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6 GRADUATE SCHOOL FORMATS AND FUNCTIONS

A CASE STUDY

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INTRODUCTION

This chapter explores the reasons for the success, in the area of doctoral studies, of the recently established Graduate School in the Faculty of Arts and Social Sciences (FASS) at Stellenbosch University (SUN), South Africa.

First we provide a brief history of the establishment of the FASS Graduate School which includes a description of the institutional developments leading to the release of funding for this HOPE project initiative. (We use the term 'graduate school' in referring exclusively to doctoral programmes.) We also look at recent national policy developments that catapulted doctoral education to the position of a strategic enabler in the South African science and research system, as well as some of the recommendations for increasing doctoral production in South Africa.

The greater part of the chapter is devoted to a description of the structure and functions of the Graduate School. The discussion explores the meaning of full-time study as a key component of successful PhD programmes. Next, the recently developed notion of graduate enrolment management (GEM) is introduced as a heuristic device to describe the operations of the Graduate School. The provision of continuous programmatic support is unpacked as a specific form of support of which the content as well as the timing is determined by the stage of study. In the last section, the outcomes of the FASS Graduate School are presented and evaluated, concluding with a summary of the reasons for the success of the Graduate School and an attempt to articulate some general lessons that could be learnt from this enterprise.

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Our objective is to analyse how the particular structural configuration of an organisation[1] affects its functions and outcomes. Following Giddens (1979: 49-95), we view 'structure' as both constraining and enabling, and we intend to demonstrate that in setting up the Graduate School, we were able to configure 'rules and resources' (Giddens's concept of 'structure') in a way that optimised attainment of the goals of the operation. The underlying logic is therefore that graduate school outcomes can be expressed as a function of its structural arrangements. This perspective is largely neglected in current debates where the successes and failures of doctoral education tend to foreground the individual characteristics of the student, the supervisor and their support needs over the structural arrangements and mobilisation of organisational resources involved.

EARLY YEARS AND TEETHING PROBLEMS

During the academic year 2008, the SUN management launched the HOPE project (SUN 2011). Two policy initiatives provided the stimuli for this initiative, namely SUN's internal response to the government's insistence on broadening access to, and increased transformation of, public higher education in South Africa (see RSA DoE 1997; RSA MoE 2005a, 2005b), and the increased public policy emphasis on high-level skills development, including PhDs, as a prime driver of economic development.

The university, eager to shake off its association with the former apartheid regime, resolved to become more accessible and to be of service to society with specific reference to its location in Africa. To accomplish this, the university drew on its reserves to release a significant injection of seed funding for projects that would essentially be "the practical realisation of the University's moral decision to break with the past and help build a better future" (Botman 2010:2)[2]. Of the proposals

1 By organisation we mean a social unit devoted primarily to attainment of specific goals. In this we follow Etzioni (1961:xi) who linked his approach to the structural-functionalist paradigm of Parsons (1961) and the scope and method of his comparative analysis to 'middle range' theories proposed by Merton (1957). While we are fully aware of the problems in these earlier approaches to social theorising, some basic ideas and applications are still valid and have evidently withstood various waves of critical analysis. For a historical tour of such criticisms, see Craib (1992).

2 In his inaugural speech as rector of the University on 11 April 2007, Botman based his *leitmotiv* of hope on Paulo Freire's *Pedagogy of the Oppressed*, enabling him to view hope as the radical transformation of *inter alia* the consciousness of the oppressed. Though his speech did not intentionally refer to "decolonisation" – recently re-introduced in public debate by student movements – it can be safely assumed that he would have had little difficulty embracing its transformative aspects through a Freirian lens. For an appraisal, see for example Dirkie Smit and Mary Anne Plaatjies van Huffel (2015).

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received, 22 initial awards were made, inaugurating the HOPE Project. One of these awards was to the FASS for its proposal to establish a graduate school for full-time doctoral study in the arts, humanities and social sciences, linked to a collaborative network of similar faculties at African universities outside South Africa.

This network, PANGeA (Partnership for Africa's Next Generation of Academics and Professionals), consisted of the deans of humanities and social sciences in selected universities in Africa including Botswana, Dar es Salaam, Makerere, Malawi, Nairobi and Stellenbosch (Ghana-Legon and Yaoundé 1 joined later).

Thus the HOPE project award provided the seed funding for the realisation of the idea. In the course of the next year (2009), steps were taken to plan and implement what then became the flagship project of the FASS[3]. These steps included the first call for applications for full-time doctoral scholarships which went out to all partners in the PANGeA network in September 2009. The FASS Graduate School was established, as a centre in the FASS reporting to the dean, effectively 1 January 2010 – the year in which the first cohort of 30 full-time doctoral scholarship students were enrolled in the FASS Graduate School.

The PhD as key enabler

Doctoral studies have been catapulted to a prominent position on the South African development agenda, where the PhD is seen as a key driver of the knowledge economy. An early appearance in this guise is in the Department of Science and Technology's *Ten Year Innovation Plan* (DST 2007), which boldly postulated that the total number of 561 science, engineering and technology PhDs produced in 2005 in South Africa should grow to 3 000 (or to 6 000 for all disciplines) in 2018. This publication was soon followed by the South African National Research Foundation's *Vision 2015* (NRF 2008) which continued the theme of PhD as key driver but somewhat more modestly projected a total production of 3 000 by 2015, with the 6 000 mark to be reached only in 2025. In 2010, the Academy of Science in South Africa (ASSAf) produced a consensus report on the PhD, expecting the production of PhDs to grow from the then 26 per million of the population to 100 by 2025 (that is, around 5 000 per annum). By the time South Africa's National Development Plan was published (NPC 2012), it proposed a target of 6 000 PhDs per annum by 2030.

These targets ensued in the context of arguments about the development of a knowledge economy in South Africa which would be driven by research and

3 We owe a substantial debt of gratitude to the then dean of FASS, Professor Hennie Kotzé, for his continuous and unstinting support in the implementation of the faculty's flagship project.

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innovation, requiring a skilled workforce capable of performing cutting-edge research and innovation – to be achieved in part through the production of PhDs.

Exactly why doctoral education took centre stage is difficult to say. Perhaps because PhDs are highly visible and easily measurable and – provided sufficient quality controls are in place – the doctorate is arguably the paragon of achievement in research-driven university systems. Perhaps the state's new funding system for public universities, which came into effect in 2004, deserves some credit because it set out to incentivise the production of doctorates in the allocation of government subsidies payable from 2005 onwards. This seemed to concentrate the mind and spawned, among other things, a veritable industry of supervisor training events as academics and institutions tried to cash in on this funding scheme, no doubt pursuing the loftier academic goals of human capital formation for the knowledge society.

Among the four official reports mentioned above, only the NRF (2008) and ASSAf (2010) provided suggestions on how to achieve the ambitious PhD production targets, illustrated in Table 6.1.

TABLE 6.1 Recommendations for increasing the number of doctorates

National Research Foundation (NRF 2008:18)	Academy of Science in South Africa (ASSAf 2010:107–113)
"Three main avenues are being pursued to increase the annual production of PhDs from 1,200 (approximate 2005 numbers), to 6,000 PhDs by 2025: 1. *Full-time* studies at South African higher education institutions under the supervision of locally based research leaders. 2. *Full-time* studies at international universities. 3. *Full-time* studies through sandwich programmes in which doctoral students are registered at South African universities but also spend up to a year of their research training period at an international research or higher education institution." (Emphasis added)	(Abbreviated) 1. External interventions 2. Move towards *full-time* funding 3. National planning 4. Pipeline matters (schools, mathematics, careers, targeted incentives, innovation) 5. Eliminate bureaucratic barriers 6. Quality assurance 7. Public support 8. Upscale existing capacity 9. Reward programme diversity 10. Coupling with industry (Emphasis added)

We restrict our comments here to the following: First, the NRF's recommendations refer to actions that the NRF itself intended to take in its role as a research funding agency, although the actual PhD production would have to take place elsewhere. To its credit, it went directly to the heart of the matter, namely by recognising that any real improvement would require full-time studies in tandem with aspects of doctoral programme design. In contrast, the ASSAf recommendations are mostly about policy matters – which is its remit – and about actions that would have to be taken over

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a much wider front by a diverse set of actors. Only one of its recommendations referred to full-time study, and its importance was lost in the pursuit of so many broader policy matters. In hindsight, neither of these sets of recommendations had any significant effect, in the case of the NRF because it ostensibly did not have the funding to support full-time study over a wide front, and in the case of ASSAf because it bears no responsibility for implementation and because it moved on to other matters.

The FASS Graduate School

The FASS flagship project's main goal was to promote Africa's next generation of academics and professionals to be realised by building world-class doctoral programmes on, and about, the African continent, in collaboration and partnership with African institutions, focusing on the arts, humanities and social sciences. The assumption behind this strategy was that the interchange of human capital between the global North and South would become more equitable when African institutions are recognised – in Africa and abroad – as sustainable sites of research and higher learning. And so from strategy to structure. To achieve this overall objective – doctoral programmes – the following structural elements were joined together:

- The FASS Graduate School – as a centre coordinating partly structured, full-time three-year doctoral scholarship programmes; creating an interactive learning environment for advanced scholarship development; focusing on faculty-wide research themes addressing Africa's development; and partnering with leading African universities through PANGeA. (The description 'partly structured' was chosen deliberately because the option of structured PhD modules which are credit-bearing and which can be recognised on a PhD student's official study transcript is not yet available in South Africa.)
- PANGeA – a network of African universities working together to become the lead institutions in the execution of the strategy. Among other things, the members of the network develop research capacity on site, participate in exchange schemes and in joint projects and graduate student supervision.

The meaning of full-time study

From the outset the FASS Graduate School's focus was on full-time doctoral study programmes. The first requirement for the attainment of this aim is a substantial scholarship amount that is sufficient to cover the student's basic living costs and tuition fees. In 2010, the FASS Graduate School full-time PhD scholarship amounted to R120 000 per year payable for three consecutive years, plus a laptop in the first year. This amount was among the highest in the country at the time and attracted

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students who were willing to give up teaching jobs in which they earned less after tax. In terms of opportunity costs, many of the international scholarship students nominated by PANGeA partner institutions received additional support from their institutions, providing them with paid (or in a few cases unpaid) leave and thus allowing them to retain their positions of employment.

The second requirement is to insist that full-time study really means full-time, that is, no paid work. Many academics and administrators objected to this strict interpretation. Even the NRF allows full-time scholarship students up to 15 hours' assistantship work per week. The FASS Graduate School's reasoning was that 15 hours in a 40-hour work week represents 37.5% of the time, which is more than a third – therefore taking up more than a year out of a three-year programme, let alone the propensity of part-time academic work to almost always exceed the time actually paid for, especially in the case of first-timers. Fortunately the FASS Graduate School had the support of the faculty management in enforcing the no-paid work rule strictly, with exceptions only where the scholarship student is clearly so far ahead of schedule that additional work, capped at 10% of the student's time, poses no threat to on-time completion of the doctorate.

The third requirement is to insist that full-time study means being physically present on campus, except – with the permission and endorsement of the supervisor – for approved fieldwork, reasonable leave periods, ill health, and so on. Again, many academics and administrators found this stipulation restrictive. As with the no-work rule, the FASS Graduate School had to use every means of persuasion to convince them that the building and maintenance of an interactive learning environment – one of the cornerstones of a full-time doctoral study programme – requires attendance, in person, of regular learning events such as weekly or monthly progress reporting sessions, as well as seminars and workshops involving supervisors and co-supervisors, staff, visiting scholars, postdoctoral, doctoral and master's students.

Graduate enrolment management (GEM)

The fourth requirement of successful full-time study is the provision of continuous, programmatic support mechanisms. In the case of the FASS Graduate School, this amounts to a comprehensive system of GEM which, we would argue, subsumes and supersedes the ideas of the cohort model of doctoral study. The Association of Graduate Enrollment Management Professionals defines GEM as "a systematic approach to managing the graduate student lifecycle from initial awareness to alumna/alumnus by integrating the core functions associated with the enrolment and support of a graduate student" (NAGAP 2014). The core functions of GEM

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are depicted in Figure 6.1, followed by a discussion of how the GEM sequence is implemented in the FASS Graduate School.

FIGURE 6.1 Core functions of GEM (Source: NAGAP 2014)

Currently, the annual advertising of FASS full-time doctoral scholarships is preceded by two important sets of activity in the Graduate School. The first is to ensure, through continuous fund-raising efforts, that sufficient funding – mostly from external sources – is available for full-time scholarships. The second is to ensure that suitably qualified supervisors are available. Departments and prospective supervisors are requested to indicate the field or topics on which they are competent and willing to supervise at the doctoral level, and to indicate that they in fact have 'vacancies' to take on new doctoral students to conduct studies on the said topics. Such topics and doctoral opportunities are advertised on the Graduate School website. In the first round, FASS advertised in the traditional manner, inviting doctoral applicants to suggest their topics for study. This proved problematic because many students were not sufficiently informed to formulate meaningful proposals and wasted a lot of scholarship time trying to improve a badly conceived topic or casting around for an alternative topic to study. Therefore the FASS Graduate School now advertises full-time doctoral scholarship opportunities within established research programmes led by supervisors who are not only able to supervise, but able to take on full-time doctoral students.

In the FASS Graduate School, recruitment and marketing involve, among other things, visits to PANGeA partner campuses and the South African embassies in those countries to alert them to upcoming applications for study permits, as well as counselling of prospective students on all aspects of the full-time doctoral study programme. Selection criteria are discussed with prospective students and staff on partner campuses, where deans and principals are requested to prioritise nominations of scholarship candidates, and to expedite their studies by providing support for successful candidates, for example by arranging replacement staff or leave of absence for junior staff members.

The selection of scholarship recipients from among the applicants is regarded as one of the most important steps in GEM in the FASS Graduate School. Strong sociological

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justification exists for stressing selection as strategic leverage of success. Based on his seminal study of complex organisations, Etzioni (1964) formulated this dictum: The more selective an organisation is at the point of admission of its members, the less socialisation is necessary after admission to ensure compliance with the values and norms of the organisation, or conversely, the less selective an organisation is in admitting members, the more socialisation and exercise of power is required after admission to ensure compliance with the organisation's behavioural norms.

To be selective in the admission of doctoral students, one needs a pool of applicants that include excellent applicants, and the larger the pool, the more likely it will include excellent candidates. The pool of applicants is grown by recruitment and marketing, but the most successful marketing tool is word of mouth which, in the case of the FASS Graduate School, took off soon after the first year of enrolment. Currently the number of applicants annually exceeds the number of available full-time scholarships by a factor of six to ten, enabling the FASS Graduate School to be increasingly selective in admissions.

In the FASS Graduate School, selection is a multi-phased process. Applications are received by the Graduate School, where they are checked first for eligibility and then forwarded to departments for prioritisation or rejection. This is because, at SUN, doctoral programmes have always been and currently still are structurally located in an academic department, which therefore is the first point of control in the admission of doctoral candidates. FASS departments and supervisors are encouraged to re-check the academic credentials of applicants sent to them and to interrogate, by any legitimate means available, their concept notes on the advertised topics before recommending them for a scholarship. In addition, the fierce competition amongst departments and supervisors for this scarce commodity – full-time doctoral scholarships – further encourages them to stress the academic quality of their nominations in order to increase their chances of winning such scholarships. The prioritised departmental lists are then considered by the FASS Graduate School Board which ultimately awards the scholarships, taking into account the track records of the candidate as well as the supervisor, whether the department is willing to contribute some of its own funding to the scholarship amount, and some demographic targets.

Once the recipients are selected and approved by the Board, the scholarships and all student financing are administered fully by the Graduate School office, for the full duration of the scholarship, including notifying the successful candidates, obtaining signed contracts, obtaining regular progress reports with endorsement from supervisors before authorising payments, managing incentives, and making final payments right up to graduation. Simultaneously, the supervisors and co-

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supervisors of approved full-time scholarship students are notified that award of the scholarship is conditional upon attendance of an orientation workshop which has to take place before commencement of the next year's full-time scholarship programme. The purpose of this workshop, offered by the Graduate School, is to provide full information about the Graduate School's operational procedures, to clarify expectations[4] regarding effective supervision and support of full-time students and about the creation of an interactive learning environment, to alert supervisors about the steps to be taken to ensure that supervision is continuously available also during periods of study leave, as well as about the steps the Graduate School will take to support students and supervisors and to handle a breakdown in their relationship, and to impress upon the supervisors their fiduciary responsibility to protect the (substantial) investment entrusted to them.

It is clear, therefore, that the structure that controls the scarce resource – full-time doctoral scholarships in this case – is able to set the 'rules of the game' or operations. These operations are not only tolerated but accorded legitimacy in so far as this structure and its operations advance the interests of all the stakeholders: the doctoral students first and foremost, their supervisors, the academic departments, the FASS, the partners, and ultimately the university and the academic project. By the same logic, it is in the interest of the FASS Graduate School to obtain the funding necessary for the scarce resource, and to operate (that is, apply the 'rules of the game' or operations) in ways that will ensure the successful utilisation of the resource. The latter (successful management of the scarce resource) is a condition for the former (obtaining funding): the operator (the FASS Graduate School) is entrusted with funding to the extent that the structure and its operations produce the promised or desired outcomes. To paraphrase: external funders will give scholarship grants to the FASS Graduate School because they have confidence in the Graduate School's full-time doctoral studies management model. This is a condition of its sustainability, a point to which we will return later.

Provision of continuous, programmatic support

Key to the operations of the FASS Graduate School is the provision of continuous, programmatic support. This support is called programmatic because the timing of most or all of the support events is regarded as crucial. The support is programmatic when the timing and content of support events are specific to the stage-of-study

4 Discussing promising practices, Louw and Muller (2014:16) quote an ASSAf (2010) study showing that clear articulation of expectations was unexpectedly found to be the most critical programme success factor.

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needs. This is in clear contrast to the cafeteria type of support offerings such as the popular summer or winter schools where clients with enough money can fill their plate with any of the items on the menu for which they have an appetite, regardless of whether they need it at that particular time of their study programme (if they have one).

An example of this (programmatic) approach is the social and administrative support which students receive when they arrive on campus, which includes registration, banking, accommodation, IT, study space, library access, medical insurance, general orientation. It is known that foreign or first-time students can take weeks to sort out administrative obstacles. The FASS Graduate School sees to it that all administrative matters are taken care of within the first week or two, in group format so that cohort cohesion can begin to develop, and so that the regular academic study programme can commence with little or no interference.

Preference for a cohort-based programmatic support programme rested partly on the logic set out above, but partly also on experience. Although support modules were available within the university, these were only offered in the typical seasonal (summer and winter) school formats. We soon learnt that enough paying clients[5] have to be enrolled to off-set staff and other costs, which in turn requires advertising, administration and suitable infrastructure, such as space and computer access only available during undergraduate study breaks. So it happened that our first cohort of full-time doctoral students had to wait until the autumn break for their first proposal writing course, a set-back of at least two months. Moreover, the course lacked focus because it took in many additional postgraduate students (including Masters and doctoral students) from diverse academic cultures and countries. By contrast, in the next year the Graduate School organised its own specifically tailored writing course for the new cohort within two weeks of commencing the programme. Thus the FASS Graduate School initiative was given special meaning and coherence by focusing on the students' stage-of-study needs in designing support interventions, and this became a critical success factor in the programme.

In the course of time it became patently obvious that other support units offering occasional or seasonal support events, are incapable of providing *programmatic* support as defined above. GEM therefore became an integral part of the FASS Graduate School's structure and functions.

5 We chose this term partly to foreground the creeping commercialisation implied by the phenomenon of stand-alone short courses into which marketable chunks of knowledge are packaged and offered for money to anyone able to "pay", with scant regard to its academic appropriateness in a particular "client's" programme of study.

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The Graduate School's programmatic support is of necessity more intense during the beginning phases and especially the first semester of the study programme. Full-time doctoral scholarship students are required to complete and submit their study proposals for senate approval during their first semester of study. In the first year of the Graduate School's existence, this requirement was "during the first year of study". The Graduate School management learnt quickly that the "first year" requirement did not inspire diligence and therefore it was changed to "the first semester of study", coupling it with more intensive programmatic support. Though a few departments thought the new requirement was harsh, students who do not complete their proposals within one semester are now exceedingly rare.

Weekly meetings and the training programme during the first semester of study are compulsory for new full-time students. The training programme typically includes seminars and workshops on topics such as the following:

- Proposal writing guidelines and practice
- Principles of research design
- Introduction to either qualitative or quantitative research designs
- Library orientation (SUNScholar; Refworks; improving literature review and search strategies)
- On-track planner (electronic project management tool)
- Automated document structuring
- Research budgeting
- Practical logic and critical reasoning skills
- Integrity and ethics in research
- Procedures for ethical clearance

During the second semester of the first year, training events address methodological and theoretical issues and are offered less frequently. During this time the full-time students are beginning to execute their research plans and often need support or training on specific methods and research tools, as well as theoretical approaches. The Graduate School continues to facilitate and coordinate training opportunities, but supervisors begin to take on a greater role in training or guiding the students to appropriate training opportunities.

Scholarship students are required to remain in contact with their supervisors and co-supervisors throughout their study programmes. Student progress is centrally monitored, requiring endorsement from supervisors, three times per year. Payment of the scholarship is either suspended or terminated if progress is not satisfactory

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or does not improve after a warning. Students are informed well in advance about the requirements and deadlines for the submission of a doctoral thesis, for example editing, submission dates (August for graduation in December), and so on.

As will be seen later, some full-time scholarship students succeeded in completing all the requirements in two academic years and graduated in one of the ceremonies at the end of the second year. In such cases the remainder of the scholarship is converted to a postdoctoral fellowship which is tenable as long as the student remains on campus and does not accept full-time employment. The FASS incentive schemes introduced in 2012 may also have played an encouraging role: R5 000 in research funding for doctoral students who graduate within three years of first registration; R10 000 in research funding for master's and doctoral students or recent graduates who published their first accredited publication based on their postgraduate study; and R15 000 in research funding for supervisors whose doctoral students graduate within three years of registration.

When the student-supervisor relationship breaks down, the advising-and-retention component of GEM comes into effect (see Figure 6.1). This entails that the Graduate School, and members of its Board, if necessary, must mediate to either repair or sever the relationship and to find new supervisors – one of the more difficult functions of the Graduate School for which there is not yet a blueprint and which fortunately has not often happened in the Graduate School's brief history.

INDICATORS OF SUCCESS

The goal of the FASS flagship project was to establish world-class doctoral programmes in the arts, humanities and social sciences, relevant to the problems of development on the African continent. This terminology implies a willingness to be benchmarked against 'global' standards and trends in doctoral education. We postulated the following as generally accepted benchmarks: quality, internationalisation, output, throughput, and sustainability.[6]

Quality is assured by a compulsory minimum of three examiners per candidate excluding the supervisor, of which at least two must be from outside the institution and at least one from abroad. These requirements are administered by an

6 In choosing these benchmarks we were influenced by some of the recognised authors on doctoral education and graduate schools, such as Nerad (2004), Denicolo, Fuller, Berry and Raven (2010) and Louw and Muller (2014); and organisations such as the UK's QAA (2011), the DFG (2013), and LERU (2014). We found that all of these benchmarks are implicit in the fourfold framework of quality, growth, transformation and efficiency, used by Cloete, Mouton and Sheppard (2015:24) to analyse doctoral education in South Africa.

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independent examinations office. The composition of the examination committee must be approved by the dean.

Quality is also indicated by the achievements, awards and testimonies of the graduates. One recent example is Dr James Ikobwa from Kenya, who was part of the first cohort and graduated after three years' study in March 2013. He became the first academic in Africa to receive the Jacob- und Wilhelm-Grimm-Förderpreis – the "highest recognition in international German Studies" for young academics. When asked about the reasons for his achievement, he mentioned the establishment of the FASS Graduate School as an innovative way to make the process of acquiring a PhD time- and resource-efficient, and identified three success factors: regular progress reports every three[7] months, quality supervision, and collaboration with partner universities in Africa and elsewhere through joint supervision and research stays (SUN, 2015).

Internationalisation is a recent global benchmark that is often narrowly conceived of as involving study at, or exchange with European or American universities. Our position is that exchange amongst African countries counts equally as internationalisation, with the added advantage of creating a rich diversity of perspectives rooted in African conditions. Table 6.2 reflects the nationality (country of origin) of students enrolled in the FASS Graduate School.

TABLE 6.2 FASS Graduate School enrolment by year and country of origin

Country of origin	2010	2011	2012	2013	2014	2015	2016
Angola	1	1					
Botswana	1	1					
Cameroon							1
Democratic Republic of Congo	1						1
Gabon	2						
Ghana			3	3			3
Kenya	3	3	3	1	3	1	3
Lesotho	1						
Malawi	3	2	1	1	4	1	1
Nigeria		1			1	1	1
Rwanda							1
South Africa	8	4	4	4	12	5	4
Tanzania	2	1	2	1	3	5	5
Uganda	4	3	4	3	2	1	2
Zambia							1
Zimbabwe	4	6	4	1	3	3	1
TOTAL	**30**	**22**	**21**	**14**	**28**	**17**	**24**

7 In fact, three times per year, thus every four months.

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Table 6.2 shows that a total of 156 scholarship students were drawn from 16 African countries. Almost half (47%) were candidates nominated by our PANGeA partner institutions, while only a quarter (26%) of the scholarships went to South African students. In terms of internationalisation, this is clearly a success story comparable to an internationally renowned PhD hub such as the Bayreuth International Graduate School of African Studies (BIGSAS:2015), Germany, where "[s]ince 2008, 81 PhD students from more than 20 countries have already successfully finished their doctoral studies". Although precise statistics are unavailable, it is common knowledge that the vast majority of BIGSAS's PhD students are from Africa, and that active partnerships are developed with six universities in Africa.

The total picture of doctoral enrolments in FASS shows the numbers of students in different programme modes (Figure 6.2).

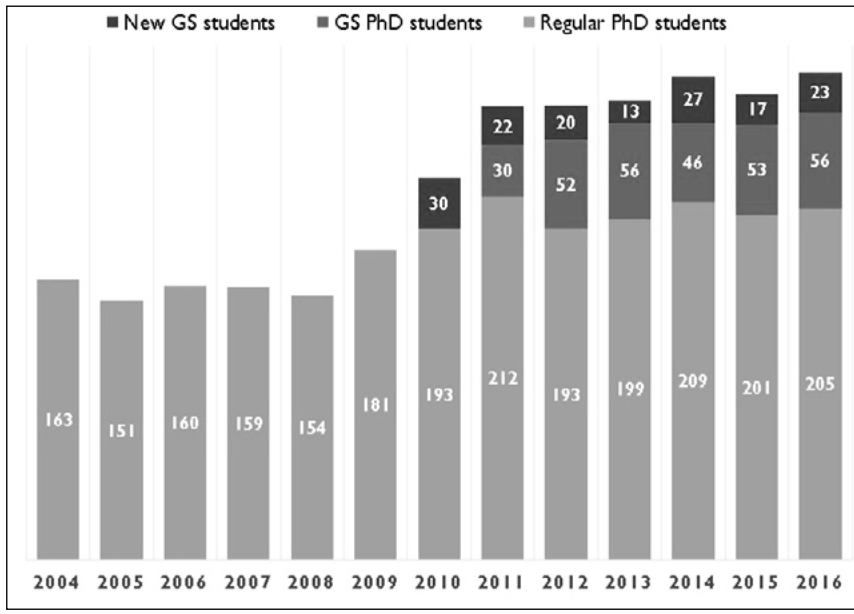

FIGURE 6.2 Doctoral enrolment in FASS by year by category of registration

The different categories of registration shown in Figure 6.2 are Regular, Graduate School and New Graduate School, where the last-named refers to first year affiliate doctoral registration for the purpose of preparatory work towards the doctoral registration. The average annual number of regular doctoral registrations from 2004 to 2009 was 161, which rose to an average of 201 from 2010 to 2016 – an unexplained increase of 25% – perhaps because of the meetings and planning for the Graduate School which started in 2009. The number of students supported by the Graduate School was 30 in year one, over 52 in year 2, and on average 70 or

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more every year thereafter. Since inception in 2010, the Graduate School's average annual share of total doctoral registration in the faculty is 24%. Therefore it should produce at least 24% of the FASS doctoral output, although one would anticipate slightly more, given all the additional resources to produce that output. Figure 6.3 illustrates the total doctoral output in the Faculty between 2004 and 2015.

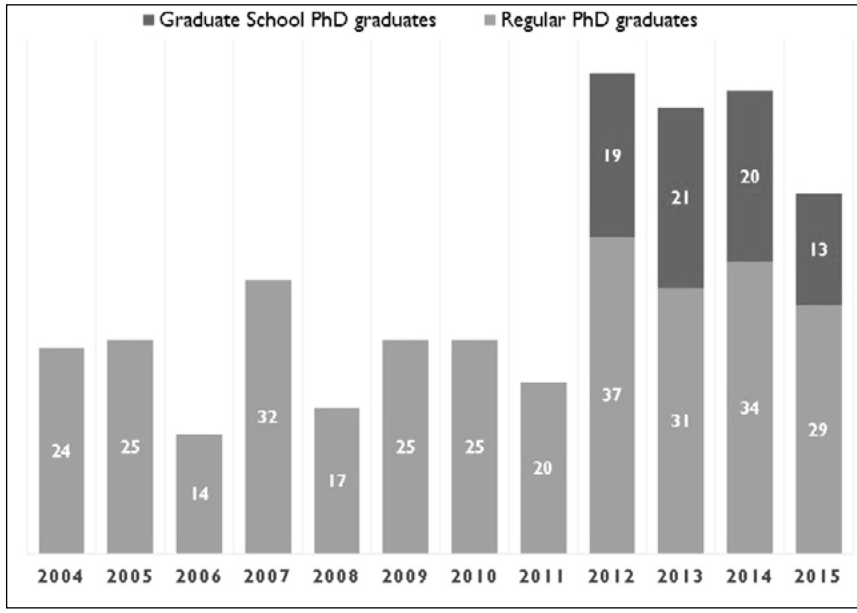

FIGURE 6.3 FASS PhD output by year and category

Figure 6.3 shows that the total doctoral output in the FASS increased by a staggering 121% when comparing the average output for 2004 to 2011 and the output for 2012 to 2015. The Graduate School's share of output is on average 36% of the total FASS PhD output over the four years from 2012 to 2015, well above its 24% share of total enrolments, and on only 8.2% of new enrolments three years prior to graduation. However, one would have expected the Graduate School share of PhD output to be higher. Its share has to be seen against the background of the steep increase in the regular PhD output in the FASS: from an annual average of 23 (2004 to 2011) to 33 for the years 2012 to 2015 – an increase in regular student output of 43%, compared to an increase of 25% in regular student enrolments. The conclusion seems to be that the regular pathway showed significant improvement in the same period that the Graduate School became active in the FASS.

Throughput measures are equally as important as output measures. Since 2012, a total of 73 scholarship holders have completed their doctoral degrees through the Graduate School. The Graduate School thus produces an average of 18 doctoral

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graduates a year on an average of 22 enrolments. Furthermore, 78% of the Graduate School's doctoral candidates graduated in three years or less between 2012 and 2015. Around 18% completed in four years, while only 4% have taken five or more years to complete. It should be noted that a large majority of those that completed in four years were from the first (2010) cohort and the subsequent student success has, in large part, been a result of the intensive and focused academic support and skills development that was introduced by the Graduate School in a structured and stage appropriate manner from 2011 onwards, coupled with the rigorous monitoring and evaluation three times per annum.

In addition, throughput is measured by time to degree (TTD) in years for all of those graduating in a particular year, and by survival rates of the cohorts starting in a particular year, usually over a period of six years. We do not yet have sufficient data especially for the latter. The FASS Graduate School aimed to achieve a TTD of three years, which means that the 2010 cohort should have graduated in 2012. Figure 6.4 compares TTD for GS and regular graduates within the FASS since 2012.

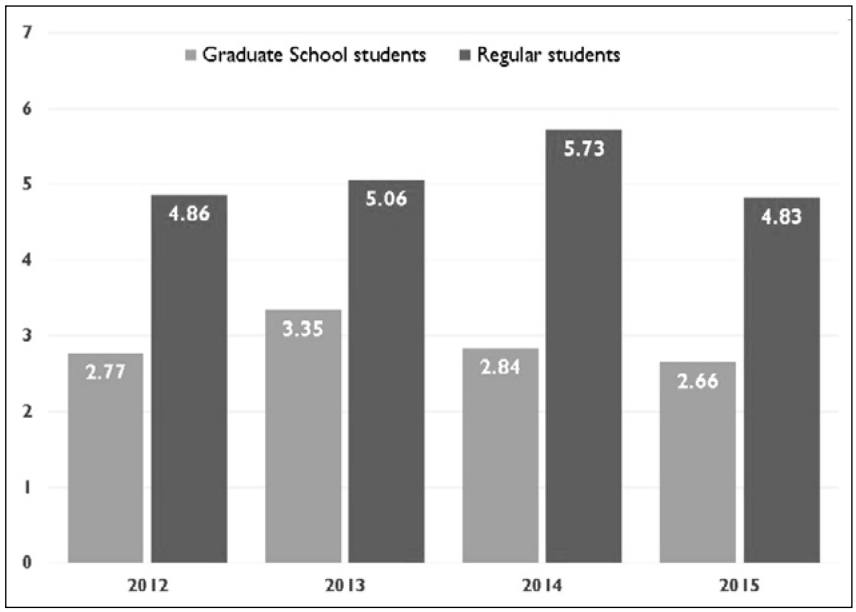

FIGURE 6.4 Time to degree (TTD) by year of graduation by category of enrolment

The data in Figure 6.4 indicates that the average TTD for Graduate School students is 2.9 years compared to 5.12 for regular doctoral students in the FASS. In three of the four graduation years, the Graduate School students' average TTD was less than 3 years. As noted above, the number of students from the 2010 cohort who required an additional (fourth) year of doctoral enrolment account for the increased in TTD

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in 2013. Thereafter, the TTD drops below the desired three years and is continuing to decrease. Despite a decrease in TTD for regular doctoral students between 2014 and 2015, they require almost twice as much time as Graduate School students to complete their studies.

SUMMARY

The data presented here confirms that the FASS Graduate School is realising its goal of establishing world-class full-time doctoral programmes on the African continent, meeting accepted benchmarks of quality and internationalisation, output and throughput. Moreover, the regular stream of PhD students in the FASS also showed remarkable improvement, especially in terms of enrolment and output, though not in throughput. Since very little else changed, this must be due at least in part to the rubbing-off effects of the Graduate School operations in many or most departments.

One of the most important gains resulting from the Graduate School's operations is the diversity of perspectives brought into departmental corridors due to internationalisation and the strengthening of collaborative networks on the continent. It is worth recalling that prior to the enrolment of the first cohort, FASS staff suggested only approximately 12 suitable contacts in African universities (other than South Africa). Now there are active partnerships in just about every department, pursuing joint projects, supervision and publications, plus alumni in at least a dozen African countries. Moreover, the curricula in many disciplines are beginning to benefit from new perspectives and especially new illustrative materials, case studies and examples. Staff exchanges remain few and far between, and admittedly the flow of students is largely towards the PhD hub, rather than both ways. However, this is the case even in a well-resourced unit such as BIGSAS; improvement will take time.

The overall trend towards greater quality in the Graduate School is supported by the competition for scarce resources, by full-time study and programmatic support, by the greater availability of training events, publications, and the role of incentives. The demonstration effects of success, for example in fundraising, recruitment, output and throughput also helps to build confidence all-round. And last but not least, the mutually beneficial relationships amongst all stakeholders create win-win associations.

The question of sustainability hinges on the willingness of the faculty management to re-invest some of the gains of its flagship project in the Graduate School's strategies and operations. This should be easy for three reasons: the Graduate School is responsible for the much-enhanced academic reputation and standing of the faculty, and also for an improved cash flow into the faculty coffers. The last is that the faculty

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would not want to disappoint the funders who had confidence in the Graduate School's doctoral studies management model.

Seven lessons of graduate school structuration

We should like to remind the reader that our formulation of lessons learnt will of necessity be confined by the limitations of the modes of analysis attempted here. As detailed in the introduction, our objective was to analyse how the particular structural configuration of the Graduate School as an organisation affects its functions and outcomes, an approach which foregrounded structural aspects rather than the individual characteristics of supervision, supervisors and students. In the context of organisational analysis, we followed Giddens' relatively simple conception of structure as the configuration of rules and resources to achieve the goals of the organisation.

Establishing a graduate school entails a reconfiguration of rules and resources which inevitably changes existing arrangements, potentially upsetting entrenched positions and the existing balances of power, risking the development of manifold sites of resistance which may jeopardise the success of the project. Below we list seven sets of action taken to manage those risks which, in our view, contributed to the success of the project.

1. Voluntary stakeholder involvement

The Graduate School did not threaten the regular pathway for doctoral studies in any way and it was made clear that those who wished to continue in the regular way, could do so without penalty. Great pains were taken to explain that doctoral outcomes remained subject to the same quality controls irrespective of the pathway followed to get to the outcome. Similarly, incentives (for example for completion within a stipulated period) and training events were made accessible to all doctoral students and their supervisors in the faculty. At the same time, however, it was made clear that joining the full-time doctoral scholarship pathway as offered by the Graduate School was a voluntary decision open to any department or supervisor, provided they (especially students and supervisors) comply with the conditions set by the Graduate School (i.e. follow the rules in order to access the additional resources). It can be seen from the enrolment and output data provided here, that the regular pathway remains the most frequently utilised pathway in the faculty. However, the regular pathway also showed marked improvement concurrently with the establishment of the Graduate School. This brings us to the second lesson.

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2. All stakeholders gain something

The second lesson is that such structural changes have a far better chance of achieving legitimacy when it can be shown that all stakeholders will potentially and proportionally gain something without those gains being at the expense of other role players, i.e. that gains are mutually beneficial. We were able to demonstrate the advantages of the scheme for doctoral students who otherwise would have had to struggle for much longer periods without adequate resources and support; for supervisors and other staff members who could advance their research programmes, their networks and their careers; for academic departments (who in many cases now co-invest money in the scholarship offered to "their" students), the faculty and the university who benefited directly or indirectly from the enhanced academic reputation, diversity of views, establishment of regular interactive learning events for postgraduate students and staff, curriculum transformations and improved financial flows; and for our partners whose students and staff members strengthened their qualifications, networks and capacity to compete for further funding.

3. Leadership support is essential

The third lesson is that the home institution must be willing to kick-start the operation with an initial investment. This implies not only a financial injection but also a commitment from the institutional leadership that is indispensable in both the establishment and the implementation phases of the scheme. Support in the first phase is a necessary but not a sufficient condition for success. In the long run, the latter is more decisive. Many initial staff resistances could only be overcome because the dean remained involved and continuously strengthened the resolve to institutionalise those procedures and resources (i.e. structural elements) which were deemed essential for the success of the operation. Some examples are: calling this initiative the flagship project of the faculty and acting on this status in tangible ways; defining the meaning and period of full-time study (no paid work, being physically present, etc.); compulsory supervisor orientation; requiring approval of the doctoral proposal within the first semester; a strict progress monitoring system; making resources available for incentives, recruitment and especially for fundraising visits, etc.

4. Programmatic study support

The fourth lesson is the realisation of the value of programmatic support, especially during the beginning phases of the study programme. This means that the impact of education, guidance and training interventions is optimised when the timing of its offering is determined by the students' needs at a particular stage of their study

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programme. We regard this as one of the main success factors of the Graduate School project.

5. Regular in-depth monitoring of student progress

Many doctoral scholarship schemes are content with a progress report every year (for example the NRF) or every semester, and are often content to accept vacuous statements such as "the student is making good progress" as adequate. We were of the opinion that a substantial investment of scholarship funding and other resources warrants a more frequent assessment of progress (three times per year) against set study targets, which at every stage should show whether the student is *on track and on time* to graduate after three years of full-time work on his or her study project. Payment of a scholarship instalment is conditional upon approval of the progress report as satisfactory by the Graduate School Board. Where progress reports are found to be unsatisfactory, steps to remedy the situation are agreed with the supervisor and communicated in writing. If the situation does not improve after one period of warning, the scholarship may be (and in a few cases has been) suspended until the remedial targets are met. Of course, we make provision for special circumstances such as ill health or other unforeseen circumstances – the ultimate goal remains the graduation of the student.

6. Realistic budgeting and planning

Compared to the doctoral study proposals of five to ten years ago, the proposals which are currently scrutinised and recommended by the Faculty Higher Degrees and Research Committee testify to much more realistic budgeting and planning for the students' and the department's doctoral study programmes. This is one positive spin-off from the proposal writing training course during the first semester, guided by the faculty planning and budgeting guidelines. Supervisors are also invited to this event and many have done so, reporting positively on the experience. Both supervisors and students are inclined to limit their aspirations for the doctoral research programme by a realistic appreciation of the available time and financial resources, producing proposals which are increasingly more feasible and therefore more likely to be executed on plan and on time.

7. Realising the multiplier effects of an interactive learning environment

One of the main advantages of full-time doctoral study is that students are likely to be more frequently exposed to other students who are in "the same boat", so to speak. The figurative "boat" may contain others who are at the same stage of study, but also some who are at different stages of the journey; thus providing opportunities for supportive social as well as academic relationships, both within

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and between cohorts. But we have observed the greatest multiplier effects when persons working on complementary aspects of the same problem area are regularly brought together in constructive, interactive engagements like seminars, reading and writing groups. It is also within such teams that critical reading of essays or chapters can be pre-scrutinised by senior team members (for example post-docs) before they reach the designated supervisor(s). One of the reasons why we encourage prospective applicants to apply with a concept note expressing his or her interest in the advertised research area, is that a critical mass of team members working on the same problem is more likely to benefit from the multiplier effects of an interactive learning environment.

In conclusion, the limitations of the case study apply here – particularly as our purpose was to present a detailed account of one initiative and therefore a conceptual framework for comparative analysis remains implicit at best. Possible future research could usefully include the development of a typology of graduate schools according to specific, desirable structural variables. It could also follow through with a case description of, for example, the Humboldt University Graduate School, as an exemplar of the graduate school model utilised especially in the DFG's Excellence Initiative (DFG 2013). Given this material, we should be able to execute a comparative case analysis taking into account some of the latest trends in doctoral education. In turn, this should enable us to demonstrate more convincingly how graduate school outcomes can be expressed as a function of its structural arrangements.

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