectively communicated to teachers.

The second step was to investigate teachers' awareness of the new requirements, and how they were implementing them in their classrooms. Questionnaires were completed by twenty-eight *Junior Secondary Science* teachers in one district in Lesotho, and four teachers were interviewed to probe for in-depth information. Eleven of the teachers who completed the questionnaire did not list even one of the requirements as changes they were expected to make. Thirteen teachers mentioned use of activities in learning; 6 stated that a learner-centred approach should be used; 6 mentioned that skills have to be taught; and only one teacher indicated that there should be development of appropriate attitudes. The results also showed that many teachers tend not to discriminate between "learner-centred" and "activity-based" approaches. Furthermore, only about half of the teachers seemed to understand the meaning of "activity-based" teaching and learning approaches. It also appears that few teachers really understand that skills and attitudes need to be actively taught, and few are actually **teaching** skills in their science classes.

Lastly, document analysis of the syllabus document (already discussed above), available textbooks from two publishers, and teacher's guides from one publisher was made to determine the extent to which they provide guidance to help the teachers to understand and make the required curriculum changes. The results of the study indicated: i) The syllabus document does not clearly state requirements as such: instead the requirements are deduced from statements scattered in the syllabus documents. The terms used, like learner-centredness, are not defined. ii) The two teacher's guides analysed give little guidance on the features of using a learner-centred approach, like accommodating the learning pace of learners and recognizing learner differences in learning abilities. Whilst one guide gives some guidance on how to teach the skill of report-

writing it gives no guidance on other skills, most importantly those skills mentioned in the syllabus document. Teacher's guides are the main place where we would expect to find guidance, but little guidance is given about how teachers should go about putting the new approaches to practice. iii) The four Form B and C textbooks from two publishers have very few activities which promote the four new approaches required by the new curriculum. The implication is that one of the factors which may be inhibiting change in teachers' practice is that the documents intended to support teachers are not fully serving this purpose.

DEDICATION

This work is dedicated to my daughter Lintle Lovedeliah Phakisi, my son Rammatli Isaiah Phakisi, my husband Phakisi Godfrey Phakisi and my late mother ‘Mampeoane Thuoela, and brother Mpela Samuel Thuoela and to my father Bereng Chafotsa Thuoela.

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