Righting an Inverted Pyramid: Managing a Perfect Storm

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Abstract

The higher education participation rate in South Africa has been stagnant over the last 20 years and this has resulted in a very substantial gap between between the supply and demand of undergraduate education. The pressure for massification is also a response to other sociopolitical and economic imperatives. Notwithstanding the projections in the Green Paper on Post-School Education, it is argued that the structural inefficiencies in the way in which post-school education is currently structured will prevent massification. A purely speculative model is discussed for the organisation of higher education in KwaZulu-Natal, which it is argued, deals with these structural constraints and inefficiencies. It is proposed as a speculative model because its primary function is to demonstrate that there are indeed viable ways to re-think the construction of the post-school education and training system to respond to the material conditions that prevail. The model proposed is a single federal institution of at least 60 existing campuses spread throughout the Province. A necessary condition for the model to work is that it will be a highly differentiated and then strongly articulated, thereby dealing with a rather contested national challenge of differentiation but in the context of meeting the needs of widening access.

Keywords: massification, post-school education, articulation, differentiation, federal university system.

Introduction

This article is an attempt to understand how to deal with a tremendous, perfect storm that is coming down at the higher education system and about

which there is little if any major thinking going on – a storm centered on the growing disjuncture between the supply and demand of higher education. This article does not attempt to arrive at a solution to this very serious problem. Rather, it is an attempt to demonstrate that there may well be new and innovative ways of thinking about the massification project through addressing the *construction* of what we now refer to as the post-school education and training system. This takes into account the sociopolitical and economic contexts that prevail. It asks whether we ought to go back to basics in thinking about the purpose of higher education in society - to shift its central purpose from the production (and reproduction) of elites to one in which it builds the intellectual culture of society at a more general, broader level and is more responsive to the needs of socioeconomic development.

The Challenge of Access

Durban University of Technology (DUT) received some 76,000 applications from individual students for about 6,000 first-year places in 2013. This type of ratio is reproduced at all universities in KwaZulu-Natal. At the centre of the student demonstrations at DUT over the last 5 to 10 years has been the issue of student access though this has had a variety of representations. This is not surprising in the context of South Africa's extraordinarily high unemployment rate and the advantage that graduates bear in the labour market as they seek jobs.

This matter has to be seen in the context within which universities are located. More generally, higher education in South Africa faces serious challenges as it contemplates its future in an uncertain global environment. Perhaps the most complex of these are the shifting sands of national imagination that impact on the way in which higher education policy is driven. In the post-1994 period, the system has seen itself responding to the Reconstruction and Development Programme (RDP), the outcomes of the National Commission on Higher Education, the RDP White Paper, the Growth, Employment and Reconstruction (GEAR) macroeconomic plan, the African Renaissance Project, the Accelerated and Shared Growth Initiative for South Africa, among others. Each provided a framework for rethinking the role for higher education in society. Perhaps most importantly, it has produced a shift towards short-termism in national strategy (Bawa 2012).

With the publishing recently of the National Development Plan (2011) that uncertainty continues.

Instability in subsidy funding has been another source of uncertainty. While the overall budget for higher education has remained (admirably) steady, the subsidy per student FTE (Full Time Equivalent) has begun to decline. Coupling this to inflation at about 5.5%, it is clear that this is a system under growing financial stress. The failure of the higher education system to produce sufficient numbers of doctoral graduates makes the system unsustainable (ASSAf 2010). There is recognition that the major problem here is the narrowness of the pipeline that produces possible candidates for doctoral education. The inability to recruit academics with doctorates in some disciplines has reached crisis proportions and it is fair to say that the system is not quite sustainable in terms of securing its future professoriate.

Perhaps the challenge of most consequence is the growing sense that the legitimacy of higher education in South Africa is under serious threat. There are a number of reasons for this and primary amongst them are the notions that universities are elitist, exclusionary, undermining of government development strategy and unresponsive to the challenges of South African human resource development needs. These are common perceptions and there is sufficient evidence in meetings between Higher Education South Africa (HESA) and the Minister of Higher Education and Training and between (DHET) and the Higher Education and Training Parliamentary Portfolio Committee that there are concerns in governmental circles about the conditions of institutional autonomy and academic freedom. While strong, coherent arguments have been made to refute these concerns, it would appear that they are underpinned by deeply ideological factors. In post-1994 South Africa, there has never been an attempt to develop a social contract between higher education, the state and the general populace. Universities will not be able to address all the expectations that have been heaped on them. This does not however, permit them to simply abrogate their responsibilities to address these expectations as social institutions. And this must mean that they ought to consider new and viable approaches to their organisation either amongst themselves or in new formations. For the purposes of the arguments presented here with regard to massification, the idea is to consider higher education (and its institutions) within the broader post-school education and training framework.

The Challenge of Massification

Between 1994 and 2012, the participation rate of 18-24 year-olds in higher education was mainly stagnant as it grew from 14% to about 17%. This is mainly by design, following on the policy discussions that unfolded under the aegis of the National Commission on Higher Education (NCHE 1995) and then in the Green and White Paper processes that followed in 1996-1997. This must be seen in light of the global growth in tertiary enrolments by 160% since 1990 - with some 170 million additional students in the systems of the world (Sharma 2012). Between 2002 and 2009 this growth was dominated by the growth in enrolments in India and China. According to Sharma (2012), these nations accounted for some 26 million of the 55 million additional enrolments during this period when enrolments in South Africa grew from about 643,000 to about 840,000 at about 4% per annum (Taylor 2011).

This slow growth scenario is somewhat out of synchrony with the policy impetus of macroeconomic frameworks and their impact on, for example, policy in the areas of science and technology, trade and industry, and so on. The creation of a Department of Science and Technology and the National System of Innovation with all its institutional and structural paraphernalia is a direct result of the aim to create a knowledge-based economy. Societies that have made this transition have had to vastly increase the participation rate of 18 to 24-year olds in post-school education.

There are a number of reasons for this stagnation in South Africa and primary amongst them is the fact that one of the outcomes of the National Commission on Higher Education, after much debate and discussion, was *not* to massify the system but to use a measured, safe approach of growing the system gradually (NCHE 1995). This was one example of an imagination of the 'new' South Africa: that of the *negotiated revolution*. Much fear was expressed at the time that the successful parts of the higher education system (meaning mainly the historically-white universities) would be damaged by a process of massification. And little thought was given to finding new ways to achieve this goal of growth.

Another important determining factor is the issue of affordability in terms of the space in the national fiscus for a rapid expansion in enrolments at higher education institutions. No attempt was made to address new,

innovative constructions of the post-school education system to produce higher participation rates.

Massification has been achieved in many industrialised societies such as the USA, Canada, South Korea, the Scandinavian countries and others. Many approaches have been adopted to address this growth imperative but at the heart of all of them is the construction of post-school systems that are properly differentiated and articulated.

In many cases there is also a thriving for-profit higher education private sector. Increasingly, there is acknowledgement that in South Africa, the public post-school sector by itself will not be able to achieve the kinds of growth in enrollments required for the development of a massified system. Particular attention has to be shifted towards the development of the for-profit and not-for-profit private sectors. In particular this means reviewing the regulatory framework for these sectors so that they are encouraged – rather than discouraged – to invest in the supply of good quality post-school education. Again a significant number of important studies have already been done which indicate that much has to be achieved in terms of developing enabling regulatory frameworks (see for example, Kruss 2004).

While the role of technology in higher education has been gaining momentum over the last 2 to 3 decades, more recently, the use of technology has been strongly geared to address the issue of online learning at massified levels. The development of MOOCs (Massive Open Online Courses) – with all the hype and apparent contradictions associated with them – provide a hint of just how radical the changes to higher education may be in the near future. The story of 12 year-old Khadija Niazi of Lahore, Pakistan, studying MOOC courses in Artificial Intelligence, Physics and Astrobiology designed by professors at Stanford University, is noteworthy (Smale 2013). A recent issue of *EDUCAUSE Review* describes and categorises the different kinds of technology-based programmes on the market, of which MOOCs are just one example (Hill 2012). Udacity has 2.5 million students and Coursera, established only in 2012 by computer science professors Andre Ng and Daphne Koller at Stanford University, has 2.7 million students taking the 222 courses it offers. The impact of all of this on universities is yet to be properly understood but their influence on broadening access to post-school learning is likely to be profound.

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The University in Ruins

The legitimacy deficit that has surfaced over a number of years in South Africa is due partly to the failure of good communication and meaningful dialogue between the sector and national and regional stakeholders. It is also due partly to a lack of trust and a failure of leadership. In 2012 no fewer than 5 universities were 'under administration', meaning that the ministry stepped into these institutions, disbanding their councils and instituting the facility of administrator. But at its heart, the legitimacy deficit is based on the fact that there is a strong perception that the higher education sector is not responsive to the demands of national development. It is in this context that the issue of massification has to be addressed. It is not possible for the higher education system – and more generally the post-school education and training system – to simply ignore the disjuncture between the demand and supply of post-school education opportunities for South Africa's young.

In his provocative, final book, *The University in Ruins* (1996), published after his tragic untimely death in a plane crash, Bill Readings the Canadian sociologist raises in eloquent terms the big idea that the purposes of the university as a social institution producing and reproducing the nation have been eroded to the extent that there is no coherent route for its revival (Readings 1996). His focus is on the emergence of the corporate university and the effects of globalisation on it and on the environment in which it exists. He decries the burgeoning market model for universities as undermining collegial, cooperative governance. The two threads that he follows are the undermining of the centrality of reason in the university and destruction of the vision of the Humboltian university as the place where national culture is created and recreated. The university that Bill Readings defends *is indeed* in ruins. But the extraordinary increase in the demand for higher education globally both for teaching/learning and research mandates must mean that there is need to revisit his sad pessimism. It is hard to accept that the space for re-invention of the university in South Africa is closed, and especially so because the development of nationhood remains such a priority.

But as Readings points out about the global university too, South African universities experience intense and growing pressure to be more relevant to the needs of the developmental state, industrial innovation, to be more market-oriented and so on. This happens primarily through the evolution of funding mechanisms in the post-1994 period. And some

analyses have been performed about the impact of this on the system (Bawa & Mouton 2002). Local history overlays this kind of global uncertainty with local texture drawing on a past and present that are racialised and unequal.

As has been pointed out South African higher education is experiencing an erosion of legitimacy with a strong and prevailing view in governmental, parliamentary and in broader social circles that universities continue to be unaccountable islands of privilege. Ordinary people don't quite see themselves and their lives in these institutions. And so there has been, over the last 6 months, the emergence of a number of new measures by the state aimed ostensibly at 'correcting' the trajectories of the universities and the university system more generally, striking seriously at the very essence of institutional autonomy. Although massification is by no means an imagination of the current South African government, it is key to addressing the issue of legitimacy.

There hasn't yet been the emergence of a social compact between the universities and the sociopolitical context in which they are embedded. The emergence of such a compact is necessary for the development of trust and the basis for a common understanding as to the importance of institutional autonomy and academic freedom for the proper functioning of higher education. A fundamental part of this is to work with government in understanding how to address the disjuncture between the supply and demand of post-school education and training and hence massification.

Returning to Massification

The impetus for massification is driven by many factors and policy imperatives. Firstly, all societies aspire towards building deep and broad intellectual cultures and social infrastructure of quality so that democracy and conditions of peace, stability and so on are enhanced. South Africans have been shocked in the recent past by horrendous acts of xenophobia, violence against women and children, the seemingly lost battle against HIV/AIDS, the burning of train coaches by commuters, and so on. Bawa and Vale (2009) pose the conjecture that while it is important to ask what the cost of universal post-school education is, the more pertinent question to ask is what is the social cost of not having universal post-school education.

Secondly, the impetus for massification in other societies is driven in large part by the needs of information and knowledge-rich economies. In *Constructing Knowledge Societies: New Challenges for Tertiary Education* (World Bank 2002), the World Bank makes the argument that it was investment in higher education in South Korea that was an important determining factor in the divergence in its economic profile from that of Ghana between 1960 and 2000. In 1960 both nations had similar values for the GDP per capita. Korea now has the highest post-school education participation rate in the world. It is also the most highly IT connected nation in the world. In South Africa, as was pointed out earlier, the Growth, Employment and Redistribution macroeconomic policy, or GEAR as it is more commonly called, unleashed tremendous policy enterprises in the areas of science and technology and in trade and industry. It did not however, result in any policy impetus relating to building much higher levels of participation in higher education.

Thirdly, sufficient evidence exists both nationally and internationally that there is a close correlation between educational levels and the earning power of individuals. As has been pointed out in the introduction, this is not surprising but it is doubly important in South Africa with its extraordinarily high unemployment rate and its high Gini coefficient. For millions of young South Africans a higher education is a step out of poverty and perhaps into the middle classes. It should not be surprising therefore that an institution such as DUT consistently receives in excess of twelve times the number of applications from individual students than there are places available for them in its programmes.

Consistent with this demand for access to higher education is that for financial aid. In 2013 DUT has distributed in excess of R300 million in financial aid to students who qualify in terms of the criteria laid down by the National Students Financial Aid Scheme (NSFAS). The scheme is extraordinarily important as an infrastructure for access. The allocations to DUT are by no means enough to satisfy the demand for financial aid and this demand-supply gap is consistently at the centre of, often violent, student protests and actions on the university campuses serving students from poor families and communities.

The South African higher education system is wasteful. Although this is not yet fully understood, the drop-out rate of students from universities

is at about the 50% level. This is a shocking statistic even if the figure were a half of this. But there is also wastage at the systemic level. The system operates very much like an inverted pyramid in the sense that the largest participation rate (more than 70% of it) occurs in the most expensive part of the system: the universities and universities of technology. These institutions have a high cost per FTE for a variety of reasons including the fact that they have a research mandate. Only 30% of the students are in the Further Education and Training (FET) college sector; that is, the cheaper part of the system has the smaller participation rate. This is an absurdity. And it is doubly so in the circumstances that the school systems are simply dysfunctional. Further, the rules of articulation between the bottom of the pyramid and the top are not fully developed and students often find themselves caught in 'dead-end' qualifications.

Perhaps, with most capacity to cause havoc and degradation of per-formance of the higher education sector is the appalling performance of the primary and secondary school systems in developing and preparing students for successful participation in the world of work or in post-school education – whether it be at the universities or at the FET colleges. There can be two responses to this. The first is to deliberately and systematically exclude underprepared students from higher education and to build higher education just for small elites. The other approach is to agree with Dr Blade Nzimande, the current Minister of Higher Education and Training, that these are the only students there are and they have risen to the top in the system in which they have studied, the cream, and the challenge is to understand how best to manage their successful performance in higher education. The former option is educationally unsound, politically untenable and has to be excluded.

It is argued here that a responsive, responsible higher education system has to be proactive in addressing the demand for post-school education and training, that it cannot take refuge in its traditional location as a social institution. And it has take into account a number of large issues as it addresses this matter: the issue of building a broad-based intellectual culture, the needs of an economy that seeks to transform towards a knowledge-based economy and its research and education/training needs, deep structural inefficiencies in the current post-school education and training system, national fiscus constraints and the utter dysfunctionality of the primary and secondary schooling systems.

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The Post-School Education System

The publishing of the Green Paper on the Post-School Education System by DHET in 2012 opened up the way for a formal set of processes to investigate the ways in which we may consider the challenge of building the skills base of the South African workforce but to do this in a way that creates some level of cohesion between the university sector, the FET sector and the sector education and training authorities (SETAs). The concomitant White paper will follow shortly and it will be interesting to see how this document impacts the debates on massification.

The Green Paper adopts a minimalist approach to massification in three ways. The first is that it sets targets for the participation in higher education and in the FET sector. In the former it expects an increase of participants from current 800,000 to about 1.5 million by 2030. It is very thin on how this will take place and how to manage some of the crisis points such as the production of new academics. Second, it sees the dominant growth as taking place in the FET sector where the number of participants will grow from about 300,000 to about 6 million. How his will happen is not spelt out in any detail. Third, it adopts a narrow skills development paradigm that has a number of rather serious consequences as will be pointed out later.

Ten years before the Green Paper, several attempts had been made to address the creation of a post-school system coherent and synergistic in its parts. Amongst these are attempts by individual universities to address the issue of articulation between the colleges and the universities (CEPD 2012). At first this focused on structural articulation via implements such as the National Qualifications Framework (NQF). Notwithstanding the enthusiasm of the government to get this sort of articulation done, it has never made much progress because there were very few systemic attempts to address the matter of curriculum articulation at the micro level or the use of steering mechanisms at the macro level. In discussions, this failure is always posed as a political problem – the elitist universities keeping students from the FET colleges out. In fact there has always been steady stream of students transferring from the FET sector to the universities and especially to the universities of technology.

There have been other interesting attempts. A Ford Foundation funded set of projects to address this has been in operation since 2003 and some exceptional work has been done, led in part by the Centre for

Education Policy Development. There are a number of new attempts in which universities are engaging directly with Colleges. One example of this is a fairly substantial discussion between DUT and the FET colleges in KZN that came up with a three project plan: that the institutions would collaborate on staff development (both academic and administrative), on curriculum articulation and on the co-offering of NQF level 5 programmes which are currently out of bounds for FET colleges. Articulation is critical. It allows fluidity of the post-school system for the movement of students from the FET sector into the university one and vice versa. One characteristic of all of these, including the Green Paper, is that they are non-systemic in nature. They address key issues in a fragmented way without a coherent overarching imagination. For instance, a critical factor in thinking about the post-school system is the very poor reputation that the FET colleges enjoy amongst parents and students. This leads inexorably to the massive demand for places at universities and for the apparent intransigence of the inverted pyramid. This has to be remedied.

Imagining a Responsive System

What follows is an attempt to find a new configuration of post-school education and training to provide the basis for a new high volume system. The NCHE, when it sat and deliberated, could not have known the extent to which its policy advice would hamstring the emergence of new imaginations for higher education and training and especially to foster growth in participation rates. The speculative model presented here takes us beyond the NCHE and potentially addresses the constraints listed above. It is a speculative model because its primary function to demonstrate that there are indeed viable ways to re-think the construction of the post-school education and training system to respond to the material conditions that prevail.

KwaZulu-Natal has four universities and nine FET colleges. The four universities have about 110,000 students and they are based in Durban, Pietermaritzburg and in the Empangeni/Richards Bay complex. The FET colleges have 50 campuses in both urban and rural parts of the province and about 54,000 students altogether. The University of South Africa and other institutions also operate in this region but for the purpose of this model it is assumed that the focus is on the public institutions in the post-school

education sector that are domiciled in KwaZulu-Natal. Then there are the Cedara Agricultural College and a number of public nursing colleges respectively under the jurisdiction of Department of Agriculture and the Department of Health.

It has been noted above that one aspect of a solution to the issues raised above is the use of technology for mass-based learning. This has enormous potential to address some of these issues but the use of technology has to be seen as a facilitating enterprise in such a project rather than as a panacea. Higher education in South Africa has a nation-building role and the importance of face-to-face engagement in suitable curricula in the processes of education.

There are a number of models internationally that try to address the kinds of issues that are posed here. In most cases, there has been what may be thought of as retrofitting, where changes have been made to the systems to address the challenges of access and success, massification and issues of retention. Each has strengths and weaknesses but there is much to learn from them. City University of New York (CUNY) and State University of New York (SUNY) are two examples that function well with continuous attempts at trying to improve their performance. The former comprises a set of 2-year community colleges, four-year colleges, senior colleges and the Center for Graduate Studies and has an enrolment of about 250,000 students in formal programmes and about 450,000 students in formal and informal programmes. These are structurally and educationally differentiated and articulated. Another well-referenced and feted example is the so-called California Master Plan involving community colleges, state universities of California offering courses up to Masters qualifications and then the University of California system. These examples are replicated in some form or other in most massified systems.

What follows is an attempt to construct a model for a coordinated, differentiated and articulated provincial model of post-school education and training that addresses the key challenges of broadening access considerably – to shift the participation rate towards massified levels. The model is predicated on four underpinning principles:

- *It is a system that is first highly differentiated and then highly articulated*. If either of these fails then the purposes and objectives in

terms of the research and teaching mandates of post-school education will not be met and it would be a high-risk adventure.

- The model is conceived of as providing access to all who graduate from the secondary school system.

- The model has to take into account the deep inequities and the dysfunctionality of the school system. The implications of this are that the post-school system has to address the underpreparedness of students for higher education.

- The model takes into account the fact that it must have a serious research, knowledge-producing mandate with a strong emphasis on postgraduate education.

So What would a Model Look Like in KwaZulu-Natal?

Assume that the public institutions of KwaZulu-Natal – universities, universities of technology and FET colleges – merge into a single, federal institution, called KZN University (KZNU) to distinguish it from the University of KwaZulu-Natal (UKZN). Since KZNU will be a single institution, it will have a council and a chancellor. The university vice-chancellor (UVC) would chair the KZNU Senate and the KZNU 'federal' administrative offices will occupy a space independent of any of the 60 campuses of the new university.

What will the 'Federal' Administrative System Do?

The Council and UVC will bear the responsibility for the fiduciary wellbeing of the whole system. The UVC will be the public face of the 'federal' system. The 'federal' administrative system will be responsible for the creation and maintenance of a system-wide financial system. It will be responsible for the system-wide policies of various kinds such as differentiation and articulation, the approval of new programmes to be offered, conditions of service, and so on. It will be responsible for procuring

and managing licences for journal holdings and academic and administrative software that will be accessible to all the constituent campuses. One can imagine that there will be a large number of system-wide infrastructural facilities such as the procurement and management of a Learning Management System. And so on.

Each campus of more than 4,000 students will be managed independently by a structure similar to that of any current university. It will have a vice-chancellor, a campus senate and the rest of the administrative paraphernalia that goes with a university administration except for all those covered by the centralised system. There will be clearly demarcated mandates for the University Senate and the Campus Senates and for other governance structures.

At the beginning, the FET colleges will offer two-year qualifications (called associate degrees, perhaps) predominantly of a vocational nature. At the end of 2 years of study, students should be in a position to decide whether to enter the labour market or to proceed with their studies. This requires articulation. The university campuses will offer three and four year undergraduate qualifications (degrees) and masters and doctoral programmes.

Articulation has to be instituted by design. The pathways for students to migrate through the system, if they desire, should be clearly laid out. There are at least three levels at which articulation has to work for it to succeed. The first is a set of national instruments: the South African Qualifications Authority, the quality councils, the National Qualifications Framework, etc. that create the infrastructure for articulation. The second is a suite of university-wide policies and governance and management mechanisms to support the movement of students between programmes and qualifications (and hence between institutions). The third is curriculum articulation, ensuring that vertical, horizontal and diagonal articulation within and between the three qualifications sub-frameworks. The first is available. The other two would be projects of the new University.

General Education as the Cement

A discussion about the curriculum is probably too much of detail at this stage but General Education is an essential part of the model. At least 50% of all

undergraduate qualifications at KZNU will be General Education, which will include philosophy, mathematics, literature, history and so on. Some will be offered and assessed as writing courses, others as communications courses and so on. There are many reasons for this General Education component.

The first is simply to address deficits that students have from poor schooling. This curriculum provides for a systematic approach to address academic development on the one hand and the basis for building national and global citizens on the other hand.

The second is to address the idea that skills development has to be embedded in an educational paradigm. Young people are not cogs in some industrial machine. It is about education and education of young people. At meetings with about 6,000 first-year students at DUT, the Vice-Chancellor asked whether any had read a novel by Zakes Mda. Not a single hand went up. Just a very small fraction had any idea who South Africa's Nobel Laureates for Literature were. How will a nation be constructed when young South Africans have little or no knowledge of the nation's literature? And so with 12 years of schooling behind them we have to understand how best to utilise the opportunity of this sojourn at a campus of a university to help them to grow intellectually.

The third is General Education elements of these qualifications will be the cement of the system. They will provide the glue for the articulation pathways. The underlying principle is that all students will take mathematics, languages, history, and so on. Students who attend a two-year campus will have the right to access higher education if they perform at a certain level in the General Education elements.

The fourth reason to introduce General Education elements into the curriculum of undergraduate studies is simply to build the intellectual culture of new generations of university goers so as to enhance the deepening and strengthening of democracy and to build the capacity of young South Africans to engage with and grow to enjoy the rich diversity of South African society. The recent catastrophic xenophobic incidents shocked the nation but little is done to intellectually engage young South Africans with the beauty and challenges of diversity and difference in the construction of nations.

The fifth is to develop university goers to be lifelong learners. Most graduates will hold a number of jobs in their lifetime and each change will require education and retooling. Perhaps most importantly the challenge is

for new generations to access information and knowledge independently and mainly through the use of technology. The General Education elements will enhance their capacity to be lifelong learners.

The employers of graduates recurrently complain about poor skills of graduates relating to communication, writing, mathematical reasoning and so on. This is the sixth reason for General Education elements in the curriculum.

What is the Importance of this Particular Configuration?

The existence of a single university with as many as 60 campuses across KZN gives post-school and higher education a very large footprint across the province. The campuses will be highly differentiated in terms of mandate and strongly articulated in terms of student mobility. This will ensure that students see their local two-year campus as part of a large university. The Gamalakhe campus of Isayidi FET College outside Port Shepstone will be the Gamalakhe campus of KZNU. Over time this will contribute to the development of a new tradition that it is perfectly satisfactory for one to enter post-school education at a local two-year campus and to progress from there to a senior one.

With such a footprint, many students and their parents will be spared the cost of expensive urban accommodation and transport. Even if families are dependent on NSFAS grants for accommodation these loans have to be paid back. In a financial aid package the cost of accommodation could be up to 50% of the full package. This will allow the financial aid allocations to go much further in terms of the number of students that may be assisted.

What is the purpose of restricting this to KwaZulu-Natal? Firstly, this makes the project a doable one – a constrained, closed project. Secondly, it is the issue of ownership so that the local post-secondary institutions, local and provincial government, local industry and local communities may take ownership of the construction of such an arrangement. Thirdly, while not wishing to constrain the capacity of institutions to explore knowledge production at all of its frontiers – what is a society that does not explore the dynamics of an expanding universe – this will allow for a natural alignment between the challenges of contextualized development and industrial and social research and innovation.

Differentiation and Articulation

There is a raging national debate at the moment within the national institutions of higher education and at Higher Education South Africa (HESA), the Council on Higher Education (CHE), the Department of Higher Education and Training and in organisations such as Centre for Higher Education Transformation (CHET) and more generally in the higher education research community. There are many reasons for this debate but its driving impetus is the idea that a differentiated model with a differentiated funding model will produce world-class universities, how so ever this is defined.

A KZNU model makes this debate much more compelling and deals with building excellence at the same time as access is broadened and it allows these to be managed coherently and cooperatively rather than competitively.

Notwithstanding the need for well-equipped laboratories, libraries and small-class teaching, the cost of graduating a student at a two-year campus will be cheaper than at one of the senior campuses. The primary reasons for this are that they will not have a research mandate, they will be teaching intensive, they will focus on particular kinds of programmes and their cost of infrastructure and real estate management will be much smaller. The first two of these have important consequences for the staffing structure, which is by considerable measure the biggest cost on the budgets of these institutions. The declaration in the Green Paper on Post School Education to have as many as 6 million students in the FET colleges by 2030 may be infused with some optimism but it is correct in its orientation and represents an important shift in the policy terrain. This will contribute enormously to correcting the orientation of the post-school education pyramid.

At KZNU the majority of the students will be in the two-year teach-ing intensive college sector. Some of the existing campuses will have mixed mandates (teaching and research) and a small number will have research-intensive mandates. This is a much more developmental, constructive way of address-ing the differentiation issue since it addresses the issue of access at the same time – providing coherence in dealing with the demand-supply issue and the construction of a world-class university, whatever that may mean.

Attempts to secure the transfer of successful students from the FET colleges into the universities have been ongoing for more than ten years – with very limited success. In desperation, the Director-General of the Department of Higher Education and Training has written to all South African vice-chancellors to speed up this process. This is articulation retrofitting. Notwithstanding the existence of the NQF and the ladder of qualifications that populate it, the process of articulation depends on the development of a policy, funding and procedures infrastructure and the construction of processes to ensure the articulation of curricula.

The model described in this article will have a chance to succeed if and only if articulation is built in at the very outset. Articulation will have to be institutionalised in the sense that pathways for students in the two-year colleges either into employment or into higher education will be clearly articulated. The issue of articulation is fundamentally about curriculum articulation and has to reach beyond the precepts of the National Qualification Framework and probe the way in which what is taught at the two-year campuses fits with what is taught at the senior campuses. This will be one of the core functions of the University Senate. Perhaps more importantly, the senior campuses cannot disengage from this project because these two-year campuses will be extremely important student pipelines for them. Articulation will be the norm rather than the exception.

The successful operation of this type of differentiated/articulated model depends on there being sufficient capacity in all of its parts for the system to work. The Department of Higher Education and Training has instituted a significant programme of capacity development activities to improve the performance of the existing FET colleges and there is no doubt that this will have an impact in time. The development of a single system will provide an impetus to this. But there will have to be new, innovative approaches in the development of this capacity, at least in the short-term.

With respect to teaching, staff development programmes will have to be instituted for the long-term sustainability of the system but we can also contemplate the possibility of having some level of co-teaching going on, as a way to build capacity. Another, perhaps lightly more risky approach but one that may present interesting options, would be a requirement of all full-time masters and doctoral students at KZNU –as part requirement of their studies – to spend at least a quarter every year teaching at a two-year campus.

This has the potential for a win-win situation: these students will be paid, it will also give them a track record and hold them in good stead as an internship and this may contribute partly to addressing the capacity issue. If 10% of the students at KZNU are postgraduate students then about 11,000 postgraduate students could be drawn upon to teach on programmes at the two-year campuses.

One of the most exciting prospects would be the development of a single Centre for Postgraduate Studies that would coordinate postgraduate programmes for the entire system. What this would mean is that for the design and offering of programmes and for supervision, the University could draw on the best people in the KZNU system to design and teach on them irrespective of whether they are on a two-year or a senior campus. This will help to improve the quality of staff at the two-year campuses since it would not be necessary for highly qualified staff to be at the research intensive campuses for them to participate in postgraduate education. The students would have to be at their home campuses, attached to their laboratories or connected with research groups. This says to young academics it doesn't quite matter which campus you are at, you are, if you wish to be, a member of the research faculty at KZNU. This is not very different from the way that The Graduate Centre works at the City University of New York, except that this institution has a resident professoriate.

Conclusions

This article does not purport to present a blueprint for a new arrangement of higher education. It suggests that *if* there is a desire to address the issue of massification then there would have to be a very serious review of both the internal and the macro-structural inefficiencies of the post-school education and training system as currently exists.

In terms of the internal inefficiencies the suggested system may contribute directly to improving efficiencies by providing many students with two years of formative tertiary education in teaching intensive institutions as part of their post-school education. This will provide these students with access to the labour market or to higher levels of education.

The urgency with which these issues have to be dealt with may depend on the growing disjuncture between the supply and demand of higher

education and the size of the political challenges that may flow from this. A technology solution by itself will not solve this issue since the conditions for their application are far from optimum. One simple example of this is the cost structure of bandwidth. And depending on the entrepreneurship of for-profit private providers won't solve this problem either because of the cost structure of that kind of provision and the inability of students from poor backgrounds to pay for their studies.

This model will contribute by deliberate design to improve the cost structure of public higher education by righting the inverted pyramid. Some fairly complex economic modeling of the new structure will be required to assess its impact on access in terms of numbers. Just as importantly, the construction of such system will contribute enormously to affordability of post-school education for most students. It will allow many to stay at home while studying.

The argument presented here is that if the issue of massification (as process) is one that is resonant with the sociopolitical and economic imaginations of the South Africa then this may well require an approach that looks at the structural reshaping of the post-school system (at a fundamental level) rather than rearranging the existing institutions and institution-types.

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