CDE debates

How important is it for South Africa to produce internationally competitive university graduates?

CDE held its fifth debate on 6 November 1996. The speakers were Fr Smangaliso Mkhatshwa, deputy minister of Education; Dr Nick Segal, CDE board member and strategy and corporate affairs director of JCI and newly elected president of the Chamber of Mines; and Dr Edward Antonio, lecturer in Religious Studies at the University of the Witwatersrand. Dr Antonio, a Zimbabwean, describes himself as a street kid with no formal schooling who taught himself to read and write. He has a Ph.D from Cambridge University. The debate was chaired by Professor Douglas Irvine, former head of the Department of Political Studies at the University of Natal (Pietermaritzburg) and presently senior associate at CDE.

Why is it important for any country to produce internationally competitive graduates? Why is it important for South Africa specifically? In general, the answer must be that it is good for any country to have a vigorous intellectual life, a pool of knowledge and the high level of skills which goes with the production of university graduates of that calibre.

Beyond this, though, there is a more immediate answer, in the context of global economic competition. South Africa is part of the global economy and the role of education, specifically higher education, is crucial. South Africa needs to be internationally competitive if it is to generate the resources needed to meet the challenges of democracy, development and delivery.

The national commission on higher education, which reported in August, observed that there are critical shortages of skills in the areas of economic development, governance and management. The commission recommended a single co-ordinated national higher education system for the country aimed at growth, equity and redress, and excellence.

This is a great challenge for public policy makers. Can these three aims be combined? Can they be realised simultaneously in the light of limited financial resources? Which trade-offs have to be made? Where will resources be concentrated? In which fields? In which institutions? Who should decide where resources are to be allocated? Is there the political vision, will and courage to make these decisions?

Finally, a very specific challenge, both now and in the future: how do we keep our internationally competitive graduates in the country?

WHAT ARE THE CDE DEBATES?

During 1996 and 1997 CDE will run a series of debates on topics of crucial importance to current national policy issues. The intention is to air issues underlying the topic and to raise the challenges that must be met by the players and the policy makers. Following each debate, CDE will publish a pamphlet summarising the event. These will be widely distributed and publicised as CDE's contribution to keeping the debate alive.

What the speakers had to say...

Fr Smangaliso Mkhatshwa opened the debate by saying that quality and international competitiveness were among the issues raised by the proposed 'massification' of higher education. The debate also raised the question of what role higher education should play in preparing students for their future role in South Africa. His contribution, he said, was to focus on a holistic approach which put international competitiveness within the broader framework of developments in higher education.

The challenge of 'massification' is to transform higher education to meet real educational needs and provide quality education. It is the purpose of higher education to add permanent value to learners, to stimulate curiosity, to foster a spirit of critical enquiry and to impart skills. Higher education requires more detail, greater depth of insight and more intellectual mastering than in other sectors. The mission of the Department of Education is 'to ensure that all South Africans receive life long education of high quality'. The envisaged transformation of higher education will emphasise quality education which will be internationally recognised and competitive.

The first mechanism to ensure quality is the National Qualifications Framework (NQF) which will enable learners of all ages and at all levels of educational development to gain ready access to learning opportunities. Key words which describe the nature and purpose of the NQF are 'standards', 'relevance', 'accreditation', 'maintenance of quality' and 'recognition internationally'. An independent body, the South African Qualifications Authority (SAQA) had been established to oversee the effective implementation of the NQF including the achievement of its central goals.

The second mechanism is the establishment of a number of national bodies which will set standards and qualifications. The SAQF Act provides for a quality assurance system which includes three functions: institutional audit, programme accreditation and quality promotion. The envisaged Higher Education Council and Higher Education Quality Committee proposed by the national commission on higher education will play a major role.

"Higher education in South Africa must compete in the open world market"

This proposed transformation of higher education is in line with international trends. South Africa as a new democracy is now part and parcel of the international community. We are part of global education. Higher education in South Africa must compete in the open world market with other international providers and offer quality programmes to learners from anywhere in the world. If our standards are not in keeping with those available internationally, South Africa will lose its students to foreign institutions.

International competitiveness should be addressed at the following levels:

Systemic competitiveness: Higher education is challenged to reshape its system to be in line with the human resource needs of South Africa so that students will contribute to the well being of communities nationally and internationally.

Institutional competitiveness: Institutions of higher learning should be managed and steered internally in a manner which serves quality. Academic developments should be prioritised and incentives put in place to maintain expertise. Programmes are only as good as the people who run them.

Programme competitiveness: Academic peers applying standards through collegiate review of course syllabi, research methods and professional publications play a major role. Evaluation of teaching and research is a tool for quality improvement. External examiners and visiting committees will ensure that local standards are set against international norms. Resource-based learning could add a new dimension. This entails programme development by the best academics, writers and specialists to enhance quality without putting additional burdens on existing staff. The outcome might be that centres of excellence are established for certain fields of study.

Asavia Wandira, author of The African University in Development, sums up the challenge: 'A university which does not enjoy international acceptance of its standards prejudices the academic future of its most promising graduates. As its standing as a place of higher learning declines, the university's ability to recruit good staff and students declines also. Mediocrity today leads to greater mediocrity tomorrow.'

Nick Segal said that the international experience of the concept of excellence in higher education and its relationship to economic performance was highly varied. One generalised at risk. For instance, Britain is home to two of the world's leading academic institutions, and yet it is one of the poorest performers in the European economy. By contrast, Italy, which arguably has no world-class universities, had performed impressively over the past 40 years.

International competitiveness should be looked at both in a narrower and a much broader, economic sense. It is a country's ability to perform competitively internationally which will ultimately be the vehicle through which the country will be able to sustain many things, including its universities. This is a chicken and egg situation: to be internationally economically competitive, a country needs the input of skills and capabilities.

South Africa has, for example, coal mines which are world-class facilities and to run and manage these, the mines need people with world-class skills, talent and capabilities, people who combine their skills to form something larger than the individual, namely organisational capability. At this level South Africa needs world-class capabilities to ensure international competitiveness.

This need is illustrated too in the world of corporate finance and, to take a quite different example, in metropolitan planning. If South Africa is to be internationally successful economically, the country must be home to international-class companies. For a city to be attractive to them, it must have infrastructure that works. If a company is mobile, it will choose not to locate in a place which does not work well. Cities need planners and managers who can operate metropolitan areas at a level which is recognisable and acceptable to world-class players. From the perspective of international trade, and from the perspective of the institutions, services and structures which support international trade, there is no doubt that South Africa needs world-class capabilities.

But does this automatically translate into a need for internationally competitive university graduates and institutions? Given the economic advancement of Italy and its lack of world-class institutions, one cannot be sure. Singapore and Hong Kong, also hugely successful, are similar examples. Japan too had relatively modest institutuions of higher education and research until it moved into the leading edge of technology, notably in manufacturing systems. Then it needed leading edge science to underpin the technology. And so in the past 20 years Japan has started to develop world-class academic and research capabilities.

This poses dilemmas, although South Africa cannot compare itself with Japan. Nevertheless, there must be fields in which, if we do not have international excellence, we will not be able to sustain our own economic performance. The mining industry is one. South Africa is a world leader in deep level mining and its multiple support technologies. If we do not have flows of people, ideas, skills and technologies coming through our mining education facilities to sustain this excellence, the mining industry will suffer. Business theorist Michael Porter has said that successful nations rely on a cluster of research, skills, standards, supportive

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government policy, venture capital, finance and entrepreneurial spirit which work together to underpin successful economic performance. If South Africa is unable to assemble this mix in its areas of comparative international advantage, the country will be in trouble.

In the process of developing technological excellence and the relationship between the companies which develop and manage that technological excellence and the supporting higher education institutions, it is very often companies, not universities, which are at the leading edge of the disciplines concerned. This is true of biochemistry, biotechnology, information sciences, materials and electronics. There is necessarily a symbiosis between academic institutions and companies.

Finally, one might well wonder whether we in South Africa don't overemphasise higher education to the detriment of primary and secondary education, particularly the primary education of women.

Dr Edward Antonio posed some questions about the concept and value of competitiveness although he agreed at the outset that it was vitally important for South Africa to produce internationally competitive graduates.

The term 'competition' creates an impression of having one meaning only. This is not necessarily the case. Competition came to prominence during the industrialisation in the 19th century and was characterised by companies competing with each other for market share. It has a distinct economic dimension. Darwin presented competition as the impetus which kept evolution going, hence 'the survival of the fittest'. The idea of competition today is the essence of the free market system, so much so that the economic and political models which shape our lives are in fact determined by notions of competition.

The idea of competition is not above criticism, particularly if one juxtaposes the term against other ideals such as co-operation and excellence. Competition should include the notion of excellence to help differentiate a desirable concept from undesirable forms of competition.

Competition is not simply the struggle for resources which guarantees the success of the strong against the weak. It is not necessarily the war of all against all; of trying to gain what another person is also trying to gain at the same time. This seems to be the level to which the ideal of competition has sunk today. The business section of any newspaper will describe the price wars - even taxi wars. Competition in this instance is described in militaristic metaphors - struggle, warfare, out-manoeuvring. If we follow these metaphors to their logical conclusion, we will end up with a world morally not worth living in.

Competition should rather be conceptualised in terms of excellence, not contestation. This notion is particularly useful to universities and companies invoking as it does the issue of quality. Excellence is measured by the extent to which individuals or institutions seek to make best possible use of their resources and potential in the best possible way in order to achieve a better form of life. For universities, this means that they must provide the context within which the development of skills, critical habits of mind and forms of expertise serve as objectives towards which students strive. If universities fail to cultivate a sense of excellence in this sense in their students, and promote instead a sense of competition understood as a war of all against all they will be doing society great harm. Unless we think of competition in terms of certain structures of value, or within the context of a certain moral framework, we are likely to produce graduates whose only drive is self-aggrandisement.

What sort of graduates should South African universities be producing? This depends on the social, political and economic objectives of the country. Universities do not exist in a vacuum. They exist to serve the needs and priorities of communities. For South Africa this means being attuned to the needs of business, the public sector, and other stakeholders. We can either produce graduates who are very good at what they do only in terms of their expertise, or who are more rounded with a sense of culture and openness to the world and who have a sense of fairness and who have the interest of their country at heart. A more broadly based university education is far more likely to be relevant to South Africa's needs since it will take into account its social environment. South Africa is fortunate in being a highly diversified society. A broad education seeks to address some of these differences.

Points raised during open discussion...

● Employers - public and private sector - need internationally competitive graduates. But does South Africa need to produce them? Taiwan, for 30 years after World War II while it faced a period of reconstruction and development, generously funded graduates' studies abroad which, Taiwan said, was cheaper for the country and produced a better quality graduate. Is there relevance in this example for South Africa?

Nick Segal pointed out that the difference between South Africa and Taiwan is that South Africa is not starting with a green field. South Africa has a number of mature industries and companies which need local, accessible research. In a green field area where South Africa has no track record, the Taiwan route may well be plausible, provided the graduates want to return to South Africa.

"South Africa has to address the lack of a culture of learning"

Fr Mkhatshwa said South Africa had to address the lack of a culture of learning. This, in essence, was the educational challenge facing the country. South Africa needed a massive campaign to promote a culture of learning which would produce multi-skilled graduates.

● A representative from Naptosa (the National Professional Teachers' Organisation of SA) said South Africa did not have the resources, physical and human, to prepare for the noble idea of quality graduates. Coupled to the lack of a culture of learning already mentioned, South Africa's school curriculum was sadly lacking, with little or no emphasis on the sciences and technology and which in content and approach did not engender critical thinking. The country hardly had a pool from which to develop world-class graduates locally. Perhaps South Africa should follow the Taiwanese example until it was in a position to catch up.

● South Africa needs to introduce a concerted ideological drive to emphasis the importance of learning. South Africans were forced into a position of dependency in the past and have not moved away from this. Through the democratically elected government, South Africans have the capability to be revolutionary in approach. We must talk about education in the same breath as industry, for it is the prospect of jobs that should motivate a culture of learning.

● South Africa does have the human resources and this is our country's biggest advantage. But how do we develop our human resources in the light of matric exam leaks and forged University of Zululand degrees?

● How are we going to ensure that we keep graduates in South Africa?

Dr Antonio agreed that the brain drain was a concern. Producing internationally competitive graduates often meant exporting skills. Foreign investors, on the other hand, look to the local employment market for the skills they need.

Nick Segal said South Africa had to offer graduates a place where they want to live through a sense of community, commitment and opportunity. The country needs to nurture entrepreneurs as well.

Fr Mkhatshwa added that it was not only private enterprise which needed skills. Government too needed world-class graduates to ensure good governance.

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- A representative from the SA Graduates Development Association raised two points: potential university students are struggling to gain access to universities because of sub-standard primary and secondary schooling. Secondly, there seemed to be little co-operation between business and government with regard to the type of graduates business would employ. This was evident from the high unemployment rate among graduates.
- A representative from the Social Rights Institution expressed his concern about outstanding fees owed by graduates who therefore had not been awarded their degrees. He suggested that universities be made more financially accessible, and asked whether courses being offered by South African universities were relevant to its economy. He also felt that too few of the country's political leaders - at national, provincial and local levels - had had the benefit of higher education.

Fr Mkhatshwa said government is looking at the possibility of establishing a human resource development strategy which will involve a projection of South Africa's educational needs for the future. Other countries had successfully nurtured students through similar schemes to take up positions in the public and private sectors where particular skills were needed.

He said any responsible government which was aware that many of its citizens were poor, unemployed, unskilled and without property, should consciously address these problems. The same applied to education. Black South Africans, for instance, were not proportionally represented as students in the country's tertiary education institutions. He said in tackling such problems, government did not intend to take a 'top-down' approach, but would form partnerships with the entrepreneurial sector, with civil society, with educational institutions, and teachers and trainers. Government, he said, would be failing in its duty if it did not come to grips systematically with the education problems and lack of skills training facing the country.

Fr Mkhatshwa said one of his immediate tasks was to raise R440 million to assist historically disadvantaged students with tertiary education. A student financial aid scheme was introduced some months ago as an interim arrangement towards the development of a long term sustainable national student financial aid scheme .

Dr Segal said there was already a great deal of co-operation between business and the universities. Partnerships do exist.

Dr Antonio said that where a culture of learning and research exists, the relationship between people and universities is closer. South Africa and Zimbabwe are not reading cultures. This gap had to be closed.

Concluding remarks by CDE senior associate Douglas Irvine

In the national accounts, education is entered as a consumption item. It does indeed cost a great deal and a great deal is spent on it. However, education should also be seen as an investment. Considered in this light, education in South Africa has been a dismal performer. It has shown poor returns and a lop-sided delivery. This was mainly the fault of Bantu Education, of course, but other elements in the system were also far from satisfactory.

South Africa has now entered a new era and the real challenges are being faced. However, education is a long term investment and there are no quick returns. This is particularly true of tertiary institutions. It is commonly recognised that expenditure on tertiary institutions is very badly skewed, in the direction of universities as opposed to technikons, and in terms of humanities as opposed to the sciences and technology. This has to be remedied.

In so doing, decisions will have to be made about the allocation of scarce resources and the development of centres of excellence. Policy choices will have to be made which will make many people and many institutions unhappy. Among these may be potential students whose aspirations will be redirected into fields where they did not think they would go. The development of institutions must also be systematically reshaped. In some areas there will have to be cutbacks, other areas will be expanded. Many people will not like the reallocations. The government is going to face the problems of democracy. There will have to be some kind of balance between democratic demands and the willingness of a government to govern by making the difficult decisions necessary to develop our institutions and our human resources sensibly.

If education is to be thought of as an investment, then the people whose money is being invested, namely the taxpayers, have to hold the investors accountable. Government and our education institutions themselves must be held accountable for the good management of our investment in education.

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