

A strategic plan for the Science faculty

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Preamble

The leadership structure at Rhodes University has changed considerably. Within the period of a year we now have a new Vice Chancellor, new Deans of Law and Humanities, and new Deputy Deans for most faculties. By 2015 we'll have a new Deputy Vice Chancellor and a new Dean of Science. This change is simultaneously daunting, unsettling and exciting.

The protocol for selecting a new Dean includes the requirement that each nominee furnishes the faculty with a written document detailing his/her vision for the faculty. Rhodes University is one of a few South African universities that have faculty-elected Deans. At Rhodes University the position is full-time and non-executive. The faculty therefore operates democratically and such that there is autonomy and self-governance that are central elements of academic freedom. To be quite honest, I therefore don't believe that a Dean should set the vision (or even the goals) for the Faculty. I envisage the Dean as an impartial guide who fosters the development of a collective vision for the faculty together with the faculty. The Dean should be able to contribute a higher-level perspective be able to ensure that the vision is aligned with broader national and institutional needs. The Dean is therefore facilitative and should allow all voices in the faculty to be heard. Achieving the agreed upon vision will however require developing strategies that are implementable. Without implementable strategies, visions are quite useless. Therefore, the Dean is required to wear two hats – the first hat that was facilitative and promoted consensus building, now needs to be replaced with an implementation hat. The Dean must use all resources available to him/her to ensure that the vision is realized. Most importantly, the Dean must be able to get things done.

In the absence of a faculty vision I will refer to Rhodes University's vision. In the calendar it states that:

Rhodes University's vision is to be an outstanding internationally-respected academic institution which proudly affirms its African identity and which is committed to democratic ideals, academic freedom, rigorous scholarship, sound moral values and social responsibility.

For the faculty to attain this vision (and I think we mostly have or are almost there) I present the faculty with a several important issues (or, a strategic plan) that will 1) assist us with balancing the faculty with respect to its research, teaching and learning, and community engagement commitments, 2) assist in transformation and the career development of academic staff, and lastly, 3) looking at a slightly modified yet more inclusive faculty structure. This plan was developed in both the contexts of the university's *Grand Challenges*¹ and the difficult economic climate that we will be enduring for the next five years. This plan must be seen in the context of being a working document and simply a point of departure for later inclusive and faculty-wide ruminations. We are a small, happy and collegial faculty that punches above its weight. I believe that with some effort we can do even better.

¹ The *Grand Challenges* include equity and current social profile of academics, institutional culture, institutional transformation and modernisation, financial aid for students, remuneration of academic and support staff, and overall financial sustainability.

Creating a balanced faculty

Rhodes University prides itself as having some of the best publication rates per academic and the best undergraduate throughput rates in the country. We are also proud that we are ranked together with the research-intensive universities that include UCT, WITS, Stellenbosch and UP. But at closer inspection we are not a really a “research university” and we are not really a “teaching university”. We are both. And we are also good at both.

At Rhodes University the academic project is supported by three pillars – Research, Teaching and Learning, and Community Engagement. The university’s vision indirectly mentions these pillars but I believe more needs to be done to try and balance them better. Each pillar must be considered to be equally important such that research, for example, is not considered to be superior to teaching and learning. When properly balanced, these three pillars will not only support the academic project evenly but each pillar will also begin to organically integrate with others. Examples include including one’s own research into the classroom, using the classroom to generate research questions, and broadening the classroom to take research finding, and other knowledge generated, to the local community. Rhodes University is known to be good at research and excellent teaching, but can that be said about its engagement with its community?

Research

From a research perspective the Science Faculty is functioning well as we have doubled the numbers of postgraduates and research articles over the past decade. The faculty now boasts seven Research Chairs that will improve on its overall productivity. The Science Faculty is an important spoke in the university’s revenue wheel as it produces 51% of all research outputs with only 28% of the university’s academic posts. Rhodes also publishes 88% (this highest in RSA) of its articles in international journals – an index using by the DoHE to gauge research quality.

While there is approximately 30% of our faculty that produce more than double the benchmark of 1.4 units.year⁻¹, almost half of the faculty produces less. Research is also becoming more difficult to conduct as funding is becoming harder to source. There is also a problem that 14 members of the faculty do not have a PhD. Because an academic can only supervise students to at least the level of the qualification they have, these academics cannot grow their research careers (and get promoted) as they are unable to supervise PhD students. This is currently being addressed and within a few years these number will have halved.

My plan for research within the faculty is to concentrate on the younger, less established, faculty members. For the established researchers, particularly the excellent and highly productive researchers, I will be playing a support role. To assist new young researchers I wish to initiate a twinning and mentorship programme that links the younger academics with dynamic, established and productive researchers. In addition, there are also approximately 10 young, mid-level academics who I think, with additional research support (an extra MSc or PhD bursary or double the RC grant), can at least double their research output and move into the highly productive bracket of over 3 units.year⁻¹. These academics have shown excellent research potential and should therefore be supported better. While Rhodes University will clearly benefit from the subsidy units, it will also assist these academics in their prospect for promotion.

The faculty is also moving towards interdepartmental collaborative research and inter/transdisciplinary initiatives. These ventures are exciting and timeous. While some are new to the venture, I think of my own department, and are grappling with how to work with the different ways to access and analyse knowledge, other departments and institutes such as Environmental Science, Geography and IWR have considerable experience in the area. I look forward to learning from them.

I also want to initiate some medium- to longer-term research planning for the faculty. Research within the faculty has never been prescriptive and has allowed academics to follow fundamental or applied research interests either alone or in collaboration with others. Almost all research, however, requires funding and conventional sources (such as the NRF) are becoming harder to source. The Research Committee, in collaboration with the Research Office, will develop a longer-term research strategy for the faculty that will allow us to proactively (and not reactively) respond to changes in funding, possibly align ourselves with larger national and internal initiatives and calls for proposals, and allow younger academics to join larger and more established research programmes to kick-start their research careers.

As a faculty we are already productive and we don't need to fix things that are not broken. My plan is therefore to build on the base of our excellent Research Chairs and established research groups and to further develop our younger talent. Then, with the possibility of sourcing non-standard and unconventional funding and by possibly conducting research on fundable themes then we will most probably better our existing track record.

Teaching

Rhodes University has an excellent reputation for its high quality teaching. Classes are smaller than many other universities and our staff : student ratios are generally favourable. As many of the excellent teachers are also excellent researchers, the material taught in class is current, inquiry-led and evidence-based. While our throughput rates are the best in the country they are, quite honestly, poor. This is further compounded with the fact that academic success is racially skewed with almost three times more black students being academically excluded.

Rhodes will be growing at a rate of approximately 2% (compounded) per annum, lecture venues will remain the same in size and number and so will the complement of staff; simply because of tight economic conditions. In addition, we'll probably have to introduce a flexible Science curriculum that is also referred to as the "4 year BSc". How will we cope to not only maintain but better our standards such that our first year pass rates improve and that our student's academic potential is realised?

My plan for teaching and learning is to concentrate on the first academic year. Statistics reveal that this is a real hurdle for most students because once they have passed all their first year courses they tend to proceed well and graduate. The reality is that many of our first year students are poorly prepared for university life on both academic and social as well as emotional levels. I therefore propose that we strengthen our Academic Development and mentoring for first year students particularly for our service courses such as Chemistry, Cell Biology, Earth Science and Mathematics. I also propose that we don't wait until the following January or February for supplementary examinations. Rather schedule them immediately after the June and November examinations. The subject matter can be revised quickly as it is still relatively fresh in the student's minds, and the expense of returning to residence or having to travel can be minimised.

Community engagement

Community Engagement (CE) is the university's (unappreciated and often maligned) third pillar and should be interlinked with our teaching and research functions. Basically, CE deals with civic responsibility and citizenship and it is a direct way for Rhodes University to give back to its community. CE breaks down the notions of the "ivory tower" and the "bastion of privilege" and make the university accessible to the community, co-owned by the community and appreciated by the community – a functional "town and gown" relationship. Academic staff and students are also enriched by CE.

A recent survey conducted by Joyce Sewry, Deputy Dean of Science, revealed that there are quite a few smallish CE projects spread across several departments. These projects are unfortunately flying under the radar and needs better support in terms of time, effort and finances.

An additional exciting development is that our new Vice Chancellor has pledged to take Rhodes University to, and work with, Grahamstown East. Apart from the obvious benefits this will have to the community, I believe that the university will also significantly benefit from this because of the larger pool of potential first year students. Rhodes University can still grow in size without having to build additional residences as the students will be proudly local.

My plan for CE is to build on the excellent progress made to date by the Deputy Dean and to expand our footprint into Grahamstown East. CE is also grossly underfunded and I think the Dean should be responsible in fundraising such that there is financial support for worthwhile projects. Lastly, by pooling our inter-departmental time and effort into fewer larger projects we can start building CE initiatives that are sustainable.

Transformation and staff development

The academic project is conducted by people. People are therefore a university's biggest asset. If academics are content, happy and motivated so are their colleagues and so are their students. The academic project thrives on diversity. Academics in the faculty are generally happy; with the result that turnover is low. In fact, we only have a few retirements in the next five years which when, coupled with a diminishing new staffing budget, means that growth in staff must come from non-conventional places. This is bad news as we really need to improve on the Faculty's equity profile.

The university is growing and will need to keep pace with new appointments. Exciting new initiatives have opened up including the DoHE's *nGAP* (New Generation of Academic Practitioners) and the NRF's emerging academic programme. These initiatives can be useful in addressing retirements, growth and equity concerns. These development posts are designed to start with reduced lecturing loads such that the new academic has some time for his/her research. This model will attempt to wean academics into the academy while simultaneously facilitating the development of a research career. Teaching loads will then increase over three years until a full load is achieved and the academic also has a research profile. *nGAP* is quite exciting as funding is available for six years. The first four years cover the full costs associated with the candidates obtaining their PhDs (three years) and the first lecturing year with a reduced teaching load. The costs are covered by 75% in the fifth and 50% in the sixth years as the academic becomes properly integrated. The seventh and subsequent years are covered entirely by the university.

The faculty also has young academics. In fact, there are quite a few as 36% of the faculty is under 40 years of age and fill 61% of the academic levels under Associate Professor. In addition, there are only four Associate Professors in this cohort. Capacity building and academic staff development has always been close to my heart and I wish to assist these young academics fulfil their potential. While we used to have a strategy of "growing our own timber" I wish to develop this into "nurturing our own timber".

As I noted in my motivation for Deputy Dean, a PhD degree is, for the most part, considered the minimum requirement for an academic post within the faculty. Those academics without the degree (14) are hamstrung in their career development as promotion within the academy typically includes a research track record, a recognised standing as a researcher, and a track record of postgraduate (including PhD student) supervision. Promotion prospects without the degree are therefore difficult, if not impossible. On an individual-specific basis, I wish to try to get all of our non-PhD colleagues to register for a PhD within my five-year tenure. This will obviously have staffing and sabbatical implications, but I do not feel that these are not insurmountable. I also wish to see these academics

study outside of Rhodes University (ideally outside of South Africa). My motivation is two-fold: first, an academy is strong because of its diversity in thought and training and registering at Rhodes University will only encourage homogeneity, and second, registering locally will not allow the academic to focus on completing their degree quickly because of home-department pressures. Spending blocks of time away from their home department, with clearly defined goals and targets to be completed, will expedite the process. I will therefore personally engage with funders to make it a reality.

A more effective and lateral Faculty structure

The current faculty structure is quite hierarchical with the Dean and Deputies at the top of the pyramid supported by the Heads of 14 departments. There is one dedicated committee, the Research Committee, and also a Teaching & Learning Roundtable. In addition, the Faculty only meets four times a year. As Rhodes University doesn't have executive Deans, the faculty-elected Dean model should, in my opinion, have a more inclusive democratic structure with a less centralised leadership structure. This issue has partially been resolved with the new system of Deputy Deans; each responsible for a specific portfolio. We can learn from, and build upon, this model.

I believe that strategy could be better developed and more effectively implemented by upsizing the Roundtable to a full committee and creating a committee for Community Engagement. All committees should have departmental representatives who could play an active role in developing faculty-specific strategies that can then, via the Dean and/or Deputy Deans, constitute the faculty-mandated position at Senate's Subcommittees. Please note that all faculties have standing items at each board on Research, Teaching & Learning, Community Engagement, and Equity & Transformation. We should engage better with these items, minute them properly, and present the committees' decisions at each Faculty Board meeting. These committee reports will also provide a springboard for more engaged discussion around the broader academic project.

Lastly, the most important leaders in the Faculty are the Heads of Department. They are the eyes and ears of the faculty and have their fingers on the daily pulse of the academic project. They are unfortunately now being swamped by more and more administrative work, emanating from an increasingly bureaucratic centralised management. This situation has to stop. I believe that good management is usually simple management. By simply going through the various forms and processes, critically assessing each one and simplifying/removing them, we'll have happier HoDs who can spend their time on non-administrative tasks that directly contribute to the academic project. The freeing up of precious time can allow for the Dean and the two Deputies to resume regular meetings with the HoDs. Instead of discussing the flood of administrative clutter, the discourse can be channelled towards more meaningful academic-related topics.