# University World News: Special Africa Edition: Issue 01

This is the first special Africa edition of *University World News*, an international online newspaper dedicated to providing coverage of higher education. It is sponsored by the Cape Town-based Centre for Higher Education Transformation (CHET), a non-profit agency that mobilises trans-disciplinary skills for tertiary development projects, coordinates a network of higher education researchers and provides a forum for dialogue across Africa.

The purpose of these *University World News* special Africa editions, to be published quarterly, is to investigate issues and developments of importance to tertiary education in Africa, and to generate and disseminate information about them. While the focus is on Africa, and especially South Africa, international perspectives are included and the issues interrogated are of relevance to many countries in the developing and developed worlds.

## Differentiation in South African higher education

In late 2007, the Centre for Higher Education Transformation, as part of its 10th anniversary celebrations, hosted a seminar in Cape Town on differentiation in African tertiary education – or more accurately, the lack of it. This is a huge problem, hampering human development and preventing access to and the production of the range of skills across a variety of fields, types and levels that the continent needs to support its rapidly growing economies.

*A single, coordinated and differentiated post-secondary education system?* was the title of the seminar. It was the latest in a series of dialogues facilitated by CHET with the main aim of "continuing the debate about what the basic criteria and indicators should be for developing system differentiation that is acceptable and sound from academic, economic, political and social perspectives". 'Differentiation' is the process by which new entities emerge in a system, in this case higher education, which leads to greater diversity.

CHET director Dr Nico Cloete pointed out that post-apartheid South Africa has a far more coordinated post-school system than before, particularly in terms of enrolment planning. "But it also has a more homogeneous system in terms of mission and vision, with the main form of differentiation being institutional inequalities rather than different functions and choices."

The first session investigated diversity and differentiation of higher education systems and "the vexing issues of vertical versus horizontal and institutional versus programme differentiation," as Cloete put it. The second session looked at a post-school higher education sector – a crucial topic that has been silenced in the heat of the differentiation debate within the university sector. Knowledge divides were probed in a session on the curriculum in South Africa's new 'comprehensive' universities, which combine formative and career-focused education. The last session discussed the use of performance indicators for different purposes, including promoting differentiation in South African higher education.

The synopses below lead to articles, written by *University World News* editors Karen MacGregor and Geoff Maslen, that summarise the proceedings of the CHET seminar.

## DIVERSITY AND DIFFERENTIATION

## Higher education homogeneity on the rise worldwide

Tertiary systems around the world have becomes less diverse and differentiated in recent decades, studies have shown. And despite a desire among many states to increase diversity within higher education, a combination of "strict and uniform government policies" and the ability of powerful academic communities to defend their norms and values, are largely to blame for growing homogenisation. This is bad news for higher education, said comparative education professor Frans van Vught of the University of Twente in The Netherlands.

But pressures from government regulation do not necessarily have to be mechanisms for homogenisation, said van Vught in a presentation to the CHET seminar titled *Diversity and differentiation in higher education systems*\*. Government policies can also help to maintain existing, formally regulated levels of diversity by containing academic conservatism and-or the tendency for lower status institutions to imitate the behaviour of prestigious universities.

Van Vught defines differentiation as "a process in which new entities emerge in a system", in this case higher education. The concept should be distinguished from that of diversity, which indicates the variety of entities within a system. "Differentiation is the process in which the diversity of a system increases". His focus is at the level of systems rather than universities or their programmes. Thus van Vught is concerned with 'external diversity' (differences between institutions) rather than 'internal diversity' (differences within institutions).

There are plenty of arguments in favour of diversity and differentiation, which have been strongly associated with the positive performance of higher education systems, said van Vught. And many of the arguments are "highly relevant" to higher education policy-making.

First, it is contended that a diversified system improves access for students with different educational backgrounds and achievements. Where the performance of institutions varies "each student is offered an opportunity to work and compete with students of similar background. Each student has the opportunity to find an educational environment in which chances for success are realistic," he said.

Second, a diversified system enables social mobility by offering different modes of entry into higher education, multiple forms of transfer, and upward as well as 'honourable downward' mobility. Third, diversity is said to meet the needs of the labour market by creating the growing variety of specialisations that are needed for economic and social development.

Fourth, differentiation and diversity serve the needs of interest groups by allowing many their own identity and political legitimisation. Fifth, they permit "the crucial combination of elite and mass higher education". Mass systems are more diversified than elite systems as they absorb a heterogeneous clientele and try to respond to a range of demands from the labour market.

Sixth, diversity is assumed to increase the effectiveness of institutions. In 1973, the Carnegie Commission suggested that specialisation allows institutions "to focus their attention and energy, which helps them in producing higher levels of effectiveness". Finally, diversity is said to allow low-risk experimentation, as it enables institutions to assess the viability of innovations created by others without necessarily having to implement them.

Diversified higher education systems, said van Vught, are thus "supposed to produce higher levels of client-orientation (regarding the needs of students and of the labour market), social mobility, effectiveness, flexibility, innovativeness and stability".

Many governments have designed and implemented policies to increase diversity in higher education, but they do not always work. It appears, he said, that "diversity and differentiation are still only partly understood."

Van Vught analyses the behaviour of 'actors' (largely organisations) in higher education systems to explain social phenomena like differentiation. He also draws on classical studies, such as Charles Darwin's *Origin of Species* (1859), which argued that diversity results from an undirected, random process of adapting to environmental circumstances, and the social sciences theories of Emil Durkheim and the structural-functionalist, T Parsons.

Looking more recently, he probes organisational theories such as the Darwinian 'population ecology', which looks at processes of competition among diverse organisations for limited resources. The 'resource dependency' perspective argues that organisations are dependent on their environments but also able to influence them. 'Institutional isomorphism' stresses that to survive, organisations adapt to the existence of and pressures from other organisations in their environment, and react similarly so come to resemble each other.

Among influential studies on diversity and differentiation, van Vught said, some claim that higher education systems are driving towards differentiation and increasing diversity while others argue that they are characterised by 'de-differentiation' and decreasing diversity.

Some scholars have argued that there is a drive towards differentiation because of the emergence of new functions or the growing complexities of bodies of knowledge and an increasingly diverse student body and labour market, he explained. Others have contended that higher education systems are 'de-differentiating' because of imitating behaviour by low status institutions, centralised and uniform government policies, or academic conservatism.

Van Vught's own theory, starting from the 'open systems approach' in the social sciences, sees higher education systems as comprising individual organisations embedded in an environment that includes the social, political and economic conditions within which they need to operate.

His first assumption is that institutions in an open system receive inputs (students, faculty, finances and other resources) from and produce outputs (graduates, research, results and advice) for their environments. To survive, institutions compete for a continuous and adequate supply of resources and a "resource niche". Since there is usually a resource scarcity, only the fittest survive. "The environment acts as the critical selector."

Some scholars have argued that the diversity of organisational forms is proportional to the diversity of resources and constraints in their environments. Competition for scarce resources causes competing organisations to become similar and eliminates (dissimilar) weaker organisations. "The result is an increase of homogeneity," he said. 'Institutional isomorphism' theory argues that organisations respond to uncertainties by mimicking the behaviour of successful organisations.

Using these insights, van Vught proposes, first, that the level of uniformity or variety of the environment of an institution is related (by means of its adaptive behaviour) to the level of diversity in a higher education system. The greater the level of uniformity in environmental conditions, "the lower the level of diversity of the higher education system."

A second proposition, focusing on the relationship between organisational behaviour and (de)differentiation, is that the larger the influence of academic norms and values in a higher education organisation, the lower the level of diversity of the higher education system.

Processes of differentiation and de-differentiation are thus explained by "the combination of (external) environmental conditions and (internal) organisational characteristics".

Van Vught's theory is borne out by the few empirical studies that have been conducted on diversity and differentiation in higher education.

One forthcoming analysis of 10 higher education systems (Huisman, Meek and Wood) found that the size of a system (the number of institutions) "does not necessarily imply a high level of diversity". Also, it appeared that government regulation "may help to preserve a formally existing level of diversity in a higher education system, but that government initiated merger operations bring about more homogeneity rather than an increase of diversity," he said.

"They suggest that legally mandated boundaries in higher education systems (as for instance in legally regulated binary systems) are preserving the existing level of diversity, but that governmental policies that offer more autonomy to higher education institutions encourage these institutions to emulate the most prestigious ones."

Studies of US and European higher education systems have shown that although they have grown and changed, differentiation has not increased – higher education used its greater resources to replicate existing organisations. "In fact, processes of de-differentiation were predominant," said van Vught. Also, the influence of especially academic professionals has been substantial, enabling preservation of the status quo.

However, he concludes, the theoretical framework also suggests other possible outcomes. "When the environmental conditions are varied and when the influence of academic norms and values in a higher education institution is limited, the level of systems diversity may be expected to increase," van Vught concluded.

**<u>Reference</u>**
Huisman J, Meek L and Wood F (forthcoming) *Institutional diversity in higher education: A cross-national and longitudinal analysis*.

* Frans van Vught's full paper on the University World News site


## Expansion in Africa delivers more of the same

The expansion of higher education in Africa has not been accompanied by differentiation resulting, broadly speaking, in more of the same rather than greater diversity in types of institutions and learning, according to University of Nairobi professor Njuguna Ng'ethe. Countries need to tackle this problem if higher education systems are to improve access and produce the variety of skills that economies need.

Ng'ethe, a former member of Kenya's higher education commission who is currently with the Institute of Development Studies at the University of Nairobi, is conducting a study for the World Bank investigating higher education systems in 12 African countries – and also, for comparative purposes, in Korea, Singapore, Chile, the United Kingdom and France.

The still-to-be-published study, described at the CHET seminar, is concerned with the related issues of differentiation and articulation. There are tensions between the two, he said: "We want differentiated higher education, but the more a system is differentiated, the more difficult it is for institutions to talk to each other and articulate."

The areas that Ng'ethe and colleagues have probed include curriculum and teaching practices, types of courses and qualifications, the mandates and other characteristics of institutions, state regulations, financing and quality assurance.

One finding is that there is more knowledge of and policies on differentiation in Africa than there are on articulation. "However, both are at a very early stage in most African countries. They have not been given systematic attention."

People talk about the relationship between universities, polytechnics and other forms of tertiary institutions, but that is about it. "To a large extent, therefore, university systems have been left to their own dynamics: there is often little direction from the centre," said Ng'ethe.

Also "it is not clear whether there are different types of institutions or similar institutions with different names. An institution might be called a university of technology, but the curriculum is not very different from another type of university. Courses may have different names, but their content can be virtually the same."

One of the reasons why there has been more expansion of higher education than there has been differentiation, Ng'ethe said, is because African governments have reacted to societal pressures for access to higher learning. "Higher education experts might call for differentiation, but there are not compelling societal pressures for it."

While African higher education systems have built more and more universities, they have not been as concerned as they should have been about quality assurance, or about links between universities and skills and economic needs. "That is a major problem," he warned.

When differentiation has occurred, it has taken different forms.

Political pressures have driven one form of differentiation – governments have responded to calls to create universities in regions where there was previously no provision.

"We are not sure about the extent to which physical decentralisation results in differentiation. But we do know that institutions must respond to the particular problems of a region, and so by default there must be some differentiation by region, and it is welcome."

Off-shore providers – a big phenomenon in many African countries – are, "on the face of it, providing some differentiation by offering degrees from their countries". However, foreign institutions often provide courses in popular, money-making areas like MBAs, information technology or communications, that are not very different from existing programmes.

"Our hypothesis is that overseas universities are not driving a high level of differentiation."

Institutional reforms are often linked to the market. Universities are increasingly offering market-related courses, and so there is a proliferation of market-driven courses. But again, they are often in popular areas and are similar to what is already on offer. "Thus, only limited differentiation is coming from the market."

Industry too is not a major player when comes to differentiation, according to Ng'ethe – but ought to be. "A few industry players are becoming involved in curricula, especially with polytechnics, but they are not driving differentiation."

Funding is a major inhibitor. "There is limited differentiation if all universities get funds from the same government kitty. Even more important is the effect of undifferentiated funding formulae in the context of low levels of regulation of differentiation," he added.

In most African countries, higher education funding is based on total student enrolment. "An institution might start out specialised, but in a context of low regulation it is free to add other disciplines. And because funding is based on enrolment, the institution may be tempted to

add other courses which are cheaper but popular, with an eye to increasing enrolment. This defeats the whole purpose of differentiation," said Ng'eth.

African governments need to change policy to place greater emphasis on innovation leading to more differentiation." A previous study by Ng'ethe found that there is innovation in African universities, "but it is not driving differentiation and it is not being used as a criterion for funding".

There is also the issue of 'isomorphism', with universities becoming more and more alike. "African countries start out with one university that becomes the 'mother' of all universities, and others tend to copy it, so there is not much differentiation," he said.

Uniform governance is yet another a problem. Institutions are established in the same way, under similar laws that do not allow for differentiation in governance mechanisms.

There is a tendency in Africa, as elsewhere, to transform polytechnics into universities, said Ng'ethe. "We spoke to government ministers about this, and their response was that they hope but cannot guarantee that polytechnics will remain technical institutions." At the same time, universities are experiencing 'vocational drift'.

So higher education sectors that are currently differentiated, are becoming less so.

The study will conclude, Ng'ethe said, that where there is differentiation in African higher education, it is horizontal (a variety of knowledge fields) but not vertical (a variety of different types of institutions).

While national policies are beginning to respond to the need for differentiation, a great deal more work needs to be done – including on the effects of the expansion of higher education on differentiation and quality.

Finally, he said, outside of South Africa "we need more debates on the 'size and shape' of higher education in Africa so that when differentiation takes place, it happens within a well understood national framework for higher education. That seems to be what is missing."


## Competition drives costs up and diversity down

Increased competition between universities and the 'reputation race' has not led to greater diversity, as many governments hoped. But it is creating hierarchical differentiation based on inequalities in higher education systems, according to Professor Frans van Vught of Holland's University of Twente. Market forces have resulted in a huge increase in the costs of higher education with serious consequences for students and for universities.

Changes in public policy resulting in increased competition between universities might lead to a number of unintended consequences, Van Vught said in a paper delivered to the CHET seminar titled *Diversity and differentiation in higher education systems*\*. One of these was that the total cost of higher education appeared to be growing immensely.

Van Vught said that the 'reputation race', triggered by greater competition between institutions, implied that universities were in constant need of more resources. "They need these resources to recruit better staff, to offer more study grants, to upgrade their facilities, to improve their PR, etc...It stems from the drive to engage in the academic reputation race."

Studies in America have shown that per-student spending between 1980 and 2000 jumped by 62% at public universities and more than double that at private institutions. Although participation rates have grown and students have certainly benefited from these increases in spending levels, van Vught said the private costs of higher education had gone up dramatically – nearly doubling in real terms from 1978 to 1996.

Countries that follow the US example of increasing competition in a system where reputation is the major driving force, can expect similar cost explosions, he warned. The shift of costs from public to private sources implied that the social returns of higher education were increasingly overshadowed by the private benefits: in effect a privatisation of the system.

A second unintended consequence appeared to be an increase in wealth inequalities among institutions. Universities are stimulated to compete and to develop specific roles and profiles, to relate to specific stakeholders and to respond to regional needs, yet the increase in competition leads to greater inequalities because there is no 'level playing field'.

Van Vught said the reputation race worked out differently given different levels of resources: the higher these levels were, the more an institution would be able "to climb the ladder of reputation". Universities could only hire the academics whose salaries they could afford – but they could also only charge the tuition fees that are justified by the level of their reputation.

"The reputation race is fuelled by an insatiable need for funding. Richer institutions are more easily able to increase their reputation than poorer institutions," he said. "And this process is self-reinforcing: as the race goes on, the wealth inequalities and the differences in reputation tend to increase. The result is the establishment and strengthening of institutional hierarchies. Increased competition thus creates hierarchical differentiation in higher education systems."

A third unintended consequence arising from this was greater social stratification of students, van Vught said. Highly reputable institutions tried to enrol high-ability students and to achieve this, they used high-tuition and high-aid strategies to attract and select students who were the most talented and whose enrolments boosted their prestige.

This led to a social stratification based on merit. Higher education systems were becoming more stratified by academic ability, and both students and institutions acted in such a way that a meritocratic stratification was produced.

In America, the price war favoured already advantaged students while those not so well off or less talented had become victims of this development, van Vught said.

"Cost explosions, institutional hierarchies and the social stratification of the student body are not necessarily the consequences that political actors have in mind when they design the public policies that should stimulate higher education institutions to become more responsive to societal needs," he added.

"They also are not the consequences that are foreseen when higher levels of external diversity are stimulated. They are, however, possible effects of the introduction of an increase of competition in higher education systems."

Contrary to popular opinion within government, van Vught said that the more autonomy higher education institutions acquired, the more they would tend to engage in the 'reputation race'. He said public policy-makers should be aware of these dynamics and look for more effective ways to create contexts that could stimulate the application of knowledge and the creation of more diversified and differentiated higher education systems.

The recent popularity of world university rankings appeared to amplify the higher education reputation race, van Vught argued. The two main ranking schemes stimulated policy-makers and universities to "try to conquer higher positions on the global ladders of institutional reputation".

But because they largely tended to favour traditional academic performance particularly in research, the rankings led to an increase in mimicking behaviour and hence to more homogeneity, rather than diversity.

Van Vught said that to increase institutional diversity and differentiation, different ranking instruments were required so different forms of institutional performance could be compared. These should consist of multiple ranking instruments that allowed for inter-institutional comparisons according to the category or type of institution.

"In order to create higher levels of diversity in higher education systems, we therefore need to develop typologies of higher education institutions. In these typologies (or classifications) the diversity of institutional missions and profiles should be made transparent, offering the different stakeholders a better understanding of the specific ambitions and performances of the various types of higher education institutions," he concluded.

"The emergence of the discussions on rankings and typologies shows that diversity and differentiation are concepts that appear to remain relevant in the future contexts of both higher education policy-making and institutional management."

Better understanding of these concepts and systematic, empirical investigations would be crucial to enable the design of effective policies and successful institutional management strategies in higher education.

* Frans van Vught's full paper on the University World News site

## A POST-SECONDARY SECTOR

## Distinctions blur, steering differentiates

Higher education worldwide is transforming in ways that could increase differentiation, contends the University of Oslo's Professor Peter Maassen. Traditional distinctions – between universities and colleges, academic and professional, rural and urban – are being replaced by sets of indicators and standards used by governments and agencies to steer tertiary systems. Impending higher education reforms in Norway are likely to opt for a model that stresses differentiation within rather than between institutions.

Maassen is one of a 12-member National Commission on Higher Education charged with making proposals regarding the structure of higher education in Norway for the coming 20 years. The Commission's just-published report, which he said would suggest moving change dynamics from the system to the institutional level, will be used by the Minister of Higher Education and Research to inform a White Paper to go before Parliament later this year.

"Higher education is in a state of institutional transformation and flux", said Maassen in a presentation to the CHET seminar titled *The Norwegian Commission on Higher Education: Beyond university/college, academic/professional, and urban/rural distinctions.*

The nature of institutional change is not 'business as usual', an autonomous internal process of incremental reform, but involves fundamental transformation because "the legitimacy of higher education's mission, organisation, functioning, moral foundation, ways of thought and resources are being doubted and challenged," he said.

"The traditional pact between higher education and society is deemed to be no longer valid, and there is not yet a new pact. This is to a large extent caused by far-reaching change processes in the socio-economic and political environments of higher education institutions. In addition, many changes taking place within institutions are a result of internal, intra-institutional, and intra-disciplinary processes and decisions," Maassen argued.

A pact – as opposed to a contract based on continuous calculation of expected value by self-interested authorities, external groups, staff and students – would entail a long term cultural commitment to and from higher education, a system founded on its own rules of appropriate practices, beliefs and resources but also validated by the society in which it is embedded.

"In Norway, this concept is relevant because the country sees higher education as a public responsibility, not that of the market," he added.

"In Europe, governments are not necessarily seeking more intervention but different kinds of intervention. In many European countries market steering was advocated, but there is a growing realisation that higher education is a state responsibility and that governments should set frameworks for it. Part of the debate is what kind of frameworks promote the development of differentiation, but also ensure adherence to high standards."

**Norway's post-school sector**

Like most European countries, during the 1960s Norway built a college sector parallel to universities to provide professional higher education. This development was related to the rise of 'third generation' (welfare state) professions such nursing, teaching, administration and ICT, and also to the need to provide higher education to non-traditional students.

As happened with earlier professions, 'third generation' professions were initially offered by 'non-universities' and had to grow through a process of becoming institutionalised.

"There were problems with status at first, but the sector experienced rapid growth and became an example of highly effective system-level differentiation," Maassen said. "Among other things it allowed large numbers of non-formal students to enrol in a system that would not have been possible if programmes were not available".

Problems began in the early 1990s when Norway allowed, then later stimulated, a gradual overlapping of the higher professional education sector with the university sector. There had been a social upgrading of 'third generation' professions, they had become institutionalised in colleges and there were no longer enough places for students.

Also, there was a need for research into professional practice, which universities were not interested in, so colleges were allowed to conduct research. Finally, institutional, regional political and private sector ambitions came into play: "Every region wants to have its own university," said Maassen.

By 2000 the 'European dimension' of higher education had grown in importance and many colleges were conducting research. In 2002 the Bologna process – which Norway was quick to implement – led to an equal degree structure for the country's four research universities and 26 other institutions.

Professional colleges were allowed to develop doctoral and masters programmes, a National Quality Agency was in place, and space opened up for colleges that could fulfil specific conditions to upgrade to university status.

**Change drivers and differentiation**

Most higher education systems have experienced sets of 'change drivers' that have shifted them away from traditional structures, regulatory frameworks and practices, Maassen said.

Internationally, change has blurred the boundaries between research universities and 'non-universities' such as colleges and polytechnics, and so steering differentiation can no longer be done through this traditional distinction. The word 'university' now covers a diversity of institutional types.

There are expanding numbers of students in professional programmes in all types of institutions, and cooperation across traditional sector and country borders is growing in importance, as is the 'third mission' of institutions: service and innovation. "Politically higher education has become more important, but less special," Maassen said.

In Norway, reform has placed pressure on professional colleges to aim for university status, and there has been fragmentation of research and postgraduate training, spreading this funding across too many institutions. There has been 'academisation' of bachelor-level professional degree programmes while rural (regional) higher education and the need to strengthen research infrastructure "have become major political issues".

**Two alternative models**

There are four major differentiation challenges facing Norway today, Maasen explained.

First, the move from four to seven universities "with many more to come". Second, there are now 18 institutions offering PhD programmes. Third, serious quality problems exist in some professional degree programmes. Finally, there has been a policy of 'spread regionalisation', massive migration of young people from rural to urban areas, and a shortage of senior academics in colleges.

Two possible solutions to differentiation, among other things, have been investigated by the National Commission on Higher Education and proposed for Norway, said Maasen:

Model 1: Regional universities

The 'regional universities' model uses geography as its starting point and stresses intra-institutional differentiation. All institutions in a region would have to merge into one regional university integrating the traditional distinctions that steered differentiation – urban-rural and university-college.

Regional universities would have three governance layers, minimum numbers of students, a traditional university and college mission, all PhD programmes would need to be located in research schools, and higher education would be steered through three-year agreements between universities and government.

The regional dimension is important in countries like Norway. All institutions have a major role to play in their local and regional labour market, most graduates start work in the vicinity of their alma mater, and "discourse around the knowledge economy gives higher education institutions a very central place in the development of new knowledge infrastructures".

<u>Model 2: Differentiation</u>

This model has differentiation as its starting point and change dynamics as its focus. It could include the following features.

- All institutions would need to fulfil minimum requirements with regard to size and quality, and some would have to merge so as to be eligible for public funding.
- There would either be two main types of universities – research-intensive and applied-professional – or all institutions would be allowed to use the name university.
- All institutions could develop doctoral programmes but under strict approval demands and only if they were organised in research schools.
- Differentiation in the nature of PhD and masters programmes would be stimulated.
- All institutions would develop a profile and mission based on dimensions such as research and teaching orientation, levels of study, relationships with industry, contract income, international relationships and regional role.
- The profiles would form the basis of a multi-year agreement between the Ministry of Education and each institution, including indicators such as student numbers, through-put rate, the number and nature of graduates, and research output.
- An independent body would evaluate the profile of each institution, rewarding development according to profile and 'punishing' profile-drift.
- The Ministry would steer the sector on the basis of system-level issues and needs.
- Funding of teaching would be the same for all institutions, but funding for research would be differentiated.

**Conclusions**

While the regional model encourages differentiation between institutions and programmes, the differentiation model – probably the more likely to be adopted – stresses differentiation within institution and employs indicators to steer the higher education system. Maassen said that while neither model had consequences for funding of teaching, both had implications for research funding and "imply a need to further professionalise institutional management".

Maassen concluded that Norway is too small to have world class research (regional) universities, and would be better advised to aim at achieving high quality in existing research and teaching programmes – and to send its best students abroad. By contrast, under the differentiation model everything would be possible, "in a positive as well as a negative way".


# Further education expansion to improve diversity

Across Africa, growing numbers of young people are finishing school but there has not been a corresponding increase in university students: fewer than 4% of young Africans enter higher education. In South Africa, expanding further education and training is seen as a way to open access to post-school education, raise student numbers, plug a skills gap – and improve diversity in the tertiary system. The plan is to enrol a million further education students by 2014, said Penny Vinjevold, a deputy director in the Department of Education.

As elsewhere in Africa, South Africa's school system is increasingly retaining young people, with around one million children in each grade. But there is a sharp drop-out rate in the last few years of school, the 17 to 19-year age group. The government is hoping to attract this 'lost' group – as well as matriculated school leavers who do not qualify for university or are not interested in university programmes – into further education and training (FET).

The FET sector in South Africa is smaller than in most other countries. The school sector is the biggest and then higher education, which was expanded under apartheid and now has 740,000 students. "It will take time to catch up and balance the system," Vinjevold added, in a CHET seminar presentation titled *Developing a South African college system: A secondary sector for South Africa.*

In terms of differentiation, the idea is that an expanded and improved FET system will provided the greater range in type and level of courses, qualifications and graduates that the country needs. Not only to raise the educational level of its populace but also to plug a yawning skills gap that has been identified as one of the greatest obstacles to continued economic growth.

The National Qualifications Framework, which covers all levels of education, was structured in a way that closely related FET and school-level education – with the last years at school seen as further education. "But it became clear that South Africa could not continue along this route," Vinjevold said, including if it wanted a more differentiated education system.

South Africa previously had more than 200 mostly small and under-resourced colleges. They represented a wide range of institutions delivering everything from technical, vocational and trade qualifications to higher education, but produced too few graduates. In 2003-04 they were merged into 50 larger colleges offering further and higher education at 230 sites.

The government made R2 billion available to pay for a restructured, strengthened and improved FET system, although this sum is considered insufficient by many. Teaching, nursing and agricultural colleges were incorporated into universities, leading to concerns about loss of differentiation in these key skills fields.

Under a FET College Act promulgated in 2006, colleges were separated from schools and became post-secondary. The Act provides for expansion of the college sector and aims to encourage a flexible and responsive FET system, as well as to promote accountability and guide public funding, governance, appointments, registration of private institutions, quality assurance and transitional arrangements.

Curriculum development has also driven transformation in the FET system, which in the past mostly provided a theoretical grounding for people acquiring vocational or trade skills. The government implemented changes that were aimed at tackling a huge problem of youth unemployment, and took into account international trends.

Interestingly, said Vinjevold, different political perspectives were unequivocal that students "require not only skills that are applicable to work but also a knowledge base that will enable them to adapt as products and production methods change".

Also, education and training are rapidly becoming inseparable, especially as the notion of a job for life is being replaced with lifelong learning. Employers said they wanted good communication, problem solving and informational technology skills. In developing a new curriculum, these needs translated into the fundamentals of reading, writing, calculating and information technology, and into a combination of conceptual and applied knowledge.

The government introduced a national certificate examination in each of 11 sectors identified as priority skills fields, each consisting of seven subjects including three that are compulsory – language, mathematics or mathematical literacy, and life skills – and four vocational subjects with both theoretical and practical components.

In 2008 there are 63,000 students enrolled on these national vocational certificate programmes, and the plan is to raise this number to 100,000 by 2010.

The idea, said Vinjevold, is also for FET students to gain access to pre-university training, even as they are doing vocational training. "Whether you're a baker or a welder or whatever, you need an education. That is what the modern world demands of us. We've tried to meet this demand by offering the extra subjects which aim to give a general education, although practical vocational training courses are also available as stand alones."

While curriculum development has introduced greater diversity of learning within the priority fields, concerns have been expressed that nationally conforming programmes could reduce differentiation, along with government funding of (low fee) priority programmes that will likely siphon students away from the wide range of other courses that colleges offer.

Joy Papier, of the University of the Western Cape, argued that "the same issues affecting differentiation in the higher education system are going to affect FET colleges because policy and funding are moving toward a narrowing of the focus of colleges, rather than differentiation of their potential targets".

A new funding system, starting in 2008, is programme-based and depends on student numbers. The act requires colleges to report on planned enrolments. FET funding, said Vinjevold, now "responds to the strongest and best colleges, especially as they relate to recruiting, throughput and placing of students".

The state provides 80% of funding for priority programmes, so no student on a government-sponsored programme pays fees of more than R5,500 – considerably alleviating the problem of finance as an obstacle to student recruitment and retention. Colleges are free to run other programmes, funded from other sources such as fees. Needy students can get bursaries to offset fees: the government has allocated R600 million to the FET colleges Financial Aid Scheme over three years, starting in 2007.

While some colleges offer no higher education programmes, in others up to 40% of courses are at this level. And while some colleges only offer the national certificate, others have just 10% of students on them. So within the programme mix, Vinjevold said, there is diversity in the system.

"In next decade we will look at what the best programme mix might be." The challenge, she added, would be to ensure that "230 college sites offer a range and diversity of programmes to the million young people who need to be in formal further education and training".

## THE CURRICULUM DEBATE IN 'COMPREHENSIVES'

## Comprehensives – Straddling the knowledge and binary divides

South Africa's new 'comprehensive' universities are tasked with providing both formative and career-focused higher education, and they face enormous challenges – especially those that were created from mergers between universities and technikons (polytechnics) – said Trish Gibbon of the South Africa-Norway Tertiary Education Development Programme (SANTED). The result has been a shift from institutions that were differentiated from each other to ones that are similar but have a greater variety of programmes with different emphases. South Africa is in the process of 'de-differentiating' and 're-differentiating'.

Gibbon and Professor Angina Parekh, deputy vice-chancellor (academic) of the University of Johannesburg, outlined some of the hurdles faced by South Africa's six 'new generation' institutions in a presentation to the CHET seminar titled *The curriculum debate in comprehensive universities: Straddling the knowledge divide.*

Their focus was on two institutions that resulted from mergers across the binary divide: the University of Johannesburg (UJ), which combined Rand Afrikaans University and the Wits Technikon; and Nelson Mandela Metropolitan University (NMMU), which merged the university and technikon in Port Elizabeth.

Four factors produced 'de-differentiation' in post-apartheid South Africa, all of them driven by the government, Gibbon explained. First was the granting of degree-awarding status to technikons, which until then only offered programmes from certificate to advanced diploma level. Second was allowing technikons the right to call themselves universities of technology. Third, colleges of nursing, teaching and agriculture were absorbed into universities.

Finally, major restructuring of the higher education landscape post-apartheid saw mergers and incorporations – including of universities with technikons – that slashed the number of public higher education institutions from 36 to 23 (although no campuses were closed) and turned all of them into universities. Three categories of institutions were created:

- Eleven 'traditional' universities focussing on research and a mix of discipline-based and professional degree qualifications.
- Six universities of technology offering a mix of technological, vocational, career-oriented and professional programmes, mainly certificates and diplomas but also degrees.
- Six 'comprehensive' universities, combining both types of higher education.

"Re-differentiation is occurring internally within institutions, produced by mergers and campus incorporations, institutions responding to market needs by expanding the number and kinds of course, and commercial activities such as creating companies or market-related courses," Gibbon said.

Comprehensive universities are in the unusual position of offering a range of educational qualifications, from undergraduate certificates to postgraduate doctoral programmes, and a variety of different types of knowledge, from technological, vocational, career-oriented and professional to general formative.

But bringing together programmes from both sides of the binary line raises many questions. For instance, does the 'knowledge divide' run along 'vertical' qualification levels, as people progress through the education system, or between scientific and applied knowledge? And the 'knowledge divide' may not entirely correspond to the institutional binary divide.

Professor Joe Muller, of the University of Cape Town, argues that there is knowledge gained through doing, and knowledge produced through reasoning and learning general principles. There is never a clear division – there is always a mix – but the knowledge divide is found in relation to the proportions of each.

In comprehensives, there are a number of pressures to breach the knowledge divide.

One is the policy objective of articulation, said Gibbon. Articulation is unlikely between professional and formative programmes. "But there are areas of real overlap in some fields, such as business management, although it could be that they were on the same side of the knowledge divide and became separated. And there are other areas of dispute, such as

engineering."

Another pressure is student demand for transfer, as soon as different programmes are in the same institution.

Finally, there are ideological and status issues around knowledge. Technikon academics say there is little difference between a diploma and a professional degree in engineering, while university academics say there is an ocean between the two.

"We have statements like 'our kind of knowledge is equal to yours, but different' – it sounds like apartheid," Gibbon said.

There are, however, also pressures to maintain the knowledge divide. "One is the labour market's need for a range of skills levels in a variety of occupational fields – the need for differentiated programmes and qualifications," explained Gibbon. Another is the incompatibility of different types of knowledge.

Also, the recently published Higher Education Qualifications Framework pronounces that a diploma is not a step towards a Bachelor of Technology degree, which used to simply entail adding a fourth year onto a three-year diploma.

"It asserts that they are different: a diploma is a direct preparation for an occupation, not a trajectory towards a higher qualification, and that the purpose, complexity and orientation of a degree is sufficiently different that it cannot be attained through a single catch-up year."

The 'knowledge divide', Gibbon admitted, is a controversial topic. Indeed, some people argue that there is no knowledge divide at all – that it is an ideological construct related to power – while others say it is almost insurmountable.

"We keep reiterating that only way we can tell where the truth lies is by looking in detail at the curricula."

SANTED is hosting a collaborative project between UJ and NMMU to do just that. It is designed to assist comprehensives to develop new qualification structures and academic profiles. Pilot case studies are being conducted in 11 fields, analysing curricula content against the purposes of different qualifications on both sides of the binary divide, to see if pathways can be built between them.

Said Gibbon: "This work has begun to produce fresh ways of understanding the knowledge demands of qualifications that have different purposes and orientations" and more refined ways of understanding what properly constitutes a diploma or a degree in a particular field.

"Some of the studies have demonstrated that there is a real distinction between a diploma and a degree and that articulation possibilities are very limited. While there are common elements in the first year, from then on the paths diverge quite rapidly. So articulation is most properly positioned after first year, when a student can choose a diploma or a degree route."

A challenge for comprehensives is to construct full degree curricula, probably on the applied technology side of the technology divide, while not abandoning diploma provision.

"This is highly intensive, complex and time-consuming work," Gibbon concluded. Issues are unlikely to be resolved by application of knowledge principles alone, as there are far too many powerful interests around who are likely to shape outcomes. There are also greatly varying levels of understanding of what this is all about within institutions and among academics.

"So internally differentiated institutions present many challenges – at the level of strategic positioning, at the level of management, and critically, at the level of the curriculum."

## Comprehensive university reality fraught and complicated

The South African government's decision to create 'comprehensive' universities combining formative and career-focused education might have seemed like a good idea at the time. But the reality has been fraught and complicated, said Professor Angina Parekh, a deputy vice-chancellor at the University of Johannesburg. "The problem is that, having done mergers, there now isn't a very clear idea of what the institutions are and how they should deliver on their mandate. It has been left to universities to decide." Academic drift could threaten the programme differentiation that was to be a key advantage of 'new generation' universities.

The National Plan for Higher Education provided four rationales for comprehensive institutions, Parekh explained in a joint presentation to the CHET seminar titled *The curriculum debate in comprehensive universities: Straddling the knowledge divide*.

Comprehensive universities were created to: enhance access to a wider variety of courses with different entry requirements; promote articulation and student mobility between career-focused and formative courses; expand research opportunities by linking the applied research of technikons (polytechnics) to university research strengths; and, through their increased scope and capacity, respond better to regional needs.

But there are major obstacles on the road to achieving these goals, in the experience of two of South Africa's leading 'comprehensives', the University of Johannesburg (UJ) and Nelson Mandela Metropolitan University (NMMU) in Port Elizabeth on the east coast.

The two universities share a number of characteristics. Both are contact institutions created from mergers between a university and technikon, have a similar spread of programme offerings with no medical or dental school, and neither is research-intensive.

But Johannesburg is far bigger – it has 45,000 students against 25,000 at NMMU – and they are differently located, with UJ one of six universities in a small but populace province while NMMU is the only university in its region. And while UJ was created out of a strong university and weaker technikon, it was the other way around for NMMU.

How are comprehensive universities positioning themselves?

"We recognise that we're in an ideal position to recast ourselves in exciting and innovative ways. In UJ or NMMU-speak, the notion of a 'new generation' university is to be entrepreneurial and engaged," said Parekh. "But there are ambiguities. And while there is an ideal involved in being 'new generation', the reality on the ground is very different.

"We want to be different from traditional institutions because if we try to emulate them we run the risk of being second rate. Therefore we must position ourselves in an original way. The problem is that we don't really know what that means, and what the implications are of being a 'new generation' university in relation to students and the labour market.

"We want to play in the big league but hang on to technological and career-focused education and be accessible to students. How do we achieve that balance and, importantly,

can we be both? How risky is it, in relation to external perceptions and internal management, to straddle a vast array of different kinds of programmes?"

Regarding the student market, Parekh said the question was how to widen access but also attract students of exceptional talent. "We want high achievers on our physics and chemistry degrees, but we also have an obligation and a mandate to offer certificate and diploma courses. I'm not sure that we do that well."

Also, South Africa has an unsophisticated student market. Comprehensive universities worry that students do not fully understand them, and that they run the risk of losing strong students to other institutions. There has, said Parekh, already been a flight of Afrikaans students to Northwest University.

"We are struggling with how to brand ourselves in the marketplace. Do we produce technicians or mid-level careerists or high-flying professionals, or all of them but as master of none? We do not want to confuse the market, or it will simply move elsewhere."

The University of Johannesburg, a merger of two major institutions, is experiencing pressure from the market to describe exactly what it is. The market is not responding positively to the idea of comprehensive universities – "it wants us to be traditional".

In addition, South Africa's university funding formula favours research institutions, Parekh said. As a result, comprehensives do not have much option but to move towards becoming more research-intensive. "In reality, everything we do at UJ is trying to emulate research universities. We are making appointments towards research and innovation strengths."

This drift towards being a traditional university will undermine institutional and programme differentiation – and is also being encouraged, internally, by a reward programme that favours an elitist system, she added. While UJ has staff from both sides of the former binary divide, for academics to be promoted, they have to demonstrate research potential and meet requirements that are associated with traditional universities.

Further, said Parekh, comprehensive universities like UJ and NMMU have to grapple with diversity in their student and staff composition, differences in institutional culture and academic chauvinism. "University academics are very intolerant and sceptical of the ability of staff from the technikon sector to manage and lead the institution".

Mergers during the early 2000s created multi-campus institutions and, in the case of UJ and NMMU, campuses were formerly either part of a technikon or a university. Provision of formative and career-focused programmes have largely remained where they were before.

"The challenges we face are not just about values, culture and ethos, but also about organisational structures and arrangements that entrench historical divides. We want faculties to embrace both university and technikon programmes and staff, but the physical divide is still there, and removing it will require huge resources from the state."

Finally, another internal issue is straddling the knowledge divide. Comprehensives are still offering programmes the way they were previously offered by the different institutions.

These kinds of divisions – diversity between campuses in people, culture, programme types and physical location – support internal differentiation in comprehensives such as UJ and NMMU. But they are not what policy intended and do little to achieve the goals of improving access, promoting student mobility, enhancing research or responding to regional needs.

The dilemma for South Africa's 'new generation' universities is to find new ways to meet these goals and achieve a balance between formative and applied programmes and research without drifting towards 'traditional' provision and undermining differentiation.

## Hard programme choices for 'comprehensive' universities

South Africa's six 'new generation' universities, charged with straddling the binary divide, are battling to find strategic identities and to preserve their purpose. For these 'comprehensive' universities, a good place to start thinking about programme differentiation could be at the end – they need to ask "What kind of knowledgeable, qualified person is each programme trying to produce?" – said Professor Joe Muller, director of the University of Cape Town's Graduate School in Humanities. Hard choices will need to be made, to create institutional niches on the basis of intellectual competency.

'Comprehensives' are trying to find ways of mixing programmes in the same fields, such as engineering, that were previously offered by different departments with different 'academic' or 'vocational' focuses, at different levels and with different exit purposes.

"The real trick is that comprehensive universities preserve their purpose and that there isn't an inadvertent drift into becoming something else," said Muller. "The only way to combat structural patterns or tendencies like this drift, is via policy intervention."

In a talk, *Knowledge niches*, Muller argued at the CHET seminar that debate about differentiation seemed fatally divided. "Our analysis – our head – says 'convergence'. Our policy desires and our heart say 'divergence'.

"Our Darwinian urges say it's rational to converge on the adaptive trait, which is research-based. But something else tells us that if we go exclusively that route, it will be fatal. Our head emphasises constraint; our heart emphasises the possibilities of voluntaristic action and of changing mindsets. Somewhere between we have to recognise the constraints and the limited choices they bequeath to us, and then operate within those as best we can."

South Africa has opted for programme rather than institutional differentiation, and the two are quite different, he continued. "Institutions that merge have a unique chance to redefine their mission niche and strategic direction. What economists call 'path dependence' will exercise a strong brake, however, on what can be changed before we start to show 'morbid symptoms'. And I think a specific directed choice is necessary, otherwise institutions will begin to show these morbid symptoms."

What are the strategic options, Muller asked?

One of the choices comprehensive universities have is to follow Darwinian instincts and mimic other institutions. But which institutions should be mimicked? The question, he said, is complicated because hybrid types of courses are beginning to emerge, with third and fourth generation professions insisting on programmes that are tailor-made in a way not generally found in traditional institutions.

"But is there a brake on hybridity? Or does our future look like an increasingly individual one, with each institution choosing its hybrid mix, and becoming highly specialised?"

A second factor to consider is that programme differentiation is nothing new. Its history goes back to medieval universities, where two key rifts created knowledge divides. The first

division was between the liberal arts and the technical (applied) arts, which were excluded from universities until the 19th century, said Muller.

"The second division was located within the medieval curricula of liberal arts, between the two modal forms of medieval curriculum: trivium (arts of the inner, such as theology and literature) and quadrivium (arts of the outer, like science). So we see this knowledge divide started early, and it is one that runs deep."

There is a further well known, studied and acknowledged division in the literature between the 'pure' humanities and sciences and the 'applied' humanities and sciences as well as variations such as 'hard pure' and 'soft applied'.

"What all this foregrounds is something that institutional differentiation studies don't highlight – that the divisions in knowledge create different tribes with different tribal domains, *within* the same institution."

This is why Muller suggested that, when thinking about programme differentiation, the starting point for comprehensive universities should be the exit point – the qualifications and kind of knowledgeable person that a programme is trying to produce.

Leaving aside traditional universities (the 'pures') because "they still generally persist with a fairly standard pattern, moving from the bachelor degree up to the Phd," he said it would be worthwhile looking at programme channels consisting of old and some knowledge-based new professions (such as sports science), with different qualification routes, lengths and levels, and at general occupations, old and new trades, with long qualification paths moving up levels of certificates to advanced diplomas that enable registration for a degree.

The point for comprehensive universities, Muller said, was that there were often different programme mixes in the same fields with different orientations and levels and exit purposes: "In each of the adjacent programme streams, you get similarities. But they are different with differentiated purpose and differentiated knowledge combinations, and letting these drift into one another is what must be guarded against."

A further implication is that each comprehensive university is "highly advised to choose adjacent programme clusters". Trying to choose across programme clusters would "end up with a muddy institutional mission, sending mixed signals to students and to employers, and generally risking a loss of credibility.

"Equally comprehensives cannot have it all – they have to choose. If institutions don't choose they will be hollowed out from within. Effectively they will not be one institution, but many different institutions in one."

The choice, Muller concluded, should be made on the basis of intellectual competency. An institution should not spread itself too thinly. Rather, comprehensive universities should find a niche in terms of knowledge, enabling them to become niched institutionally.


## PERFORMANCE INDICATORS

## Institutional diversity, programme differentiation

In South Africa, differentiation in higher education is seen as a way of tackling challenges such as skills shortages and the needs for competitiveness, improved access and equity.

The country is aiming for institutional diversity and programme differentiation through state steering, said Dr Nico Cloete, director of the Centre for Higher Education Transformation. The government will set enrolment, performance and programme targets for the higher education sector based on national goals, and for universities based on their capacity.

In November 2006 in Paarl, CHET hosted a discussion between senior Ministry of Education officials and academic leaders on the sensitive issue of differentiation. Cloete said it was agreed to develop the ideas of institutional diversity (rather than 'vertical' differentiation) and programme (horizontal) differentiation, through state steering.

Under apartheid, institutional differentiation was achieved through a binary divide between universities and technikons (polytechnics) and also, unacceptably, by building institutions for different race groups – those for whites were well resourced urban, often research-oriented institutions and those for other races were poorly supported mostly teaching institutions, often in rural areas.

"It was differentiation through inequality," said Cloete in a presentation to the CHET seminar titled *Diversity and differentiation in the changing South African higher education landscape*.

Post-apartheid, major restructuring of the higher education landscape led to mergers and incorporations that dismantled racial and binary divides and slashed the number of institutions from 36 to 23, although no campuses were closed: institutions got bigger. Three institutional types were created: 'traditional' universities, universities of technology (the old technikons), and new 'comprehensive' institutions combining both types of education.

But Cloete is concerned that 'covert' differentiation based on inequality still exists. "This is unacceptable in South Africa, with its human rights and equity culture. We talk left, but act right. The longer that we lack the political will to talk openly about differentiation, the more we will allow inequality to continue or be exacerbated."

At the same time, dismantling the binary divide has reduced institutional diversity and academic drift is undermining programme differentiation. The country has responded by boosting a small further education system to create a stronger, bigger vocational post-school sector aimed at enrolling a million students within seven years – and by focusing on steering the higher education system towards programme differentiation.

The Minister of Education has the power to determine the size and shape of South Africa's higher education system, and of each institution. The Minister can decide what types and mix of programmes universities offer, and how many students they have.

The Department of Education has three connected steering mechanisms – institutional plans, approval of programmes, and funding.

In 2006 universities were asked to develop institutional profiles and plans outlining, among other things, the courses they would like to offer and at what level, as well as the numbers of students they would enrol, said Dr Ian Bunting of the Department of Education, in a paper titled *Performance indicators for different purposes*.

The process of negotiations between universities and government to approve institutional plans has started, with the latter bearing in mind national goals and needs – such as the imperative to alleviate areas of serious skills shortages – when deciding what the higher education system and individual universities' programme mixes should be.

"The driver for us is that a developmental higher education system must produce the high level personnel that he economy needs," said Bunting. "We are producing 120,000

graduates a year: all this is aimed at pushing that up to 150,000 and graduating more engineers, doctors and so on.

"At the institutional level, we are drilling down to find out who can contribute to national targets. If the need is for more masters and doctoral graduates, we look at where these are most likely to come from and encourage institutions to produce more."

One problem is that South Africa does not have a well developed national plan to tackle the skills crisis, making it difficult for higher education to determine exactly the number and kind of skills to develop.

Information and targets set in approved plans – for enrolments, types and fields of study, student success and graduation rates and so on, but not for staffing or funding – will enable the government to know exactly what programmes should be on offer. Its higher education management information system (HEMIS), which extracts student and staff data from each institution, enables government to ascertain whether universities achieve their plans.

Funding is linked to approved institutional plans, and allocations are based on research graduates and publication outputs, teaching outputs weighted by qualification level, and student numbers weighted by study fields and course levels, among other things. To ensure funding certainty among institutions, the Ministry works in three-year funding cycles.

There have been concerns about whether government steering through institutional plans and targets will encourage differentiation. Bunting firmly believed that the new model will indeed enable very different institutions to be forged.

For instance while the research-intensive University Pretoria will be allowed to enrol high proportions of postgraduates, the smaller and more teaching-oriented University of Venda cannot. The 'comprehensive' University of Johannesburg can have 7% of its students on masters degrees but, say, a third of its enrolments must be vocational.

"Universities cannot offer lots of high level degrees if they do not have good streams of undergraduates," Bunting said.

Professor Rolf Stumph, outgoing vice-chancellor of Nelson Mandela Metropolitan University, expressed concern that targets set for institutions did not take the differing quality of their students into account – top universities are able to attract the 'best' students:

"This is simply unfair, it is discrimination," Stumph said. He also warned that targets such as student success and graduate output rates had financial consequences. "The only way for institutions to survive is going to place pressure on standards."

SANTED's Trish Gibbon added that the funding formula directly rewarded postgraduate outputs, which would pressure all institutions to become research-intensive, undermining diversity: "Ultimately, everyone is going to work to get more money".

Bunting explained that except for graduation outputs, which impact on funding, there would be no sanction against a university for not reaching a target, and that current targets are based on actual institutional figures. The idea, he added, was to encourage universities to progress from their current situation and to track that progress.

"Differentiated targets are being set. We are not allowing institutional aspirations to override practical considerations. We are requiring institutions to be differentiated based on their capacity. I can't see how it can be argued that this is headed for homogeneity."

# Indicators for diversity

Performance indicators for South African universities have been developed by the Centre for Higher Education Transformation and they are starting to be used to inform government decisions about the higher education system and individual institutions, said Dr Ian Bunting of the national Department of Education. The indicators will be used to set different targets for universities – encouraging diversity in the sector – as well as to measure the performance of institutions over time and to hold them accountable.

Bunting and CHET director Dr Nico Cloete have been developing indicators for South African higher education since 2000. University councils can also use the information to ascertain the progress of the institutions they are entrusted to govern, Bunting said in a presentation to the CHET seminar titled *Performance indicators for different purposes.*

University profiles provide information on, among other things, actual and planned student enrolments by number, qualification type and field of study, student success and graduation rates, staff numbers, ratios, qualifications and research outputs, and university income and expenditure, income sources and costs per graduate.

Using the information, the government and institutions are able to establish a benchmark profile for each university and measure progress from there over time, based on mutually agreed targets.

"The government will assess a university relative to its target," Bunting explained. "If a university does not reach its target, it will be asked why and adjustments will be made. Once an agreement has been reached, the government can hold an institution to account.

"Differentiation comes in with the setting of different targets for different institutions," he said. For example, 'traditional' universities have higher ratios of research outputs than universities of technology, and this difference – or diversity – will be retained.

In his presentation, titled *Diversity and differentiation in the changing South African higher education landscape*, Cloete said: "We are now playing around with different uses for indicators – for planning, for governance, and for developing a 'new pact' for higher education."

Bunting used a leading research institution, the University of Pretoria, to illustrate how performance indicators will be used to facilitate government steering of higher education, and programme differentiation.

The Minister of Education has approved Pretoria's planned enrolment of 54,000 students by 2010. That university will grow by 4% between 2006 and 2010 – which is above planned systemic growth of 2.5%.

"Pretoria has been allowed to grow quickly because the government believes that it can cope," said Bunting. "The targets differ sharply between institutions. Some have a negative growth agreement regarding student enrolment, and will be given a safety net of funding to enable them to move slowly down to their lower student number target".

Also approved are Pretoria's plans to grow postgraduate student proportions to 29% of all enrolments, up from 19% in 2006, to increase enrolments in science and technology, and to

improve student success rates from just over the national target of 80% in 2006 to 84% in 2010, among other things.

The University of Pretoria's plan supports government goals to produce more graduates from quality programmes, especially in areas of skills shortage, and more postgraduates. "The targets are set and the Department of Education will annually monitor the university," Bunting said.

University profiles are based on data extracted from the Department of Education's national higher education management information system (HEMIS), which is itself obtained from the production data bases of each institution.

Data can also be extracted to compare universities with their peers in three groupings, by institutional category – such as university, university of technology or 'comprehensive' – by financial resources using the percentage of private income as the classifier, and by notional competitors, institutions that are regarded by each other as competitive or comparable.

The idea of peer groupings is to enable more refined targets and comparisons. The peer group analyses are based on six targets – student to staff ratios, staff qualification levels, average student success rate and average graduate output, staff research outputs (including postgraduate student per academic), and research publication units.

Concerns were expressed at the CHET seminar about whether the South African government's steering of higher education through institutional plans and performance indicators would encourage differentiation. The University of Twente's Frans van Vught worried that indicators might lead to less rather than more diversity "because they are all applied across the board, regardless of the character of the institution".

In Hong Kong, he said, universities were provided with different sets of performance indicators that they could choose in accordance with their missions and profiles. The emphasis was on comparison not with each other but with other international institutions having similar missions or profiles. Institutions were thus offered different policy contexts.

Cloete argued that qualitative as well as quantitative indicators needed to be employed: "If it is not in HEMIS, it doesn't exist. This is a serious problem in our context".

He added: "How useful can this set of data really be, given that indicators are to a large extent self-referential and that targets are not internationally benchmarked? We are doing a comparative study of seven institutions in seven African countries: those statistics may be useful once we have them.

"We can't expect the Department of Education, with its sophisticated data system, to cope with other kinds of data. So we need a broader discussion and to look at other surveys, like the household survey, to pick up other data on higher education such as student absorption."

Professor Rolf Stumph, outgoing vice-chancellor of Nelson Mandela Metropolitan University, suggested that the next level of sophistication for the indicator system "has to be relative and not absolute norms – relative norms for peer groups would make more sense."

Cloete stressed that this first phase of indicators is developmental. The next phase would focus on peer groupings, and a third phase would enable higher levels of sophistication.