Colin Daniels
Associate Dean
Faculty of ICT & Design
Cape Peninsula University of Technology
PO Box 1906
BELLVILLE 7535
danielscr@cput.ac.za

### Reviewing Design Education: A merger imperative

#### Abstract

This paper deals, with the need for transformation of the design profession and industry as a consequence of a governmental initiative. The demographics, with respect to the design industry do not reflect the wider South African society. These challenges also face the Universities of Technology in respect of student demographics and profile. Adaptability of staff in respect of change and innovative recruitment as well as marketing drives ensuring that access to design education is not narrowed as a result of mergers. The deployment of innovative teaching and learning strategies as a result of multi-campus management of academic programmes, underpinned by a quest to maintain quality, are challenges that cannot be underestimated. The role of the academic staff in effecting change is therefore crucial to transformation in a multi-cultural sensitive environment.

Key Words: Transformation; quality; University of Technology; adaptability; mergers; access.

#### Background

The post 1994 elected Government indicated a need for the transformation of the design industry in a manner that would reflect the demographics of the Republic of South Africa. Organizations in many cases, made what may be perceived as token affirmative appointments, in respect of trying to appease the demands of a changing society, without relinquishing effective control. In the long term some historically disadvantaged employees were fast-tracked to the detriment of their own personal development and self-esteem. What was lacking was a meaningful developmental plan that could have empowered affected employees, in such a manner that they would make a meaningful contribution to the development of their organization, and at the same time be a role model for their communities.

Cosmetic change and implicit tokenism are the legacies of a discriminatory system that are kept alive, even in this day and age, by those die-hards that cannot accept change through transformation. We must guard against lip service that can be deceptive and so easily be perceived as genuine. The converse is also true, namely that one must guard against being suspicious and over-sensitive towards real and meaningful attempts at transformation. The onus is on both parties to cross their proverbial Rubicon's in an endeavour to create a better future for all.

#### The need for transformation

Transformation of the design industry can only come about effectively and meaningfully, if the profile of the source of supply i.e. emerging design graduates from tertiary institutions, reflect the envisaged outcome of the government's transformation initiative. The transformation of the design industry has implications not only for tertiary institutions, but also for the FET (Further Education and Training) and GET (General Education and Training) institutions in respect of its curriculum, with specific reference to Design as a school subject.

The current situation is such that Design is not one of the pre-requisite entry subjects for higher education institutions. This implies that school principals are not at liberty to offer this subject implying that the need for this subject will diminish and will result in a decreased demand for design teachers. The net effect will be that fewer school leavers will be exposed to the design discipline at school level resulting in a decreased enrollment of design students at tertiary institutions, which in turn will result in a low output of design diplomats meeting the needs of industry.

The schools that will persevere with design education will in all probability be the former Model-C schools where art education was part of their curriculum. Learners from historically disadvantaged schools will continue to be under-exposed to design in general and design education in particular. Note is taken of the initiatives of local education departments and in particular the Western Cape Education Department's endeavour to promote arts and culture and design, by establishing focus schools primarily in the historically disadvantaged areas. The emergence of adequately trained design schoolteachers is an issue that requires redress as a matter of urgency. The involvement of tertiary institutions' design faculties in assisting in the training of high school design teachers is crucial.

Whilst many if not most tertiary institutions have undergone changes in respect of their respective student profiles, the change does not appear to meet the need for transforming the design industry. Herein lies the challenge and is in fact at the heart of the matter. Whilst the profile of tertiary institutions' top management has undergone transformation, as is the case with students, there appears in many cases to be little or no meaningful change at academic middle management and lecturer level. The ability to adapt to change is certainly not very easy, because the academics in question may have slipped into a comfort zone dealing, with students who have been exposed to design and related influences as a way of life.

In many cases students are still exposed to racial stereotyped thinking compounding the problem of separateness and cultural insulation. Members of staff in some cases are no different and the fear to change erodes staff morale. The declining staff morale is a factor that cannot be wished away. There is a need to break down the barriers of prejudice based on racial grounds. I have personally been informed by some members of staff from historically advantaged institutions that there is a belief that standards will be lowered, as a result of merging with historically disadvantaged institutions! There is therefore a reluctance to engage in meaningful academic interaction such as co-teaching, common assessment, and an acknowledgement that common outcomes can be achieved based on an integrated cross-campus model.

#### Access and innovation

Historically disadvantaged institutions have a proud tradition of widening access and with the necessary academic support, ensured that the exit level outcomes in respect of the demands of industry are not compromised. It is important to note that many of these institutions passed the Certification Council for Technikon Education evaluations unconditionally, a fact seemingly lost in the age of mergers. Staff support and staff buy-in are important factors when undergoing transformational change. The onus is on academic staff not only to undergo a paradigm shift, but in fact to be innovative and creative in respect of their teaching strategies when dealing, with students who have academic and socio-economic shortcomings.

Issues such as widened access, academic support, teaching and learning strategies, quality assurance and meeting the needs of industry, must be addressed in a clear and coherent manner. There is in addition, the issue of incorporating both the soft and life skills as part of the work-preparedness strategy. The student profile, not only in terms of race, but also in terms of academic depth and resilience is an ever-changing phenomenon. The teaching strategies effective five or more years ago need to be critically reviewed.

Unless we as educators recognize the fact that our learners' reading, time management, academic resilience and general dedication have been diminished, we will be teaching past our learners. Much is being said these days about student-centered learning, but what does it mean and are our teaching strategies and learners ready to embrace such a concept? Given the afore-mentioned, it is quite easy and understandable for some educators to keep to their traditional student recruitment market, in the hope that it will be business as usual.

What is a University of Technology? How is it different from a traditional university on the one hand and an erstwhile Technikon on the other? Will a University of Technology be seen to lower standards

in the league of universities? These are fundamental questions that academics must grapple, with in respect of providing in particular, continuous access to design education. Universities of Technology must build on their technikon experience, and create a niche in the area of technology transfer.

I believe that Universities of Technology have a wonderful opportunity to be innovative in respect of their historical unique relationship with industry and the community it traditionally served. The traditional technikon experiential learning model can be re-curriculated to move closer to the mainstream curriculum in respect of outcomes and assessment in the workplace. Here is an opportunity for action/relevant research on behalf of industry. This is an opportunity for formalized partnerships with industry. "Universities of Technology have produced knowledge and scholarship in applied fields, and particularly in areas of technology innovation, technology management and technology exchange" (Winberg, 2004:3).

I do not believe that Universities of Technology must now raise the admissions bar for the sake of being a university. I firmly believe that Universities of Technology have a moral obligation not to abandon their traditional recruitment market in order to compete, with traditional universities, but instead to continue on a steadfast cause in respect of wider access. They need to be innovative in their teaching and learning strategies, in order to meet the ever-increasing demands of the South African society and in particular the wider African continent.

The creation of technology incubators for small business enterprises is an area that I believe needs to be thoroughly examined and assessed. Universities of Technology have the opportunity to engage in creative on-going and life-long learning. There is ample reason for sound scholarly practice against a background of innovative technology-driven initiatives. The same holds for technology management. Technology must be harnessed to address environmental, health and moral issues. The very nature of Universities of Technology, lend themselves to inter-disciplinary initiatives both internally and externally.

On the one hand entrepreneurship on the other research and a very strong administrative core, which is able to keep a balance between disciplinary excellence and external collaborations. This in turn would lead to a strong position of quality and leadership in a "postmodern" university, where "individual departments and faculties become independent and can follow their own paths, and emphasize certain areas in response to external developments, develop new combinations of research and training." "The university would need to adapt to the changes in the global environment" A University of Technology is "better able to respond to these changes" (Rip & Eijkel, 2004:10-15).

#### Multi-campus management

Some merged institutions are dealing with duplication of programmes on different sites. How does one assure quality and unity of purpose? Different academic and administrative practices across different campuses are in many cases cause for concern and frustration. Reluctance to adapt impacts negatively on initial gains made at the commencement of the merger process. Accessing shared facilities across physically separate sites demands innovative and creative management.

There should be serious attempts made to establish common practices across different sites where necessary. Specific reference is made here to admission and portfolio requirements, and dealing with applications, where there may be second choices. Care should be taken not to create the impression that one site is better than the other, thereby encouraging a skewed enrollment for duplicate programmes.

Marketing strategies and recruitment drives may have to be totally different to what might have been the practice in the past and should be driven by access through transformation. Schools liaison, career exhibitions and similar recruitment drives must have a uniform approach and the institution should project an image of unity and cohesion. Universities of Technology should be able to create their own unique identity in respect of curriculum, teaching and learning strategies, research and their interaction with industry. These should be reflected in the vision and mission statement and inform all subsequent

activities and initiatives of the institution. These core values of integrity, excellence, respect, accountability, ubuntu and equity are some of the challenges that must be managed effectively, with the necessary support from all concerned in the institution.

#### **Quality assurance**

Quality assurance in a merged University of Technology is of cardinal importance especially in view of the fact that duplicate offerings at different sites of delivery must conform to the same outcomes and assessment criteria to name but two. Accreditation includes rigorous valuation by learners (past and present), academia, employers and professional bodies of the following key activities –

- Learner entry and admission
- Learning materials
- Learner support including financial aid, counseling, health and student information systems that inform policy, planning implementation and review at all levels
- · Staffing and resourcing
- Academic staff development practices
- Resource centers (including the library, the Internet and all available electronic media)
- Teaching and learning
- Quality management systems need to be in place both at undergraduate level and for B.Tech,
   M.Tech and D. Tech learning programmes
- Laboratory and field work
- Experiential learning / service learning integrated into academic planning
- Assessment and moderation
- Certification, measures to avoid fraud or illegal issuing of qualifications
- Research
- Community service

(Coetzee, 2003)

There is a need for effective curriculum design taking into account the changing student demographics as a result of mergers. There must be agreement across the different sites of delivery on teaching and learning practices, with specific reference to the teaching philosophy of the institution.

Members of staff have an opportunity given the envisaged diverse student intake' to develop teaching portfolios that are reflective in nature and serve as a basis for innovative teaching and learning strategies. Equity and parity of resources are challenges that have to be met by the merged institutions in such a manner that there is no semblance to the inequalities of the past.

Acceptable academic standards and bench marking across sites of delivery must not be compromised in any manner whatsoever. Similarly, merged institutions must not compromise in their quest to attain high results and student achievement. Assessment, both formative and summative, are structured and an integral part to teaching and learning. "The assessment criteria help to ensure fairness." (Volbrecht, 2006).

The University of Technology is uniquely positioned in its relationship, with industry and the world of work that it is able to provide an active culture of academic research and as a result of this interaction with industry the highest level of technology transfer is achieved.

International linkages are important facets for both staff and student development, as this capacity building would improve the prospects of promotion for University of Technology staff and their ability to disseminate the teacher development work at a higher level within South Africa (Hodges, 2006).

#### Foundation programmes

A greater proportion of school leavers are now in higher education. Ten years ago it was approximately 15%, now it is nearly over 40%. The range of ability within the classes is now considerable, with many students paying increasingly more for their education. Students are more diverse in socio-economic status and in cultural background.

"Today, with this much more diversified student population" a University of Technology is forced to "take a fresh look" (Biggs, 1999: 1-2), at the "problems of student expectations, more learners needing education and intellectual empowerment, poverty, language skilling / writing and communication, and a new electronic / digital technology." (Simon,2006).

This brings me to the need for Foundational provision in a University of Technology.

- To develop the skills that will help the student to function effectively in the workplace.
- To develop a culture of research.

The matter of access via foundation, bridging or access programmes is a very important initiative that needs reviewing. The debate between orientation and discipline specific knowledge is a matter for serious discussion. Tracking of these cohorts through the National Diploma in respect of throughput should be seen as an ongoing initiative informing continuous responses to teaching and learning. Academic support and innovative teaching strategies resulting from the tracking of these cohorts are the basis to measure their ability for a design education through the review process.

"Foundation is about success not access. The Foundation provision is not so much foundation as it is parallel. It is about students doing their first year subjects, but being equipped, with ways in which to better learn about these subjects at an academic level. The student would need to be an independent learner, who will be working with unknown problems, using personal management skills, work as part of a team and be involved in active learning." (Garraway 2006).

The Department of Education has made it clear in their funding document that the funding is for the new model of each individual programmes' application based upon the credit/weighting system, which is a departure from the old budget system. Therefore the allocation of funds is now based upon a consolidated credit bearing programme and number of students. The rationale behind this thinking is to have small groups of students, who would be empowered to cope with the following three years in order to pass and then improve throughput.

In a University of Technology designing a curriculum needs to take into account many variables such as integrated learning, that a "curriculum is more than just content," interactive learning through discussion, group projects and peer teaching as well as experiential teaching such as field trips, hands on practice, and role-playing as well as digital technology and access to new information.

A merger would take the following into account when looking at access of a student to 'lifelong learning', who wishes to study part-time a 'full-time' diploma course over a number of years in the evenings.

- An acknowledgement of prior learning
- Quality of this independent learning
- To gain skills needed for creative/innovative problem solving learning
- Reflection
- Research
- To encourage students to be committed to vocational training

 The student is provided with transferable skills, which are technical, theoretical, critical and analytical

These courses are in response to the need by students, who wish to widen their education.

"Generic programmes suffer the disadvantage of not being able to give focused, meaningful support that discipline-based Foundation programmes (provision) offer." (Jacobs,2002; Weinberg,2002; Wright2002; Wyrley-Birch, 2002:2)

#### Language / communication in a University of Technology

"Language/communication is a "service subject," which is a transferable skill from one context to another. Experience has shown that students do not easily transfer generic skills from one disciplinary context to another," and this leads us to ask the question what is the role of a lecturer in a merged institution?

- "Teaching of the subject 'Communication Skills' in an integrated way, so that it is relevant to the literacy practices of specific disciplines.
- Collaborating with disciplinary specialist colleagues at all levels of a given programme to assist students in accessing disciplinary discourses"

"This dual role would require a language lecturer in each academic department, who would then become an integral part of the day-to-day functioning of that academic department." (Jacobs & Barris 2005). The role of mother tongue education in a tertiary institution is an ongoing debate.

The debate will continue and the question asked "why language and content integration?" in a University of Technology and perhaps the answer lies in the comment made by Crandall, who says that "students cannot develop academic knowledge and skills without access to the language in which that knowledge is embedded, discussed, constructed or evaluated. Nor can they acquire academic language skills in a context devoid of content." (Crandall, 1994 p 256).

"Thus we find that this integrated approach has always aimed beyond second language learning to learning language for academic purposes and beyond language learning to the understanding of content." (Jacobs et al.2002:3).

#### Conclusion

We cannot ignore the national challenges facing us as higher educationists in particular and practicing educationists in general. Academics must accept the realities of change and in so doing show a willingness to transform intrinsically. "This commitment to invest in the 'intellectual capital' of a nation, which to some extent, mirrors the investment in fixed capital and equipment of the past. An investment in higher education and further education is now seen as an investment in the future potential of the nation." (Livingston,1998 p 2).

Transformation must be based on, amongst others, trust and a genuine commitment to change. Professional and academic integrity are at the very heart of this (transformational) renaissance.

There is a need to identify the unique attributes and characteristics of Universities of Technology. The changing profile of students entering institutions of higher learning is a reality that must be responded to in a meaningful and effective manner.

If we do not manage change, then change will manage us...

#### **Bibliographic Citation**

Anon. 1998.MA Design Strategy & Innovation. Brunel University Runnymede Campus: England.

Barris, K. & Jacobs, C.2005. Language / Communication within the New Academic Structure of CUT.

Attachment: Cape Peninsula University of Technology: Bellville. 1

Biggs,J 1999. *Teaching for Quality Learning at University*. Buckingham Maiden Head: Society for research into Higher Education and Open University Press.1

Coetzee,D 2003. Peninsula Technikon: QMS. Combined UTS and HEQC quality model: Draft 1. Cape Town.1-8

Crandell, J 1994. *Content-Centered Language Learning*. University of Maryland: Baltimore County.256 Garraway, J. 2006. *Ian Scott's Foundation Workshop*. Cape Peninsula University of Technology: Cape Town. 2

Hodges, M. 2006. *International linkage project*. Cape Peninsula University of Technology: Cape Town.2 Jacobs, C., Winberg, C., Wright, J., & Wyrley-Birch, B. 2002. *A Guide to Foundation Programmes at Tertiary Level*. Peninsula Technikon: Bellville.

Jacobs, C., Winberg, C., Wright, J., & Wyrley-Birch, B. 2003. *The ABC of Language and Content Integration. A manual for Tertiary Educators.*. Peninsula Technikon: Bellville.

Livingston, A. 1998. *Design Futures: Design Education*. International Seminar Paper: British Council: London: England. 2

Rip, A. & Eijkel, K. J.M. 2004. *Tensions in Universities Having to Accommodate to Global Strategic Science & Technology and to Regional Innovation Systems.* University of Twente: The Netherlands. 10-15

Simon, E. 2006. A Statement on my Teaching Philosophy. Cape Peninsula University of Technology: Cape Town. [unpublished assignment notes.]

Volbrecht, T. 2006. Assessment-Teaching and Learning Resource 3. Cape Peninsula University of Technology: Fundani.

Winberg, C. 2004. *Becoming a University of Technology. Inaugural Professorial Lecture.* Peninsula Technikon: Bellville.3

# Reviewing Design Education: A merger imperative

## **Background**

- A need for the transformation of the design industry
- Token affirmative appointments
- Fast- tracking historically disadvantaged employees
- Cosmetic change and implicit tokenism
- Guard against suspicion and over-sensitivity

## The need for transformation

- Profile of emerging tertiary institution graduates
- Pre-requisite entry subjects
- Design education in former Model-C schools
- Historically disadvantaged's continued under-exposure to design

- Focus schools
- Need for adequately trained design school teachers
- Middle management and lecturer change
- Racial stereotyped thinking
- Staff morale
- Lowering of standards through mergers

#### Access and innovation

- Widened access
- SERTEC accreditation
- Staff commitment
- Innovative teaching and learning strategies
- Academic support
- Quality assurance
- Needs of industry

- Soft/life skills
- Lack of sufficient academic depth and resilience
- Reading and time management skills
- Student recruitment strategies
- Definition of a University of Technology
- Technology transfer

- Workplace outcomes and assessment
- Action/relevant research
- Technology incubators
- Entrepreneurship
- Disciplinary excellence

## **Multi-campus management**

- Duplication of programmes
- Adaptability
- Shared facilities
- Common/best practices
- Admission and portfolio requirements
- Marketing
- Vision and mission
- Core values

## **Quality assurance**

- Quality assurance mechanisms (HEQC)
- Common outcomes and assessment criteria
- Accreditation
- Curriculum design

- Teaching philosophy
- Teaching portfolios
- Equity and parity of resources
- Formative and summative assessment
- Relationship with industry and the world of work
- International linkages

## **Foundation programmes**

- Growth in higher education
- Student expectations
- Foundational provision
- Orientation vs discipline specific
- Success not access
- Active/interactive/integrated learning
- Widening of education

## Language/communication in a University of Technology

- Integration of language skills with discipline content
- Co-teaching
- Access to academic knowledge via language skills

## Conclusion

- Intrinsic transformation
- Pillars of transformation
- If we do not manage change, then change will manage us