

DESIGNING EDUCATION FOR SALE: A PRICE TAG ON UNIVERSITIES OF TECHNOLOGY

Avitha SOOFUL

Vaal University of Technology

Abstract

The world exists and is driven by need and yet the notion of education remains static. The new dispensation of Universities of Technology (UoT) in 2004 created a sense of anxiety and exhilaration simultaneously. UoT as a centre of educational delivery has implications for the new role which Higher Education will play. This also impacts on Departments of Visual arts and design within such institutions. The South African context of education is layered with social issues which impact on a broad spectrum of its development. This paper considers the idea of education being reconstructed as a vehicle for social upliftment rather than only towards knowledge creation and secondly the need to package education within a business minded position to support economic development. The benefits of an entrepreneurial university broadens our view on education as it engages with the complexity of the world, knowledge generation towards problem solving and allows for risk taking. Central to these two pillars is the value of design thinking as education today is seen as an entrance into the world of work.

Keywords: entrepreneurship, higher education, innovation

Introduction

There is a paucity of information relating to South African UoT's even though these institutions of higher learning were initiated in 2004. The aim of this paper is to unpack the value attached to a UoT in a South African context. It further reviews the notion of the assumed role of UoT's as entrepreneurial institutions. Within this framework new educational programme offerings for 2016 are currently being prosed for acceptance by the Department of Higher Education and Training DoHET. Such programme offerings would become commodities to the general public. The methodology used to support this paper builds on previous research, publications and presentations, current international and local literature. I reflect briefly on personal experiences with other institutions of higher learning, the academic and entrepreneurial trajectory of the Vaal University of Technology, Vanderbijlpark and the Department of Trade and Industry.

The content of higher education programme offerings in South Africa provides for an opportunity at present to reinvent itself and give vision to relevant, applicable knowledge and a curricula which should focus on problem-solving skills, interpersonal communication, and learning to learn (Subotzky 1999, pp. 418). This educational paradigm shift should be in keeping with the constant changing of our evolving society that is infused with notions of being first world and competitive. However one should not be blinded with euphoria regarding this opportunity but be mindful that the residue of apartheid sometimes clogs and blocks new systems and practices which propose to rupture the safety and security of individuals' knowledge base. Secondly the state of secondary schools education impacts directly on higher education's delivery on a healthy economy and lifestyle. Thirdly, the students currently enrolled at universities do not embody our values attached to education.

The concept of a UoT in South Africa has been discussed and debated with particular reference to the understanding of it being a university with a technology status. UoT's further expanded the idea that higher education fed towards an elevated status of faculty and educational offerings. This stands as opposed to the former Technikon institutions which harboured a lesser status than traditional universities. The seminal paper of du Pre' (2004, p. 10) on the role and position of UoT's within a South African context proposes learner-centeredness and the development of knowledge through innovation which can be commercialised. However, the majority of South Africans have grown up with little home experience of business innovation or entrepreneurship and hence do not view themselves to be potentially as such (Co & Mitchell, 2006 pp. 349).

This assumes the position of a UoT as an entrepreneurial institution, an argument which is also supported by Winberg's (2004, p.38) claim that the creation of a UoT is a national plan for "universities to contribute more meaningfully to social and economic development". De Beer (2010, p. 92) further states that the interaction and co-development of links between government, industry, higher education institutions and creation of partnerships are crucial elements of the technology transfer value chain. According to du Pre' (2010, p. 21) what is integral to a University of Technology is the relevance of its curricula and research programmes, which consider problems and concerns of industry, community and society at large. Johnson, Louw and Smit (2010) posit that the afore-mentioned must be done in service to society thus making knowledge tangible. Such thinking propels and drives a UoT into an environment of entrepreneurship which results in a paradigm shift for faculties and current and future educational offerings.

Higher education's relationship with industry

A relevant higher education offering insinuates a binary opposite to an economy when one considers the global and national reports on how higher education in South Africa affects the well being of its economy. This statement is supported by the Global Entrepreneurship Monitor (GEM), 2010/11/12, the Higher Education South Africa (HESA), 2009, Development Bank of South Africa (DBSA), 2010 and the World Bank, 2011 reports. These reports indicate clearly that entrepreneurship is imperative to the wellbeing of any economy and should be implemented within South Africa.

Ideas of job creation and poverty alleviation are the basis on which the GEM report positions itself. This problem is especially evident amongst the country's youth, who more often than not lack the experience, skills and education necessary to access employment in the formal sectors (Herrington 2010, pp. 12).

The HESA report directs attention to the fact that the knowledge, skills, competencies and values of new graduates may be out of sync with the needs and expectations of employers. Secondly, the notion of skills may need to be redefined within the context of a changing world of work. Higher education is expected to do better and more, not only in terms of the quality of graduates produced, but also in relation to the number and type of graduates produced within specific fields of study (Griesel & Parker 2009, pp. 7).

The Development Bank report was of the opinion that higher education must cultivate the knowledge, competencies and skills that enable graduates to contribute to economic development, since such development can facilitate initiatives geared towards greater social equality and social development. In many cases there is also a need for extensive restructuring of qualifications and programmes to make curricula more congruent with the knowledge, expertise and skills needs of a changing economy (Badat 2010, pp. 16).

The report submitted by the World Bank was of a similar opinion that "higher education has a uniquely important role in resolving the persistent skills shortage in South Africa by producing qualified graduates and postgraduates and by generating research and innovation. Raising education and skills levels are crucial not only for increasing workforce productivity, but also for enhancing the innovative capacity of the economy and

facilitating the absorption and diffusion of new technology. The interaction of these factors along with the quality of education, are what propel economic growth” (Skills, Gap & South 2011, pp. 1).

Re-curriculum considerations

The South African context of UoT's stands at a pivotal position to conceptualise its programme offering as a currency for enhancing national competitiveness and as a lucrative service that can be sold on the international market. The argument that Jansen presents in his article, *Mode 2 knowledge and institutional life: Taking Gibbons on a walk through a South African university* that entrenched institutional rules and behaviours threaten to undermine any attempt to rethink the research and practice of education even when such restructuring appears to work in the best interest of students (Jansen 2002, pp. 1). Although this referred specifically to engineering students at the University of Durban Westville, his statement holds true within any educational environment. The mind shift to reposition an entrenched programme offering is easier said than done. Rather than merely stipulating new procedures to enhance the functioning of higher education, this may be seen as attempts to undercut the power and control of academics over knowledge production and reproduction (Naidoo 2003, pp. 250).

A roundtable discussion held at the University of Johannesburg in 2011, after encountering a discrepancy in the assessment of a Masters students' community based project submission, raised much discussion. “Research into community action embraces a complex and multi-modal approach. It needs to accommodate practice, action and experience, and not be limited to traditional academic methodologies. Critical, innovative and creative responses to these questions would be necessary to engender a vital approach to indigenous South African research practices. The contribution of action-based research lies in integrating theory with practice, and creative production with the challenge of enhancing active citizenship” (Berman 2011). Within this context the assessment is not reliant on a prescribed rubric and the question raised was what process of assessment would be “academically acceptable” which benefits both the student and the community? It is not clear at present how postgraduate art and design students can engage in meaningful education and socially embedded research without it being appraised as scholarship. It is also imperative that the process of entrepreneurship initially has its foundations in persons and intuition, and society and culture (Morrison, A., 2000 p59). Higher education is being challenged to become more responsive to societal needs and to emerge from its myopic absorption with the detached concerns of ivory tower academia (Subotzky 1999, pp. 402).

Higher education today is an important pivot of leverage which can gain the confidence of society as imperative to their economic well-being. Industry has already recognised its dependence on higher education for the provision of competent employees. It is for this reason that industry approaches higher education institutions to advise and influence as to its needs and shortfalls experienced. This interdependent relationship would make a significant contribution to knowledge generation and the economy. In particular, the ability to learn how to learn and to innovate have been singled out as indispensable to the ‘high skills’ required in industrial and vocalised by governments. The assumption underlying these mechanisms is that the actions of students as consumers will foster competition between universities to result in a more responsive, flexible, efficient and better quality teaching which is more in alignment with the labour market. (Naidoo 2003, pp. 252) This symbiotic relationship would realise a flexible and relevant programme offering in higher education and an almost seamless transition from classroom to work space.

The South Africa clothing and mercantile industry which includes fashion chain stores are plagued with direct imports from China. On the one hand the South African government celebrates the signing of new agreements with China, the same South African government struggles to lower its unemployment index. The reasoning behind this apart from the signed agreements is that the South African textile industry cannot deliver large quantities timeously, there is a general lack of skill available and locally manufactured are more expensive than

the importation. One of the reasons this occurs is that clothing companies cannot employ a specific specialist to render tasks which will financially benefit the company such as a mercantile technologist. Higher education does not provide for such, instead a student who studied as a fashion designer is employed who is in a completely different field of expertise. This is the abnormalities or conundrums that destabilises and maim our economy.

One of the universal changes in higher education is its moving out of the ivory tower to become more responsive to the needs of the immediate community it serves as well as play a vital role in developing and structuring a new economy. This is a shift from a rigid, controlled education to a more open and interactive higher education system. The latter is sensitive to and recognises the student's different learning styles as well as considers the social and economic changes within its environment. This is not an easy task to develop a new offering which is a guaranteed success. Considerations of secondary schooling education, access to higher education and the flexibility inherent within the faculties of higher education must be considered factors in realising a proposed entrepreneurial education at UoT's.

The designing of a programme offering must consider that the learners need skills that help them cope with complexity (Dym, Agogino & Eris 2005, pp. 105). This echoes the fact that higher order skills are imperative within learners to accomplish the considered changes required and justified in future higher education offerings. Learners should be able to comprehend that their educational learning have social and ethical responsibilities. In constructing a new approach to education which addresses global and national imperatives, opportunities should be built in to improve students' ability to work in teams. Other factors such as problem solving, being creative in responding to challenges, a work ethic and communication skills are basic tenets for a progressive economy.

A valuable work related learning module, Work integrated learning (WIL) which is the most commonly practiced in higher education, is the component of learning that focuses on the application of theory in an authentic work based context. It addresses specific competencies identified for the acquisition of a qualification which relates to the development of skills that will make the student employable. (HEQC 2004, pp. 26). There are programme offerings that have components of such learning established long before the hype of entrepreneurial universities. These are specifically with the visual arts programmes, engineering, education, amongst others. Within the visual arts, such module components drove student participation in live projects, requested by companies. Companies also realised quickly that by engaging in such ventures with higher education, they had greater valued designs and the costs were cheaper. Students realised the value of a virtual/ real job experience with their personal take to a project brief and engaging with a client.

Subotzky argues that the final White Paper makes considered references to the notion of both a global and national priorities. Higher education committed to the responsibility of establishing the basis "for the development of a learning society which can stimulate, direct and mobilise the creative and intellectual energies of all the people towards meeting the challenge of reconstruction and development" (Department of Education 1997, p. 7). He further states that the purposes of higher education in the context of contemporary South Africa must "contribute to and support the process of societal transformation outlined the RDP, with its compelling vision of people-driven development leading to the building of a better quality of life for all". It must also "provide the labour market, in a knowledge-driven and knowledge dependent society, with the ever-changing high-level competencies and expertise necessary for the growth and prosperity of a modern economy" (ibid.) (Subotzky 1999, pp. 412).

On a larger scale, South African UoT's currently have established various business units and a few institutions have created science park facilities and set up incubators with the assistance of the South African Department of Trade and Industry. It is imperative that Government recognises the entrepreneurial trajectory initiated by

an institution and financially supports such initiatives. This realises closer links and relationships being established between the university and the business sector. The current value of UoT's is not only its direct educational offering but the recognition of technology transfer as part of its make-up. It is for this reason that technology transfer offices are established to render services to business and industry as well as generate research and innovation. Such establishments are business ventures in itself which would require patent protection for new products being developed.

Conclusion

Higher education in South Africa must provide education and training to develop the skills and innovations necessary for our national development and successful participation in the global economy. It has no option but to restructure its programme offerings to face the challenges of globalisation. The value and content of new offerings will be available from 2016 to a new cohort of students. Institutions are closed to what content delivery is on offer by other UoT's as institutions are not sure themselves of the waters they tread. The affirmation that creativity and innovation is embedded within newly designed education packages can create the notion of academic capitalism seated within higher education is the new offerings are consumed and prove reliant.

The reality that the visual arts are a major contributing creative industry injecting directly and indirectly into the economy, cannot be ignored. In response to this, it is imperative that Art departments identify and resolve their niche areas which would become their flowing currency. It is a given that higher education institutions will begin waging competitive programme offerings from 2016 which also establishes their independence from a once generic offering. The positive view on the new offerings is that the individual and departments almost secretive knowledge of niche areas to be serviced would be beneficial. The isolation of gaps in what could and should be offered would cover a vast expanse of neglected industry needs and a refreshed programme offering. The new offerings are not simple thumb sucks but researched and bench marked content that is real and flexible. The flexibility of the offering is the sustaining factor which speaks to the evolving nature of society. In this way higher education will be driven by need and not ivory tower academia.

New offerings can get carried away with its new found sense of being however it is imperative that the learner is always considered when directing a new curriculum. Current thinking is to impose learned values on students without the realisation that students today can multi-task, their attention span is short and that they are technologically savvy. The development of competencies, skills, aptitudes and values towards being entrepreneurial does not instantly create success although it adds value to the individual. The learner must be able to understand that the career choice selected will be the driving content of the entrepreneurial endeavour. This assumes that the higher order skills of creativity and innovation, skills expected in the workforce today must be inherent in the learner.

Research results indicate that the entrepreneurship education in South Africa is in its developmental stage, although it is perceived as important in elevating the profile of any institution and there is increasing commitment from the institutions in academic, research and outreach offerings in entrepreneurship (Co & Mitchell 2006, pp. 348). It is imperative that a holistic education is the content of what we offer and that entrepreneurship is an aspect of that education.

References

- Badat, S 2010, 'The challenges of transformation in higher education and training institutions in South Africa'. *Commissioned by Development Bank of South Africa* [... Available at: http://www.ru.ac.za/media/rhodesuniversity/content/vc/documents/The_Challenges_of_Transformation_in_Higher_Education_and_Training_Institutions_in_South_Africa.pdf [Accessed July 13, 2013].
- Berman, K 2011, Roundtable Discussion: 'The challenges of assessing Masters Dissertations employing multidisciplinary methods', June 9th 2011, University of Johannesburg.
- Co, M J & Mitchell, B (2006), 'Entrepreneurship education in South Africa: a nationwide survey'. *Education + Training*, 48(5), 348–359. doi:10.1108/00400910610677054
- Department of Education (1997). Education White Paper 3: A Programme for the Transformation of Higher Education. Pretoria: Government Gazette No 18207, August
- De Beer, D 2010, 'Technology transfer at Universities of Technology-operating as "New Generation Universities'. *Kagisano: Universities of Technology – Deepening the debate*. Journal of the Council on Higher Education, Vol.7, Pretoria: Council on Higher Education. pp. 89-112.
- Du Pre', R 2004, 'The Philosophy of a University of Technology in South Africa: An Introduction'. *Sediba sa Thuto: Academic Journal of Vaal University of Technology*, Vol. (1) Vanderbijlpark: Vaal University Press.pp.9-34.
- Du Pre', R 2010. 'Universities of technology in the context of the South African Higher Education Landscape'. *Kagisano: Universities of Technology – Deepening the debate*. Journal of the Council on Higher Education, Vol.7, Pretoria: Council on Higher Education. pp. 1-41.
- Dym, C, Agogino, A & Eris O 2005, 'Engineering design thinking, teaching, and learning'. *Journal of Engineering*, (January). Available at: <http://onlinelibrary.wiley.com/doi/10.1002/j.2168-9830.2005.tb00832.x/abstract> [Accessed July 15, 2013].
- Griesel, H, Parker, B & Authority, S, 2009 'Graduate attributes: A baseline study on South African graduates from the perspective of employers'. *Higher education*, (January). Available at: <http://link.springer.com/article/10.1023/A:1003714528033> [Accessed July 13, 2013].
- Herrington, M 2010 Tracking entrepreneurship in South Africa: a GEM perspective, Available at: http://www.africanentrepreneur.com/web/images/GEM_SA_2009-Tracking_Entrepreneurship.pdf [Accessed July 12, 2013].
- Higher Education Qualifications Council (HEQC) (2004), Criteria for Institutional Audits, Ministry of Education, Cape Town, June, available at: www.che.ac.za/documents/d000061/CHE-Institutional-Audit-Criteria-June2004.pdf (accessed 12 July, 2013).
- Jansen, J 2002 'Mode 2 knowledge and institutional life: Taking Gibbons on a walk through a South African university'. *Higher Education*, (2000), pp.507–521. Available at: <http://link.springer.com/article/10.1023/A:1015264929074> [Accessed July 13, 2013].

Johnson, B, Louw, A. & Smit, J 2010 The New Generation University: views on knowledge and knowledge generation. *Kagisano: Universities of Technology – Deepening the debate*. Journal of the Council on Higher Education, Vol.7, Pretoria: Council on Higher Education.pp.113-127.

Kelley, D J, Singer, S, & Herrington, M. (n.d.). The Global Entrepreneurship Monitor 2011 Global Report.

Morrison, A, 2000 'Entrepreneurship: what triggers it?' *International Journal of Entrepreneurial Behaviour & Research*, 6(2), pp.59–71. Available at: <http://www.emeraldinsight.com/10.1108/13552550010335976>.

Naidoo, R, 2003 'Repositioning Higher Education as a Global Commodity: Opportunities and challenges for future sociology of education work'. *British Journal of Sociology of Education*, 24(2), pp.249–259. Available at: <http://www.tandfonline.com/doi/abs/10.1080/01425690301902> [Accessed May 21, 2013].

Winberg, C 2004 'Becoming a University of Technology'. *Sediba sa Thuto: Academic Journal of Vaal University of Technology* Vol. (1) Vanderbijlpark: Vaal University Press.pp.38-54.

Winberg, C 2005 'Continuities and discontinuities in the journey from Technikon to University of Technology. *South African Journal of Higher Education*. 19(2).pp.189-200.

Skills, CTHE, Gap, T & South, IN, 2011 Technology gap in South Africa background paper 3 : the role of higher education in closing the skills gap in South Africa 1. (October).

Xavier, S R, Kelley, D, Kew, J, Herrington, M & Vorderwülbecke, A (n.d.) The Global Entrepreneurship Monitor 2012 Global Report.