

The 5th Interdisciplinary Post Graduate Conference 2013
A Dialogue for the Next Generation of Researchers

23 September 2013

Molweni, goeie nag, good evening and to the postgraduates from sister universities welcome to Rhodes University for the 2013 edition of the Interdisciplinary Post Graduate Conference.

The conference offers you a wonderful opportunity to present your research work, to meet with and interact with other postgraduate researchers across disciplines, fields and institutions, to support each other, to hone your conference presentation skills. More generally it is a contribution to fostering research and research development in South Africa. I am pleased at the wonderful attendance and that over the next two days there will be over 40 presentations.

Postgraduate studies represent a new phase of professional and intellectual development, which involves grappling with higher levels of knowledge, greater challenges to your intellectual and organisational abilities, and requires a greater autonomy of learning and discovery. I trust that you are finding your postgraduate programme intellectually challenging, stimulating and rewarding.

As postgraduates, you play important roles at universities and potentially contribute in at least 5 ways.

1. First, you serve as tutors and support academic programmes and enhance undergraduate student development. Of course, this is also a valuable mechanism for you to advance your own intellectual and academic development.
2. Second, you serve as role models for undergraduates, and hopefully inspire them to consider postgraduate study.
3. Third, you are potential catalysts of the production of new knowledge, either through inspiring and innovating new and fresh approaches to developing knowledge or pushing knowledge production into new areas
4. Fourth, you provide valuable support to leading scholars and researchers, assist them in their research in various ways and also grow to become their collaborators
5. Fifth, you are potential apprentice academics and the new generation of lecturers and researchers.

Today science and knowledge are critical in economic and social development and ensuring that we are competitive in the global economy. Economic development is 'increasingly dependent on knowledge and information applied to production, and this knowledge is increasingly science-based' (Carnoy cited in Badat, 1998: 2).

Manuel Castells argues that 'if knowledge is the electricity of the new informational international economy, then institutions of higher education are the power sources on which a new development process must rely' (ibid). This means that the production, development and application of knowledge takes on a new significance, and universities become hugely important.

We have to produce new knowledge and help innovate new products, processes and technologies; this means that you as postgraduates must develop the capacity to produce new knowledge, innovate and run complex modern economies.

As a country, we have strengths in science and knowledge production; witness the winning of the right to build the Square Kilometre Array telescope. But we also have shortcomings and constraints.

- For one, only 34% of academics have doctoral degrees, which is generally a prerequisite for high quality research and development activities.
- For another, 10 of our universities produce 86% of all research and 89% of all Doctoral graduates (Mouton, 2010).
- Postgraduate student enrolments and outputs are low and sorely inadequate in relation to South Africa's economic and social development needs.
- Currently, we graduate less than 1 500 Doctoral and only some 8 600 Master's graduates (CHE, 2012:21). One university in Brazil, the University of Sao Paulo, produces 2 244 Doctoral graduates, which is more than all the universities in South Africa combined.
- While we produce 28 Doctoral graduates per million of the population Korea produces 187 per million of population and Brazil 48 per million of population.
- We also lag seriously behind other countries with only 1.5 FTE researchers per 1000 employed (CHET, 2012).

There is also a lack of the dense networks between universities, public enterprises, state departments and businesses that you find in other countries, which facilitates movement of people, knowledge, expertise and experience between universities and the public and private sectors and innovation.

Two recent documents, the Department of Higher Education and Training's 2012 *Green Paper for Post-School Education and Training* and the National Planning Commission's *National Development Plan 2030* discuss some of the challenges at the postgraduate level.

The *Green Paper* states that the number of overall postgraduate qualifications obtained, particularly PhD graduates, is too low" (DHET, 2012: 11). It notes that "the provision of overall postgraduate provision deserves attention and that we need to drastically increase the number and quality of both the masters and the PhD degrees obtained" (DHET, 2012: 42). It sensibly recognizes that 'improvement of undergraduate throughput rates must be a key strategy for increasing graduate outputs, for increasing the skills available to the economy, and providing larger numbers of students available for postgraduate study" (ibid., 42). The *Green Paper* also acknowledges that one "significant constraint on the ability of many students to obtain masters and PhDs" is poverty, "as poor students are under enormous pressure to leave university and get a job as soon as possible" (DHET, 2012: 13).

The National Planning Commission proposes that "by 2030 over 25 percent of university enrolments (projected at 1 500 000 – so 375 000) should be at postgraduate level" (15.5% in 2010 or less than 150 000) and emphasizes "the number of science, technology, engineering and mathematics graduates should increase significantly" (NDP, 2011: 319).

Specifically, by 2030 there should be “more than 5 000 doctoral graduates per year against the figure of 1 420 in 2010” and again “most of these doctorates should be in science, engineering, technology and mathematics” (ibid., 2011: 319).

By and large there can be little quibble with the overall visions, intentions and approaches of the Green Paper and NPC. They provide good description and analysis of the problems and shortcomings that plague higher education. They recognize the need to hold firmly together the goals of ‘access and equity’ *and* ‘high-level excellence’, the importance of undergraduate *and* postgraduate study, and teaching-learning *and* research and innovation. To their credit, both the Green Paper and the NPC are not shy to stress the needs of the “working class and poor” and rural students.

A major constraint on postgraduate education, however, is that the funding for postgraduate study (especially full-time study) through the National Research Foundation, and the size of the awards provided is severely inadequate. If South Africa is to accelerate economic and social development as well as ensure greater opportunities for and participation by students from indigent backgrounds in postgraduate study, significantly more investment is needed in postgraduate and especially doctoral level study. At many South African universities the availability and quality of research infrastructure, facilities, and equipment is also a constraint on the enrolment and production of doctoral graduates. This is so even at the 12 of the 23 universities that produce 95% of doctoral graduates and the bulk of peer-reviewed scientific publications.

The challenge of the enhancement of institutional capacities is, however, not confined to nor should be reduced to infrastructure, facilities, and equipment. It also relates to the capacities to expand and mount new doctoral programmes, the management of doctoral education, the management of research and the mobilisation of funding for doctoral studies and students. Thus, the NPC calls for improving both “the quality of teaching and learning” and “the qualifications of higher education academic staff” – from “the current 34 percent” with doctorates “to over 75 percent by 2030” (NDP, 2011: 319). In all these regards, there is great scope for inter-university collaboration, though the nature, terms and conditions of such collaboration is important issues.

In so far as improving the proportion of academics with doctoral qualifications is concerned this will require a dedicated programme, supported by funding. However, it cannot be assumed that academics with doctorates will be accomplished supervisors of doctoral students. Attention has to be given to equipping academics to supervise effectively – possibly through formal development programmes, mentoring and experience in co-supervising alongside experienced supervisors. More effective supervision could also contribute to improving graduation rates.

In the light of some of these challenges, a key feature of the growth of Rhodes in the next decade will be the ongoing enhancement of research and expansion of postgraduates - both in absolute terms and hopefully also as a proportion of the total student body. This year, we are almost 2 300 postgraduate students or 30% of the student body. By 2019, we hope to have about 2 800 postgraduates and be some 32% postgraduate.

Of course, declaring an intention does not mean it will be achieved - we have to develop effective strategies to pursue our goal, create new areas of postgraduate studies, ensure that we develop new infrastructure in the form of buildings, laboratories, library holdings and the like, and mobilise additional funds for scholarships and bursaries.

And we will do systematically. Last month the University Senate approved a major document that sets out our aspirations for postgraduate education and research. The overall goal is to contribute to the economic, social, cultural and intellectual life and well-being of South Africa and the African continent by *enhancing the quantity, the quality and the equity profile of postgraduates at Rhodes, and especially South African postgraduates*. We state that the quantitative growth, qualitative enhancement and the transformation of the social composition of postgraduates needs to be pursued *simultaneously* (not consecutively). The document hopes to usher in the further and dynamic development of postgraduate studies at Rhodes through the necessary new policies, interventions, practices, structures and mechanisms.

Issues addressed in the document include:

1. Postgraduate Enrolment and Trajectory at Rhodes
2. Academic Organisation of Postgraduate Studies: Responsibility at Departmental, Faculty and Institutional Level
3. The Character of Postgraduate Education
4. The Administration and Visibility of Postgraduate Studies
5. The Recruitment and Attraction of Postgraduates to Rhodes
6. Postgraduate Academic Programmes
7. Supervision and the Development of Supervisory Capabilities and Capacities
8. Norms Related to Students per Supervisor at Different Levels of Postgraduate Studies
9. A Compact Between the University and Students Regarding Support and Supervision
10. The Provision of Facilities and Equipment to Students
11. Scholarships, Bursaries, Loans and Other Financial Support for Postgraduate Students
12. Other Support for Postgraduate Students
13. Postgraduate Student Accommodation
14. Postgraduate Representation and Participation in University Governance
15. Finances

One of the goals that I am excited about and will be working hard to realize is creating a new Chair of Postgraduate Studies. The Chair in Postgraduate Studies will

- Conceptualise, design, organize and implement postgraduate orientation programmes, and common courses and seminar series on cross-cutting epistemological, theoretical, methodological and other relevant themes and issues. It is important that postgraduates from different faculties and disciplines and fields individually and jointly
 - ✓ Grapple with critical epistemological and ontological issues
 - ✓ Engage with key issues in the philosophy of science, the history of science and the sociology of knowledge, and related to ethics
 - ✓ Consider and debate issues related to knowledge, theory and methodology, and
 - ✓ Be exposed to matters related to conducting literature reviews, writing proposals and scientific publishing.

The Chair in Postgraduate Studies will also

- Serve as the institutional champion of high quality postgraduate studies and postgraduate students
- Head a Postgraduate Centre that serves as the supra-faculty and department academic hub and administrative hub (recruitment, registration, scholarships and financial aid) for Rhodes postgraduate students.

In closing, I wish you a stimulating and productive conference and am happy to engage with you on any aspect of my brief comments.