Present-Day Dillemas And Challenges Of The South African Tertiary System

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ABSTRACT

The Education White Paper 3 on Higher Education aimed to transform the higher education system. Change within tertiary education included adjusting the size and shape of institutions, the meaning of autonomy and accountability, the nature of higher education, the character of student demographic distribution, management and governance, roles of student politics, models of delivery, the notion of higher education in terms of the relationship between free trade and public good, programme changes and the nature of the academic workplace. At this stage, transformation in higher education is leaping outwards to fulfil the criteria set by international competitiveness and related efficiency criteria that can be attributed to globalisation pressures and to deeper factors inherent in the nature of higher education, especially in terms of its resistance to change and modernization. In this regard, the tertiary higher education system in South Africa is faced with many multi-dimensional challenges that need to be addressed in this article. This includes stating whether Grade 12 results as the outcome of this exit point at school level are, internationally speaking, a reasonable predictor of first-year academic success at university. In South Africa, there is no benchmarking of the National Senior Certificate (NSC) examination; therefore, first-year students have difficulty in adapting to the university environment as they find themselves devoid of indispensable bases for the pursuit of their studies and the weakness of the level of education given at school level in a large number of instances. Furthermore, five universities were placed under administration in the 2011-2012 period because of appallingly poor levels of management, which adds extra layers of suspicion to the notion of the impact of higher education in South Africa. Many other challenges are facing the South African tertiary education system, which will be analysed and recommendations arrived at that will attempt to contribute to an enhancement of tertiary education in South Africa.

Keywords: Tertiary Education; Admission; Quality Education; Funding

INTRODUCTION

T here is the epistemological tradition that the University should be a place devoted to enquiry and scholarship, free from utilitarian demands where the economic importance of higher education is acknowledged (Waghid, 2008).

The Education White Paper 3 on Higher Education 1997 aimed to comprehensively transform the higher education system (DoE, 1997) and, in this context, the role of the post-apartheid system has been addressed in a number of key policy and discussion documents (Balintulo, 2004; DoE, 1997). The objectives of White Paper 3 were to address problems of equity, redress, democracy, autonomy and efficiency (Elliott, 2005). In this regard, the South African higher education system is under considerable pressure to provide access and quality education to all (Vandeyar, 2010). Within the context of the enormity of the shift from apartheid to democracy, the tertiary system has been and is dominated by considerations of transformation, which has to do with the restructuring (mergers and incorporations) of higher institutions in South Africa (Mouton, Louw & Strydom, 2012). But, restructuring and mergers also accentuate quality and raise the spectre of academic levelling (Elliot, 2005). The merging of institutions in South Africa included resistance to change and low levels of trust (Eloff, 2009). Mergers were

politically motivated and the South African higher education system needed, in the view of the political masters, to be incorporated within the fast-changing, technology driven and information-based economies described under the rubric of globalization (Sehoole, 2005). It should also be noted that many changes were involved in the transformation of higher education in South Africa (Jansen, 2004). These included the size and shape of institutions, the meaning of institutional autonomy and accountability, the nature of higher education, the character of student demographic distribution, management and governance, the role and place of student politics, models of delivery, the notion of higher education between free trade and public good, programme changes and the nature of the academic workplace (Jansen, 2004). Thus, from 1999, some higher institutions began to engage with the merger process, as instructed by the Minister of Education and required by the Higher Education Act of 1997 (Mfusi, 2004). In a relatively short period, 21 universities became 11 institutions, 15 technicons were reduced to five independent institutions and six comprehensive institutions (combination of universities and technikons); 150 technical colleges became 50 merged technical colleges, and 120 colleges of education were either incorporated into universities or technikons (Mouton et al., 2012). More than a decade after these mergers, issues of access, equity and quality in relation to the function remain challenges in higher education (Le Grange, 2011). The fact that transformation in higher education is leaping outward to fulfil the criteria set by international competitiveness and related efficiency criteria can be attributed to globalisation pressures and to deeper factors inherent in the nature of higher education, especially its resistance to change and modernization (Vandeyar, 2010).

AIMS OF THE STUDY

Higher Education reform is a worldwide phenomenon induced by internal and external environments of higher education functioning. In the light hereof, it was strongly emphasized by Mouton et al. (2012) that there is a need that further research should be conducted on the challenges that exist within tertiary education. The aims of the study will focus on the challenges facing first-year admission to tertiary education, the role of universities in providing quality education, funding of tertiary institutions, possible further development of tertiary education, and the rationale for establishing more universities for South Africa.

METHOD AND PROCEDURE

Utilizing the research methodology of narrative enquiry, the challenges within tertiary education in South Africa will be explored. The databases used are EBSCO, Sabinet online, journals, books and various newspapers. The keywords include tertiary education, admission, quality education, funding.

CHALLENGES FACING TERTIARY EDUCATION IN SOUTH AFRICA

The above will be discussed as follows:

- Challenges facing first-year admissions to tertiary education which will include the influence of the school system on tertiary education and the admission of first-year students to tertiary education
- The role of universities in providing quality education will focus on the diverse purpose of higher education, management of tertiary institutions, improvement of pass and graduation rates, the changing roles of academics, and international students enrolled at South African tertiary institutions.
- Funding of tertiary institutions is controversial and, as such, government funding to institutions and the NSFAS (National Student Financial Aid Scheme) will be explored.
- Due to the dynamics of tertiary education, there is a dire need for further development of this sector. Distance[1] education will be discussed as a means of widening and facilitating access for more South African students.
- The rationale for establishing more universities in South Africa

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[1]   The term now used extensively at the North-West University for this activity is Open Distance Learning.

Challenges Associated With First-Year Admission To Tertiary Education

The Influence Of The School System On Tertiary Education

Grade 12 is the exit point of formal school education in South Africa. Prior to the release of these results into the public domain, there is a process referred to as standardisation and implemented by Umalusi (the body that serves as a watchdog in basic education). During this process, adjustments are made to Grade 12 results for various reasons which range from quality of examination papers to politically motivated influences (Mouton et al., 2012). According to Umalusi, standardization is an essential tool that is used to correct fluctuations in performance that are the result of factors within the examination processes, rather than the knowledge and abilities of candidates, and which have an impact on candidates (Ramphele, 2009). Jansen (*in* Ramphele, 2009) argues that the relevant officials make adjustments in smaller subjects to allow thousands more learners to pass Grade 12 and qualify for university admission. Umalusi, therefore, uses the standardisation process to correct problems at a late stage which makes it very difficult for anyone to understand what candidates actually achieved. Overall, South Africa has seen an increase in the number of learners writing the matriculation examination, while the pass rate has climbed steadily from 47% in 1997 to an all-time high in 2004 of 73% (Govender & Mkhize, 2004). Although the announcement of the new National Senior Certificate (NSC) results showed that there was a general improvement in the South African education system in terms of more learners who had written the final matriculation examinations and a greater percentage of matriculants who had obtained university admission (20% of Grade 12 learners who passed their final examination in 2008 compared to 16% in 2007), Ramphele (2009) refers to these learners as "another generation betrayed". According to Jansen (*in* Ramphele 2009), the results are a swindle and the only change is the complexity of the upper classes. Patterns of achievement after apartheid perfectly mirror the patterns of achievement under apartheid (Nel & Kistner, 2009).

Thus, standardization of Grade 12 results is creating a barrier between original results and adjusted results and therefore is contributing to major discrepancies in the context of the reliability of the schooling system (Naidoo, 2004) and the type of student envisaged for university studies (Cross & Carpentier, 2009; Mouton et al., 2012).

It is of great concern that the opportunity to create an accurate baseline of results is now lost and every subsequent matriculation year will be benchmarked against these essentially inaccurate, manipulated results (Mouton et al., 2012). In this respect, Silman (2008) states that it is ridiculous to assert that children, in line with the tenets of the current school curriculum, should be expected to become critical thinkers before they have adequate factual information to consider, and on which to base their critical thinking skills.

Although, internationally, Grade 12 school results are generally taken to be reasonable predictors of first-year academic success at university, there is still no benchmarking of the NSC examination that was written in South Africa for the first time in 2008. Nel and Kistner (2009) indicate that great uncertainty exists regarding the standard of this final examination as the final exit point at school level and entry point to first-year tertiary level.

Admission Of First-Year Students To Tertiary Education

First-year students have difficulty in adapting to the university environment as they find themselves bereft of the indispensable bases needed for the pursuit of their studies added to the weakness of the level of education given at especially disadvantaged schools (Cross & Carpentier, 2009). The quality of the teachers at secondary education level is equally challenged, with many learners subsequently falling under the category of "under-prepared" (Cross & Carpentier, 2009; Mouton et al., 2012).

The increasing access to South African higher education since 1994 has inevitably resulted in the admission of a new category of students from disadvantaged backgrounds (Cross & Carpentier, 2009). This was due to the fact that there was an increased commitment to address inequalities inherited from the past and to fight against all forms of discrimination within a framework of values which upholds justice, equality and solidarity (Cross & Carpentier, 2009).

The South African higher education system in the democratic milieu is under pressure to provide access and quality education to all the citizens of the country. To this end, many tertiary institutions have changed their admission and recruitment policies in an attempt to redress the imbalances caused by the apartheid education system (Vandeyar, 2010). Also, the Higher Education Act (1997) stipulated that one of the aims is to increase access for students from disadvantaged backgrounds (Van der Merwe & De Beer, 2006). However, unequal schooling of Grade 12 learners complicates the assessment of the potential of learners in South Africa (Nunns & Ortlepp, 1994) as many white children and some black children from privileged social strata attend private schools or former Model C schools, which are perceived as the best schools in the country, while learners from underprivileged strata (mostly black children) attend less prestigious institutions, being victims of educational apartheid (Cross & Carpentier, 2009). Transition from school to tertiary education is another obstacle that prevents students from performing well as educational apartheid persists (Ferreira, 1995). The increase of black students is principally recorded within the less prestigious areas of study, such as Social Sciences (Soudien, 2008). These students are in a situation where academic performance becomes problematic as they fall into the category of being "under-prepared" (Cross & Carpentier, 2009). Louw (1996) indicates that selection of possible first-year students should identify students with the potential to succeed and, in the light hereof, South Africa is experiencing unacceptably high levels of student dropout (Maree, 2008).

An increase in access to higher education in South Africa necessitates a more encompassing cognizance to be taken of the needs of diverse learners in the design and implementation of education programmes (Schreiner & Hulme, 2009). It is commonly known that the highest rate of dropouts occurs in the first year of study in higher education. Conventional tests done on students before entering higher education do not predict, with accuracy, the measures of success that students might obtain in their first year (Fransman, 2003).

Language is another barrier for success in tertiary institutions as for many students, English is a second or third language and therefore they lack the capacities of expression required by university standards (Cross & Carpentier, 2009). The mastery of English as the medium of instruction is considered to be a fundamental obstacle to university success for many black students (Cross & Carpentier, 2009; Jansen, Sehlapelo & Tabane, 2007).

The Role Of Universities In Providing Quality Education

Universities play a fundamental role regarding quality education. Therefore, the purpose of higher education remains controversial as internationalization is a given. This is fundamental for substantial growth within higher education and management of institutions as well as the pass rate of students cannot go unchallenged.

The Diverse Purpose Of Higher Education

The 1997, White Paper made clear that an important task in planning and managing a single national co-ordinated system was to ensure diversity in its organisational form and in the institutional landscape, to offset pressures for homogenisation, and to diversify the system in terms of the mix of institutional missions and programmes that will be required to meet national and regional needs in social cultural and economic development (DoE, 1997).

In this regard, globalization demands that countries produce skilled citizens who are able to effectively access available knowledge, internalise it, produce new knowledge, and employ it to the betterment of society as a whole (Van Schalkwyk, 2002) which is crucial for the process of the development of tertiary institutions. In this regard, Badat (2010) states that there is a need for extensive restructuring of qualifications and programmes to make curricula more congruent with the knowledge, expertise, and skills needed of a changing economy. There should also be no pretence that, in terms of a higher education response to labour market needs, it is a matter of establishing the knowledge, skills, competencies, and attitudes that are required by the economy and society, generally, and by its different constituent parts, specifically (Badat, 2010). In the resulting global economy, the most valuable currency has become knowledge where those who generate and process knowledge to deal with man's socio-economic problems are the ones who are regarded as rich in capital (Van Schalkwyk, 2002). A great concern that should be noted, and that will definitely influence programme offering at institutions, is the fact that President Zuma requested the Minister of Higher Education and Training, Dr Blade Nzimande, to produce 10,000 artisans by 2014

and to provide a range of learning options for matriculants who do not qualify for university (Gwebinkundla, 2010). It should also be noted that more or less three million young people between the ages of 18 and 24 are not in education, in training, or employed (Davis, 2011). Many of the top students emerging from South African schools are not properly equipped for success at universities (Macgregor, 2012). There are also concerns about a potential decline of academic standards against the demands for massification in higher education as key stakeholders, such as businesses, professional bodies, and employer organisations, have lost confidence in the traditional academic quality capacities (Van Damme, 2000). In their view, the ability of higher education institutions to match, quantitatively and qualitatively, the output of institutions with the needs of modern workplaces and labour markets in an increasingly competitive and transformative economy is not guaranteed (Van Damme, 2000).

It should also be noted that the wider tensions and challenges are embedded in emerging higher education policy in South Africa as the system has undergone fundamental restructuring. The 1996 Report of the National Commission on Higher Education (NCHE) provided the framework for the reconstruction of the higher education system and laid the foundation for the government White Paper on Higher Education (DoE, 1997).

In this regard, the Higher Education Act (1997) envisages graduates that will be sufficiently qualified for high-skilled employment in order to address equity in the labour market. Access and throughput are paramount considerations for deserving students from previously disadvantaged backgrounds (Van der Merwe & De Beer, 2006).

The government, as provider of approximately 50% of the income of higher education institutions in South Africa, has the authority to prescribe which programmes should be offered or what type of research should be undertaken (Ntshoe & De Villiers, 2008). The post-apartheid state is seeking to encourage the shift from social sciences and humanities toward science, engineering, and technology (Ntshoe & De Villiers, 2008).

In academic circles, there is not only fear about adequate and properly diversified training in tertiary institutions, but also about our present standards aimed at upholding quality tertiary training. Higher education in South Africa has not been reconceptualized as a coherent system and ongoing, uncoordinated growth is producing fear that the quality of education at all levels of the South African system may decline (Badsha, 2009).

It should be taken into account that universities emphasise higher education functions differently and it also seems that almost all universities in South Africa are migrating, or attempting to migrate, between various manifestations of higher education functions, such as being research universities and universities concentrating on providing quality teaching (Beckman, 2008). However, the research capacity of South African universities is not evenly distributed and is mostly concentrated in six universities - Cape Town, Witwatersrand, Natal, Pretoria, Stellenbosch, and the North-West University. These institutions have the potential to meet international standards (Stetar, 2000) and can account for more than 70% of the research undertaken in higher education (Directorate for Science and Technology Policy, 1996). Research-oriented universities are being called upon to educate South Africa's black elite, while providing the technical expertise and research required for economic growth (Price, 2012; Stetar, 2000). Stetar (2000) indicates that unless South Africa can find a way to provide these universities with the support necessary to maintain their critical missions and develop the quality culture necessary to sustain the entire South African tertiary system, the building of a true quality culture in higher education appears questionable. Furthermore, global rankings of universities reveal that there are only a few world-class research institutions in developing countries, where the University of Cape Town (UCT) has been ranked by the Times Higher Education World University Ranking amongst the top 200 universities of the world (Price, 2012). According to Price (2012), this can be ascribed to the fact that the UCT has been able to set higher tuition fees, ensuring needs-based bursaries to all who qualify academically, retaining the best staff and ensuring more time for research.

Management Of Tertiary Institutions

With five universities placed under administration in the 2011-2012 period in South Africa, the management and leadership of institutions needs serious consideration (Macupe, 2012). As such, independent assessors were appointed to investigate the situation as devastating reports were produced that painted a disturbing picture of poor governance, bad management, and financial mismanagement (Macupe, 2012) in these institutions.

In South Africa, councils govern universities while management, which includes the vice-chancellor and his/her rectorate, is in charge of daily operations. The independent assessors, who were appointed at universities that were placed under administration, pointed out that council members did not understand their roles and functions and often acted inappropriately and destructively (Macupe, 2012). The clash between university councils and their management bodies led to crises in several tertiary institutions from the mid-1990s and institutions' autonomous Private Acts made it difficult for a minister to intervene at that stage. As a result, former Education Minister, Prof. Asmal, incorporated policies and regulations in order for government to appoint administrators at such institutions (Macupe, 2012).

Improvement Of Pass And Graduation Rates

The expansion of the higher education system in South Africa has not made a decisive impact on the participation rate of the South African population between 20 and 24 years old in higher education (CHE, 2010). In 2003, the gross participation rate was 16,3%, against the national target of 20% (Steyn, Steyn & De Waal, 2011). Moreover, very little has changed from 1996 to 2010 in terms of the participation of African students in higher education, but what is evident is a significant increase in the proportion of African students enrolling in universities, from 40% in 1993 to 65% in 2002 (CHE, 2010).

Furthermore, contact undergraduate success rates should, according to the Department of Education (DoE, 2006), be 80% if reasonable graduation rates are to be achieved. Instead, they range from 59% to 80% with an average of 75%. White students' success rates in 2005 were 85%, while African students' success rates were 70%. In 2009, the graduation rate for universities was 22%; for universities of technology, it was more or less 20%; and for comprehensive universities, it hovered at about 11% (Baijnath, 2010). The DoE's target for throughput rates is a minimum of 20% which would imply a final cohort graduation rate of 65%. Instead, throughput rates for 2000-2004 were between 13% and 14% and the cohort graduation rate was 45% in 2004, with an overall drop-out rate of 45% (Badat, 2010).

Also, current post-graduate enrolments and graduate outputs are low and inadequate and must improve to support South Africa's economic and social developmental needs. In 2005, 25% of doctoral graduates were international students; of these, 69% were from the rest of Africa, 15% from Europe, and 16% from the rest of the world (CHE, 2010). The slow erosion of financial resources and the growing demands on academic staff further add to the challenges of increasing access and improving throughput and retention (CHE, 2010).

In 2009, the number of enrolled students stood at approximately 834,000 which is a 3% increase from 2001, with the number of students standing at approximately 665,000 (Mouton, 2011). In 2009, the South African higher education system produced almost 145,000 graduates that built on a linear growth from just over 95,000 graduates in 2001 (Mouton, 2011). The discrepancies in these also challenge the roles of academics. As such, their changing roles at tertiary level need to be discussed.

The Changing Roles Of Academics

Restructuring and merging of tertiary institutions introduced cosmetic modifications (Vandeyar, 2010). It also led to a change in lecturer composition which was motivated largely by the Department of Education (DoE) in terms of retracting subsidies if transformation failed to occur. Thus, many black academics have been recruited to the former white universities to increase numbers so that the institution would look good in terms of the transformatory agenda (Vandeyar, 2010).

The academic profession has undergone and continues to undergo fundamental changes. Student enrolments have increased drastically over the past years and it would appear that academics are also expected to take on more administrative and management responsibilities (CHE, 2010; Ntshoe & De Villiers, 2008). In a study in which eight universities participated, Ntshoe and De Villiers (2008) report the following:

- Higher education institutions expect maximum input from a leaner staff complement so as to cut costs and increase profits.

- Participants attributed the failure of academics to comply with the government's norm of producing a 1.25 unit research output for every full-time staff member recommended by the DoE to increasing student numbers and a corresponding increase in administrative and management responsibilities.
- The majority of participants indicated that they preferred research and the supervision of masters' and doctoral students to teaching undergraduates. They argued that the supervision of master's and doctoral studies is the sole criterion for promotion and that it raises one's research profile in terms of research output.
- Participants overwhelmingly claimed that their roles as academics and researchers had shifted from those of scholars and creators of knowledge to those of administrators and managers.
- Academic staff of publicly-funded universities operate in an increasingly competitive environment, deploying their academic capital, which may comprise teaching, research, consultancy skills, or other applications of academic knowledge.

Thus, academics are facing changes in their conditions of service and a breakdown of norms of collegiality which had dominated their working experience in the past. Freedom to teach in their preferred area of research has been eroded as academics are expected to align courses with national frameworks and goals of market relevance (CHE, 2010).

Two main concerns dominate the discussion about academic staff in higher education: 1) How to replace an aging academic and research staff and 2) how to increase the proportion of black staff in universities as the shortage of black academic staff means that black students lack role models (CHE, 2010).

From the information above, it is clear that the role of academics has become more demanding and diversified. Academics are also required to produce research outputs in subsidy-earning journals as to qualify for promotion. They are expected to fulfil the roles of administrator, manager, support staff, and academic – and all this without incentives or the assistance of additional staff (Ntshoe & De Villiers, 2008).

International Students Enrolled At South African Tertiary Institutions

Since 1994, there has been a steady increase in the number of international students, particularly from the African continent but also from other parts of the world (Louw & Mayer, 2008). It is therefore important that institutions need to focus on new strategies to manage the global trends of internationalization as globalization affects each country in a different way, depending on the individual history, traditions, culture, and priorities of that country (Knight, 1994). The concept of internationalisation describes what happens when students and staff meet across national borders and when an international perspective is integrated into the higher education system (Osborne, 2002). It is a comprehensive strategy with widespread relevance for the multicultural aspects of society (Louw & Mayer, 2008). As such, these strategies should be accepted and supported as an integral part of education policies with the aim of enriching the quality and relevance of education for all (Cambridge & Thompson, 2004).

The Funding Of Tertiary Institutions

In the middle of the 1990s, key institutions found themselves in deep financial trouble because of student debt and the concomitant inability of students to pay their fees (Anderson, 2002). From 2002, restructuring and mergers were in process and some institutions were under new management (Soudien, 2007).

Funding To Tertiary Institutions

From 1987 through 2003, government subsidies to higher educational institutions were based on the South African post-secondary schools (SAPSE 116) subsidy formula (Woodiwiss, 2012). The White Paper on Higher Education transformation (DoE, 1997) rejected this formula and proposed its replacement with a new model aimed to bring equity and efficiency into the higher education system. In 2004, the new funding formula (NFF) was implemented and consists of four block grants - Teaching input, teaching output, and research output, as well as the grant for other institutional factors (Wangenge-Ouma & Cloete, 2008; Woodiwiss, 2012).

In South Africa, funding of higher education is critical for the attainment of the five key policy goals identified by the National Plan on Higher Education (NPHE, 2001). They are:

- producing the graduates needed for social and economic development in South Africa
- achieving equity in the South African higher education system
- achieving diversity in the South African higher education system
- sustaining and promoting research
- restructuring the institutional landscape of the higher education system

In contrast with the earlier South African higher education funding system that was in use during the apartheid era and which essentially ignored issues of equity and redress, the key to the NFF has been that the size and shape of the higher education system could not be determined by student demand and institutional decisions alone, so an incentive-driven system was established (CHE, 2006).

In this regard, the NFF suggests three steps on how to steer higher education: 1) the Ministry determines the national policy goals and objectives of higher education, 2) institutions develop three-year rolling plans indicating how they intend to address the national goals relating to access, redress, and human resource development, and 3) there must be interaction between the Ministry and higher education institutions to approve institutional plans, ensuring that expenditure is based on the amount of funds available (Ntshoe & De Villiers, 2008).

Therefore, the NFF made provision for block grants to be made available to institutions to cover operation costs linked to the provision of teaching and research-related services (Ntshoe & De Villiers, 2008; Soudien, 2007). The payment of block grants is the most common strategy to promote the devolution of control over funds to institutions, while the state sets broad, national priorities such as efficiency, quality of outcomes, student access and accountability (Williams, 1995). There is also a widespread belief that tertiary institutions should be funded publicly and therefore should promote government's goals for higher education (Massy, 2004).

Furthermore, the National Plan for Higher Education (NPHE, 2001) indicates that throughput rates have to improve as funding will be linked to throughput rates (Van der Merwe & De Beer, 2006). This led to the "revolving door syndrome" where more students from previously disadvantaged groups are admitted but drop out after a year or two because of poor academic performance (Dawes, Yeld & Smith, 1999; Kadalie, 2011; Paton, 2011). This is linked to high failure rates, which links to poor throughput (Lourens & Smit, 2003).

Furthermore, tertiary institutions are funded in three ways - by the government, by student fees, and by "third-stream" income, including entrepreneurial activities, donor funding, and contract research activities (CHE, 2010). At this stage, the most important source of financial support for South Africa's public universities is the government, which has historically provided the core support for institutions' operating and capital expenses. The degree of dependence on government funds by individual universities differs where some universities receive slightly more than 40% of their total income from government while others receive almost 65% of their total revenues from them (Ntshoe & De Villiers, 2008).

Thus, given the relatively high dependence of South Africa's universities on public funding, the decline in governmental financial support requires that public universities seek resources elsewhere to maintain stability and be able to prosecute their missions and attain the important policy goals articulated by the NPHE (Wangenge-Ouma & Cloete, 2008). Some universities apparently do not generate any income from other sources and tuition fees are the highest source of non-government revenue for universities, with international donations and research contributing the least (Ntshoe & De Villiers, 2008). The over-reliance of certain universities on student tuition fees creates an additional iniquitous burden for students.

Another component of the block funding to higher education institutions from the DoE is the research output grant, which is based on the output of research publications, research masters' and doctorates. Research publications are counted following a set of guidelines issued by the DoE and assigned to each output an equivalent value or weighting. The total value for research publications is then the sum of the individual components. Only

articles covering original research and published in the DoE's approved list of journals or international indexed journals can be counted and each article counts for a single unit if all the authors are affiliated to a single institution. Publication of books can count up to five units and conference proceedings one-half of a unit. Research masters are counted as a single unit and doctorates as three units (Walwyn, 2008). The research output grant is then calculated according to a specific process and formula. A basis of the NFF is that the government first decides how much it can afford to spend on higher education and then it allocates funds according to the needs and priorities (Woodiwiss, 2012). Thus, the value per unit output is determined by the funds available, divided by the total unit output. Woodiwiss (2012) explains that given the funds available for allocation and if all higher educational institutions increase their research outputs, then the monetary value of a research output unit will decline. One of the main problems with this approach is that it is not a level playing field as high performance institutions set high targets and vice-versa.

Globalisation rests on neoliberal discourses which look at the role of the state in the economy, cutbacks in state expenditure, deregulation and liberalisation (Ntshoe & De Villiers, 2008). Slaughter and Leslie (2001) describe globalisation as a set of political and economic changes that are putting pressure on national higher education policymakers to change the way tertiary education does business. As a result, higher education institutions have adopted market-like behaviours and quasi-marketisation strategies to secure additional funding in the face of fierce competition (Nixon, 2004; Ntshoe & De Villiers, 2008).

It is also important that "academic capitalism" is not confused with "new managerialims" (Deem, 2001). The latter refers to the changes to the type of work done by academics, while "academic capitalism" refers to changes in organisational and management practices. Academic capitalism is thus used to define the way public research universities have responded to neoliberal policies; that is, the way they have responded to the view that higher education policy comprises a set of economic policies (Ntshoe & De Villiers, 2008).

When analysing the above, it is clear that the framework is transparent in its application but that there is no transparency in respect of the initial decision covering the allocation of the total budget to each category. In other words, the relative emphasis between teaching inputs, teaching outputs, and research outputs is not explained in policy documents (Walwyn, 2008). Therefore, higher education can be categorised as a "quasi-public good" and the indivisibilities of costs and benefits of higher education, as well as externalities make it possible to determine to what extent this sector should be publicly financed (Ntshoe & De Villiers, 2008). This reflects the conflict between government's priorities and responsibilities concerning higher education funding and how to create space for private funding without the private sector dictating education policy (Ntshoe & De Villiers, 2008).

The National Student Financial Aid Scheme (NSFAS)

The NSFAS was set up in 1999 with the aim of increasing access of students from disadvantaged backgrounds (not necessarily race-based) to education and training. It provides students who qualify with loans of which up to 40% can be converted to a bursary, depending on the student's academic results. Students repay loans once they are employed and earning above a threshold amount (CHE, 2010). This scheme is funded by several government departments and has the objective of making university education more accessible to previously disadvantaged individuals within South Africa (Walwyn, 2008). Government has also strengthened the NSFAS to steer higher education toward equity by expanding access for previously disadvantaged groups (Walwyn, 2008).

In 1996, a total of 73,410 NSFAS awards were made which increased in 2006 to 124,730 awards. More than 90% of these awards go to African students. This skewed allocation in favour of black students promotes the government's agenda of widening access to higher education for groups previously excluded (Ntshoe & De Villiers, 2008). Despite gains in attaining equity through NSFAS, student debt accumulated from R669.1 million in 2001 to more than R1,196.4 million in 2003 (Nthsoe & De Villiers, 2008). Debt written off at higher education institutions increased from R94.2 million in 2000 to R190.2 million in 2003 which has placed huge financial burdens on tertiary institutions (Paton, 2011; Steyn et al., 2011; Van Schalkwyk, 2002). Furthermore, a ten-year review in 2009 revealed that after spending R12 billion to improve access of indigent matriculants to higher education, only 19% graduated (Kadalie, 2011). The situation at the previously disadvantaged institutions is far worse than at the historically advantaged institutions and the non-payment of tuition fees, as well as the failure to repay loans, has undermined cost-recovery (Ntshoe & De Villiers, 2008).

Furthermore, tuition and accommodation fees for the first years range from R34,000 to R56,000 per year. Public universities are not adequately subsidised and the idealistic goals of free higher education clash violently with the economic reality on campuses (Matshali, 2010).

Another important observation is that discretionary funds per FTE (Full Time Equivalent) student have declined more rapidly than earmarked funding; i.e., subsidies not directly contributing to operational costs, such as NSFAS. For instance, where the government's total funding for higher education per FTE student increased by an annual average of R352 between 1995 and 1999, discretionary funding in the same period increased by an annual average of R173. In the 2000-2004 period, discretionary funding per FTE equivalent declined by an annual average of R655 compared to a decrease of R515 for total state expenditure on higher education per FTE student (Wangenge-Ouma & Cloete, 2008).

The net increase in student enrolments, together with an almost static allocation to the teaching input grant, has resulted in a decline of government funding per student over the period 2000-2005 (Steyn et al., 2011; Van Damme, 2000).

Expanding Tertiary Education Through Distance Education

Distance learning is conducted in a context in which educator and student are separated in time and space (UNESCO, 2002). In this sense, distance education facilitates and opens avenues for effective teaching as it has the potential to bridge the transactional distance between all stakeholders at the institution, which encourages a self-determined learning process (Naidoo, 2011). It is important that the focus of education in the 21st century should be on managing knowledge and not merely on information diffusion (Clarke, Harrison, Reeve & Edwards, 2002). Therefore, the learning environment should reflect the complexity of the environment in which the learners should be able to function and learners should take ownership of the learning process (Naidoo, 2011). It is thus learner-centred as opposed to the teacher-centred approach and requires self-discipline and meta-cognitive processes (Freire, 1985). As such, knowledge is passed on to students through printed study material, computers, videos, audiotapes, cellphones, and so forth (Makoe, 2012). It is also important to keep in mind that distance education students need some form of interaction with their teachers and peers (Moore, 1993).

Distance learning can further be enhanced by the aid of e-learning as a preliminary step in developing critical thinking through synchronous means, such as video conferencing, satellite broadcasting, podcasts, and discussion forums (Naidoo, 2011). Naidoo (2011) argues that if active learning is seen as the primary mode of instruction and not as a supplement to the lecture, such learning will lead to permanent high-level cognitive development.

The following salient points should be taken into consideration regarding e-learning (Makoe, 2012; Unesco 2002; Wells, 2000):

- Students need to be part of a collaborative community.
- Transformation of the participants occurs as a function of participation in activities that have real meaning and purpose.
- Activities should be unique and enable the immersion of the student.
- Curriculum is a means, not an end, and should not be considered as the ultimate goal of education.
- Activities must allow diversity and originality.

These points are noted, but despite studies showing the benefits of using mobile technologies, academics are not convinced about the potential of using mobile devices to develop new ways of teaching and learning, which could be due to the lack of expertise in the instructional design of mobile learning (Makoe, 2012).

Establishing More Universities In South Africa

As further studies are encouraged by government and where more learners pass with endorsement, as well as the fact that the benefits of distant education have not yet fully materialised, the government in South Africa

approved two new universities in South Africa - one in the Northern Cape Province and the other in the Mpumalanga Province. The ANC Youth League sees the establishment of these institutions as a victory for the unemployed, marginalised, and homeless (Evans, 2012). The newly-established university in the Northern Cape was initially suggested to function as a regional learning centre of the Central University of Technology and aim to provide relevant, high-quality academic programmes in a user-friendly way that will lead to life-long learning (Staff Reporter, 2006). It was felt that more institutions would encourage people to enhance their education (Tukakhomo, 2004). Due to the declining quality of school education (Van Damme, 2000), graduates being unemployed (Badat, 2010), mismanagement of some institutions (Macupe, 2012; Van Coller, 2012), and poor research outputs (Price, 2012), the researchers cannot agree more with Van Coller (2012) that South Africa does not need more tertiary institutions.

RECOMMENDATIONS FOR TERTIARY EDUCATION IN SOUTH AFRICA

In order to streamline tertiary education in South Africa, the following recommendations are proposed and will be clustered in the following main areas of concern:

First-Year Admission To Tertiary Education

It is recommended that all first-year students should write psychometric tests to measure the potential of students as educational and socio-economic backgrounds can have an impact on performance (Nel & Kistner, 2009; Van der Merwe & De Beer, 2006). The purpose of an additional measuring instrument is not to replace a final matriculation examination, but rather to provide additional information that can broaden access to higher education (Nel & Kistner, 2009). It must be mentioned that there should be a clear division between students that have the ability to obtain entrance to tertiary education and those not suitable (Schreiner & Hulme, 2009). The latter must be channelled to further education institutions and not be forced into tertiary education by political intervention or the lowering of entrance qualifications (Schreiner & Hulme, 2009).

The Role Of Universities In Providing Quality Education

- With regard to the purpose of tertiary education, it is recommended that the current focus - where the student simply acquires knowledge to pass an exam - should be adjusted to the point where a student is assessed based on what he/she takes into the job market (Van Schalkwyk, 2002).
- Regarding the poor management of some institutions, it has been noted that there is a need for members of university councils to be trained and for councils to be cut down to more manageable sizes, with a smaller number of members (Macupe, 2012). Most importantly, there should also be selection criteria to ensure that only competent, experienced people who understand the sector are appointed as council members (Macupe, 2012).
- The improvement of pass and graduation rates is a great concern; therefore, it is recommended that the selection procedures of students to be admitted to first-year studies should be revisited in order to select students with the potential to succeed in tertiary education (Van der Merwe & De Beer, 2006).
- In South Africa, the influx of students from other parts of South Africa is a given. Students from other parts of the world should also be catered to. Therefore, it is recommended that there should be carefully constructed orientation and training programmes for first-year students that focus on cultural and identity issues (Louw & Mayer, 2008).

The Funding System Relating To Tertiary Institutions And Students

- With regard to tertiary institutions, it is recommended that tertiary education should be steered in a particular direction by changing the requirements for state-funded areas, such as teaching inputs and outputs and research outputs, and by encouraging public-private partnership funding. In South Africa, higher education is currently paying more attention to student success and throughput rates because these have become critical factors in determining state subsidies. However, if throughput rates are over-emphasised, academic standards can be lowered in an effort to increase throughput rates to receive higher subsidies and should therefore not be encouraged (Ntshoe & De Villiers, 2008).

- It is recommended that a system be implemented which will strengthen the institutions and ensure that they can contribute to the long-term objectives of the DHET. Thus, it is suggested that the DHET should consider a medium-term revision to the system which will allow for a broader spectrum of research outputs and that will include a quality component to this measurement. The present framework treats all institutions according to a common set of expectations and benchmarks, an approach which ignores the separate historical roles of the universities of technology versus the traditional universities. The former tends to produce a different profile of output, whereas the latter is more focussed on high quality publications and research qualifications. The main concerns are that the present allocation framework does not adequately reward research and teaching performance, neither does it use a system of indicators that reflect the outputs of contemporary institutions (Walwyn, 2008).

- The system in South Africa is perceived to be unique in that it is intended to provide direct financial rewards to individual researchers for their output, but this is often not put into practice by the higher education institutions. Quality may be sacrificed when only allocating a score to research as researchers may tend to publish as many papers as possible and to preferentially choose to publish in those journals which have the least rigorous review process (Woodiwiss, 2012). Therefore, it is recommended that publications in journals with a high impact factor should be identified and only these journals should be accredited (Lomnicki, 2003). There are also other important benefits of sending manuscripts to high impact-factor journals. First, authors are more likely to receive meaningful feedback as the top journals in each field are most likely to consult the top reviewers in the field. Second, the review process is generally more efficient from a time perspective, in that reviewers for top journals are generally given a maximum of 10-14 days to review a manuscript (Woodiwiss, 2012).

- The NSFAS bursaries play a fundamental role in student accessibility to tertiary education. Thus, it needs to be mentioned that one way of increasing funding to poor students is by changing the current NSFAS allocation formula for individual higher education institutions so that more resources are available for needy students. The NSFAS allocates funding to institutions based on an annual allocation assessment and formula. The allocation formula is informed by the number of disadvantaged students and demographic profile (Wangenge-Ouma & Cloete, 2008). In order to discourage over-enrolment, the DHET has to limit the total allowable teaching input units per institution.

Expanding Tertiary Education Through Distance Education

With the changes brought on by distance education, institutions need to train and develop their staff in new ways of teaching as distance is a means of managing high student numbers (Makoe, 2012). Academics should also be trained in the use of cellphones and other distant teaching devices in order to sustain distance education as the new student generation can be referred to as digital natives with hypertext minds, whereas most academics were socialised differently (Makoe, 2012).

Higher distance education should be integrated with technology in higher distance education in order to accelerate student performance. In this regard, learning should be linked with knowledge construction to optimise performance and learning strategy should incorporate, as well as embrace, e-learning (Naidoo, 2011).

Tertiary institutions must reflect on how their programmes currently utilise technology and how computer-mediated communications may enhance the learning experience for students (Naidoo, 2011). The university should instil in its graduates a capacity for critical judgment and an appreciation of the good life from the vantage position that would prepare them for participation as informed citizens in a democratic society (Waghid, 2008).

Establishing More Universities In South Africa

Due to the immense possibilities that distance education offers with regard to accessibility, demographic sustainability, and financial viability, this niche has not yet reached its full potential and should be fully absorbed as a sector within selected, prestige tertiary institutions in South Africa. The researchers strongly support Van Coller (2012) that South Africa does not need more universities.

CONCLUSION

This article focussed on the challenges that tertiary education faced in 2012. It explored the challenges facing first-year students when admitted to tertiary education, the role of universities in providing quality education, funding obstacles, and further developments in higher education. These challenges were addressed and recommendations were made.

The researchers are strongly of the opinion that the political nuances, as evident in the tertiary system, should be carefully weighed as school and academic performances of leaders in South Africa should be noted prior following academic trends as suggested by some of these so-called leaders.

Furthermore, access to tertiary education should be manipulated based on the abilities of students and opportunities in the job market. If the trend in South Africa persists in giving access to all, it is acknowledged and commended, but distance education should then be seriously considered as a means to open the door to further studies. Keeping this is mind, it will become an undisputable fact in South Africa that a Bachelor's degree is usurping the Grade 12 qualification, which speaks volumes about standards and the tacit acceptance of standards in South Africa.

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