

**ADDRESS AT LAUNCH OF MATHS AND SCIENCE TEXTBOOK:
*UNDERSTANDING CONCEPTS IN MATHEMATICS AND SCIENCE***

7 March 2007

Ladies and gentlemen, colleagues from other universities and the Department of Education, educationists, colleagues from Rhodes University, representatives of the publishers, and esteemed guests

Good evening and welcome to Rhodes University!

It is a great pleasure to say a few words at this Eastern Cape launch of a new mathematics and science textbook, *Understanding Concepts in Mathematics and Science*, more so because of the intimate involvement by an esteemed member of the Rhodes University community, March Schafer in the production of the book.

I must confess that when my PA, Marion, came to speak to me about the invitation to address this event I did exclaim ‘what the heck do I know about maths and science and can say about maths and science.’ I got a decent enough pass in maths in matric but I did not enjoy it one single bit!

And there is yet an evangelical mathematician that can persuade me that maths is essential or indispensable for ‘critical reasoning’. Sure, maths is important for many reasons but that it is essential or indispensable for cultivating critical reasoning is, to me at least, a dubious claim. Any number of other disciplines – including philosophy, history, and sociology can equally educate in critical reasoning.

Marion helpfully suggested that I could say something about the beautiful cover. So not able to say anything intelligent about the content of the book let me indeed note a few things about the form of the book. And not being a media design specialist or graphic artist there are only a few things that I can say about the form of the book.

As you can see it does indeed have a beautiful cover. It is also well-produced and solidly stitched and will withstand the ravages of grubby paws for a long time.

So apart for recommending it for its attractive cover and its solid production what more can I say Marc, except to add that I also strongly commend it to all present because you are well aware how little academics earn and they need the royalties.

With those few words I congratulate all the authors for their book with a beautiful cover and solid production and duly declare the book launched in the Eastern Cape. I trust Marc that this was pretty much what you essentially were hoping for when you invited me as a non mathematician and non-scientist the kind of to deliver the keynote address. We can now get on with what we really came here for – to have a little bite, a few drinks and chat in pleasant company.

I jest!

More seriously, I indeed am not in a position to say anything intelligent about the content of *Understanding Concepts in Mathematics and Science*, described as a ‘multilingual learning and teaching resource book in English, isiXhosa, IsiZulu and Afrikaans’.

But there are a few comments that I wish to make about the form of the book, and to then link these comments on the form, and more specifically on the social determinants of form, to the question of language.

In linking form with its determinants, I want to use illustrations from the South African experience of the struggle for democracy.

1. First, form is shaped by **values**.

For example, notwithstanding the changing content of political and social struggles in South Africa over centuries, the form has by and large been non-racial. Julie Frederikse in her book, *Non-Racialism: the Unbroken Thread* may somewhat overstate the case in that at different moments the thread of non-racialism was quite fragile and thin, but she is right to argue that non-racialism has indeed been a relatively unbroken thread. Why it was the case has to do with values developed and inculcated by far-sighted and exceptional men and women leaders of progressive political and social movements.

2. Second, form is however, not only shaped by values but also by **context**. In as much political and social movements embraced the idea of non-racialism, in the late 1960s and early 1970s the Black Consciousness movement advocated black solidarity and restricted membership to black South African, notwithstanding a commitment to a non-racial democracy. In my view this form of struggle was entirely defensible for it was shaped by the particular context of the period.

3. Third, form is also shaped by **the mind** – by the memory of the mind or by the infinite creative imagination and innovation that the mind is capable of.

During the early twentieth century black educational resistance – strikes; later boycotts; somewhat later new forms and repertoires of resistance and taking control of schools

4. Fourth, and finally, form is also shaped by **human collective endeavour**.

The great literary theorist Raymond Williams has argued that visions and goals are not utopian by dint of what they seek to achieve but only when they are conceptualised outside of humans to help realize them. Take humans seriously and put human collective endeavour at the core, at the centre, and we may be surprised at what and how much we can achieve.

I want to now apply these determinants of form - **values, context, the mind, human collective endeavour** - to the production of this beautiful, exciting, imaginative and innovative book and also relate these determinants to the issue of language.

1. **Values**

Recognition of history and language

Magubane

Althusser and interpellation

Constitutional and moral imperatives

Symbolic and token

2. **Context**

Learning and teaching

3. **The mind**

4. **Human collective endeavour**

Regrettably the arts, humanities and natural sciences come together all too rarely. *Book* is a good testimony to the rewards of collective creative endeavour

across disciplines and fields. I hope that it will encourage further and greater endeavours along these lines.

Content

Power

Transformation

Concepts not just language but also discourses and theory

Congratulations on wonderful achievement