RETHINKING, TRANSFORMING AND CHANGING EDUCATION IN THE 21ST CENTURY

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ABSTRACT

This is a position paper that reflects on the compulsive ideas pertaining to: rethinking, changing, and transforming our educational ecology. Transformation and change in education are so much hyped about to the extent that sometimes there is lack of clarity about them as critical concepts in the field of education. The paper begins with clarification of key concepts commonly used in the discussion. The discussion progresses to share criteria for educational standards, whose absence or presence account for quality education or lack of it. Rethinking, transforming and changing the *status quo* is a task of greatest magnitude, hence no easy matter, and to tackle it, the paper is guided by these questions:
a. Where do we begin?
b. How can systematic transformation be brought about?
The key aspects covered include the background to education in traditional African communities. The article is inclusive by taking into account participation by citizens, especially along gender considerations. It highlights some of the reasons for the low education uptake and output in Africa, as well as the challenges of transformation in Southern Africa. The ideas are based on research, which was carried out by the Southern African Regional Universities.

Keywords: Rethinking, Transforming, standards.

Our grounding ideas

Three concepts, qualifying the main one of *Education* are accentuated in the theme, and these are: *Rethinking, Transforming,* and *Changing.* What significance do they inspire in educationists? Put simply:
Rethinking means thinking again about the way education is provided in our respective environments.
Transforming simply means making a thorough or dramatic change in the form and appearance of our education systems.

Change is something that presses us out of our comfort zone.

In sum, the objective of this position paper is to reflect on the compulsive ideas pertaining to: rethinking, changing, and transforming our educational ecology. The challenge, however, is: Where do we begin? First of all, we are all aware that there are certain expectations we have about education that are missing in the way our education systems operate – right from primary through to university levels. The concern is with the common word: STANDARDS. This term can be unpacked to include a host of elements:
- quality of qualifications,
- limited access,
- gender inequalities,

- limited resources,
- unemployable graduates,
- curricula that are non-compliant,
- limited research capacity,
- inability to maximize the potential of open and distance learning (ODL),
- politics and militarization of institutions of education,
- embezzlement of funding meant for education, to name but a few.

Therefore, the need for rethinking, transforming, and changing cannot be overemphasized.

Organisational Upheaval

In his powerful book, *Future Shock,* Alvin Toffler (1975:27) narrates the following story:

Early in March 1967, in eastern Canada, an eleven-year-old child died of old age.
Ricky Gallant was only eleven years old chronologically, but he suffered from an odd disease called progeria – advanced ageing – and he exhibited many of the characteristics of a ninety-year-old person. The symptoms of progeria are senility, hardened arteries, baldness, slack and wrinkled skin. In effect, Ricky was an old man when he died, a long time of biological change having been packed into his eleven short years.

Obviously, this is a rare disease, yet metaphorically, in the high technological societies, many organisations suffer from progeria in the face of inevitable change.

- Curricula may not respond to the job market
- There is limited research culture in the institutions
- The drop-out rate of learners at primary and secondary school levels remains phenomenally high
- The girl child tends to have limited access compared to the boy child
- There is limited access to technology and other resources
- Institutions operated mostly by undertrained personnel both at leadership and operational levels
- Limited government funding
- Political interference

Relations break down, conflicts escalate, actual resignations occur, unpronounced resignations happen even though they may not be pronounced by employees who continue to work for the organisation, the leader and managers perceive issues differently, and the result? Failure to achieve goals, organisational stagnation and turbulence. But why is this so; and why should it be so?

The brief background

There are explanatory factors, which scholars would be aware of. Allow me to briefly revise this with you so that we are on train regarding education in general, but education in Africa and Southern Africa, in particular.

Education in traditional African communities began as a tool to prepare the local youth to take their place in their respective societies and not necessarily for life outside of Africa. In

some areas, the pre-European colonialism schooling system consisted of groups of older people teaching aspects and rituals that would help them in adulthood. In other areas, education in early African societies included such things as artistic performances, ceremonies, games, festivals, dancing, singing and hunting. Boys and girls were taught separately to help prepare each sex for their adult roles.

When European colonialism and imperialism took place it began to change many indigenous education systems. Schooling was no longer just about rituals and rites of passage, school would now mean earning an education that would allow Africans to compete with countries such as the United States and those in Europe. Africa would begin to try producing their own educated students as other countries had.

Education participation rates in many African countries are low. Schools often lack many basic facilities, and African universities suffer from overcrowding and staff being lured away to Western countries by higher pay and better conditions.

Participation

According to UNESCO's *Regional overview on sub-Saharan Africa* (2000), only 52% of children were enrolled in primary schools, the lowest enrollment rate of any region. UNESCO also reported marked gender inequalities: In most parts of Africa there is much higher enrollment by boys. The USAID Centre (2005) reports that Africa has more than 42 million children receiving no schooling. Two-thirds of these are girls. The USAID Center goes on to note that 40% of school-age children in Africa do not attend primary school, and there are still 46 million school-age African children who have never stepped into a classroom. We must rethink!

The regional report produced by the UNESCO-BREDA education sector analyst team in 2005 indicates that less than 10% of African children are now allowed in the system. Four out of 10 children did not complete primary school in 2002/2003. So, five years after the World Education Forum and the adoption of the Millennium Goals, progress at primary level is far from decisive. We must re-think and direct attention to reducing the number of dropouts per level. It appears also that geographical disparities (rural areas/urban areas) or economic disparities (low income households/wealthy households) are equally significant and take longer to even out.

This negative background right from primary school level, bears a negative impact on subsequent levels, namely, secondary and tertiary. If we are to re-think in a more directed manner we need to re-echo some of the reasons for the state of affairs. Which ones readily come to mind?

REASONS
Lack of proper facilities and educators

The main reason for the low education rates in Africa is the lack of proper schooling facilities and unequal opportunity for education across countries. Many schools across Africa find it hard to employ teachers due to the low pay and lack of suitable people. This is particularly true for schools in remote areas. Most people who manage to receive education would prefer to move to big cities or even overseas where more opportunities and higher pay await them.

Many university lecturers struggle to liberate themselves through research against a background of poor state funding.

Emigration

Emigration leads to a loss of highly educated people and financial loss. The loss of skilled people can only be replaced with another huge cost which implies further expenditure educating people who leave, and new people to replace them (Novicki, 2011).

Military and conflict

Military spending is causing education spending to decrease immensely. According to a March 2011 report by UNESCO, armed conflict is the biggest threat to education in Africa. While the number of dropouts across the continent has been increasing dramatically, one of the influences of war and conflict on education is the diversion of public funds from education to military spending. An already underfunded system is losing more money. Twenty-one African countries have been identified as the highest spenders of gross domestic product on military globally compared with the amount directed toward education. Military and conflict also lead to the displacement of children. It often forces them to remain in camps or flee to their neighboring countries where education is not available to them ("War Hurting Learning in Continent")

Corruption in education

A 2010 *Transparency International report*, with research gathered from 8,500 educators and parents in Ghana, Madagascar,Morocco, Niger, Senegal, Sierra Leone and Uganda, found that education is being denied to African children in incredibly large numbers. A lack of parent involvement, especially as an overseer of government activities, also leads to enormous corruption. This was most often found to be because parents and communities feel as though they lack any kind of power in regard to their child's education. *Transparency International Report* came up with findings that showed corruption in three areas:
- Illegal collection of fees
- Embezzlement of school funds (lack of financial records)
- Power abuse (incompetent management)

Disparity in education

While most of the Millennium Development Goals face a deadline of 2015, the gender parity target was set to be achieved a full ten years earlier - an acknowledgement that equal access to education is the foundation for all other development goals UNICEF(http://www.unicef.org/mdg/gender.html)
Gender disparity is defined as inequalities of some quantity attributed to the reason of gender type. In countries where resources and school facilities are lacking, and total enrollments are low, a choice must often be made in families between sending a girl or a boy to school (UNFPA, 2011 - United Nations Population Fund). Of an estimated 101 million children not in school, more than half are girls (UNICEF-http://www.unicef.org/education/index_access.html). However, this statistic increased when examining secondary school education. In high-income countries, 95% as many girls' as boys' population attend primary and secondary schools. However, in sub-Saharan Africa the figure is just 55%. (Geeta, Learningchannel.org.)

The foregoing five pointers refer to the current situation in primary, secondary and tertiary education. We now shift attention to tertiary education, having said a bit about pre-tertiary circumstances.

Higher Education Challenges in Southern Africa

MacGregor (2009) shares the findings of a study of higher education in 15 countries of the Southern African Development Community, SADC, which identified 20 challenges facing the region, governments and institutions. The challenges identified, says a just-published report of the study, show the considerable amount of work needed to build a strong and sustainable higher education system across the region.

The Southern African Regional Universities Association (SARUA), the organisation representing vice-chancellors of public universities in SADC, commissioned several studies in 2008 designed to provide baseline information on higher education in Southern Africa.

The Southern African Regional Universities Association (SARUA)
Some findings

The SARUA research found that SADC has 66 public universities, 119 publicly-funded polytechnics or colleges and 178 private universities or colleges.

South Africa has 23 of the public universities and 70% of overall enrolments in the region. Six of the 15 countries - Angola, Lesotho, Namibia, Sychelles and Swaziland - have a single public university each. In other countries, numbers range from two in Malawi, Botswana and Mauritius to nine in Zimbabwe. Zambia has three public universities, Democratic Republic of the Congo and Mozambique have four, Madagascar has six and Tanzania has eight. New universities are being developed.

Private higher education institutions outnumber public institutions in all SADC countries but most enrolments are in public institutions and 72% are in contact study. Botswana has one of the highest number of private tertiary institutions, considering its small population.

SADC has very low gross tertiary enrolment ratios - the proportion of 18- to 24-year-olds in post-secondary education - according to the SARUA research. Most countries fall into the 2-4% range. Only Mauritius (16% in 2005) and South Africa (14%) have tertiary gross enrolment ratios of above 8%. In comparison, the world-mean on this statistic for lower and middle-income countries currently stands at 19%.

The report points out that the notion of regional cooperation in higher education in Africa is not new. The earliest agreement was the 1981 Arusha Convention on the recognition of qualifications. However, not much progress has been made to date on any of these policy commitments, despite there being little quarrel with the underlying rationale of cooperation for system development and enhancement.

The challenges

SARUA recognizes that there are challenges, and lists 20 of them. The organization urges countries to work towards the revitalisation of higher education in Southern Africa, and to develop the systems so that they can contribute to regional upliftment more broadly.

1. Data collection and availability

There is a lack of data on higher education in countries and in the region. "Accurate and comparable data are essential for system planning, for understanding where capacity lies and where it is lacking, for research and for collaboration efforts.

2. Access

There are just over a million higher education students in SADC countries, the SARUA research found, more than 70% of them in South Africa. Although enrolments have grown rapidly in the past decade, there has not been a commensurate increase in resourcing and student access remains too low across the region.

3. Postgraduate registrations

There are around 57,700 masters and 10,600 doctoral students in SADC, most of them in South Africa. Postgraduate registrations are thus critically low through much of the region, impacting on high-level skills available.

4. Student success

There are low overall graduation numbers, particularly at postgraduate level - just over 180,000 degrees awarded, around 1,300 at doctoral level. Success rates for the region are 15% for undergraduate programmes, 40% for postgraduate diplomas, 20% for masters degrees and 13% for doctoral degrees. There is an acknowledged need to improve graduate outputs and the throughputs of individual degrees.

5. Staffing

There is a critical shortage of qualified staff throughout SADC. There are some 32,500 academic and research staff (13,600 outside South Africa). The main reasons are lack of resourcing, poor working conditions and lack of facilities for research - exacerbated by a brain drain and the impact of HIV-Aids. Only 26% of academics have PhDs, and there are gender imbalances in staffing.

6. Funding

Higher education in SADC has been under-funded for decades. Funding is now increasing but systems still face severe constraints. At the same time, student numbers are increasing. Quality has suffered. Countries have different funding arrangements but most universities remain heavily dependent on state funding.

7. Planning capacity

The links between planning and budgeting for higher education are not explicit in many countries and only South Africa uses a funding formula to give weight to planning priorities and to steer the system. It is crucial to develop the capacity to plan higher education and to manage its financing.

8. Infrastructure and space

There are severe infrastructure constraints in most institutions, affecting the capacity for teaching and research and limiting student access. Lack of research infrastructure may be a primary contributor to the brain drain of scientists.

9. Private provision

This is a means to address capacity constraints as the sector has grown rapidly. Private provision is often fee-paying and attracts students unable to access the public sector, raising concerns about equity. In many countries, frameworks to monitor private providers are absent and there are questions whether they serve skills needs, as well as about quality and sustainability.

10. Commercialisation and entrepreneurialism

Lack of funding is driving institutions and individuals to supplement their incomes. Usually, profit-driven institutions tend to focus more on high numbers in order to increase revenue.There are many forms of commercialisation, including teaching arrangements, contract research, and the commercialisation of research.

11. Research development

Research output is low and is a major challenge. South Africa produces 79% of research and its output of articles per million of the student population is 119.3. Botswana follows at 85.5 but no other country has figures above 40. Output has been increasing since 1990 - in seven countries by 100% or more - but SADC is not keeping pace with world research growth.

12. Mobility

Staff and student mobility in SADC is seen as key to achieving many goals of regional higher education - especially developing a community of scholars through staff exchanges and visits that could provide support for staff in fields where capacity is low and help to maximise use of expertise. Mobility might help to share capacity, reduce duplication, develop a regional identity and promote cultural understanding.

13. Quality

Assuring quality is the key to achieving policy goals such as student and staff mobility and qualification portability, regulating private provision, qualification equivalence frameworks, and increased cooperative teaching. SADC has done the groundwork in establishing current practices and proposing a strategy for the region.

14. Qualification frameworks

Qualification comparability is an objective of SADC and necessary to achieve mobility, credit transfer and student access. SADC has a vision for a regional qualifications framework but progress towards its adoption has been slow, impeded by the lack of strong national quality assurance systems.

15. Curriculum

Curriculum relevance must be high on the SADC agenda. But university education must not be seen as purely serving the needs of the labour market while 'standardisation' of curricula is likely to lead to system weakness. The focus should be on staff development and cooperation: A model should be sought in which there is strong developmental collaboration over specific curricula.

16. Information and communication technologies

Available bandwidth has grown in SADC but universities continue to experience critical constraints and have gaps in their ICT infrastructure and systems deployments. Access to computers is still low - in 2007, on average four lecturers per computer, three administrative staff per computer, and per 70 students per computer - and progress in developing research and education networks has been slow.

17. Policy and planning

To give effect to supra-national policy agreements, it is necessary to develop new and aligned regional and national policies and goals for higher education. It is essential to develop governance mechanisms at regional, national and institutional levels, as well as a critical mass in infrastructure and capacity, and to identify areas of national and regional strength so as to enhance regional collaboration. There is an acknowledged need to establish high-level policy forums to advise governments on national policy issues.

18. Engagement

Greater understanding is needed of the place of community engagement in higher education in SADC, as well as the types, purposes and good practices of current engagements, so as to meet the challenges of playing a renewed development role. African universities need to find ways of being responsive and engaged in a manner best suited to key stakeholders within a given country African conditions.

19. Cooperation

Regional cooperation in higher education has been proposed as a means to overcome the legacies of poorly-funded systems and to enhance institutional performance, and is agreed at

a political level as well as among institutions. There are collaborative projects underway, but too little is known about their extent and success and they face many challenges.

20. Leadership

There are sufficient commonalities between higher education systems to suggest that some governance, leadership and management challenges are not unique to individual countries. There could be benefits in learning from other countries, and leadership at a regional level will be critical in forging strategic collaboration. Changes in management practices have not been as profound in SADC where challenges are often a continuation of years of under-funding, poor infrastructure and insulated systems. But increasingly it is acknowledged that traditional models are no longer sufficient to position the sector for its role in national development. Developing leadership capacity will be the key to achieving goals as diverse as poverty reduction and participating in the knowledge economy.

"Achieving the aim of revitalising higher education will require a leadership strategy that incorporates governments, the private sector and institutions," says the SARUA report.

Transformational Leadership

Leaders should, of necessity:

- exercise entrepreneurship,
- apply change management skills,
- be innovative,
- encourage creative participation of those they lead,
- network with like-minded institutions, and
- benchmark.

However this wish list is only possible when funding permits.
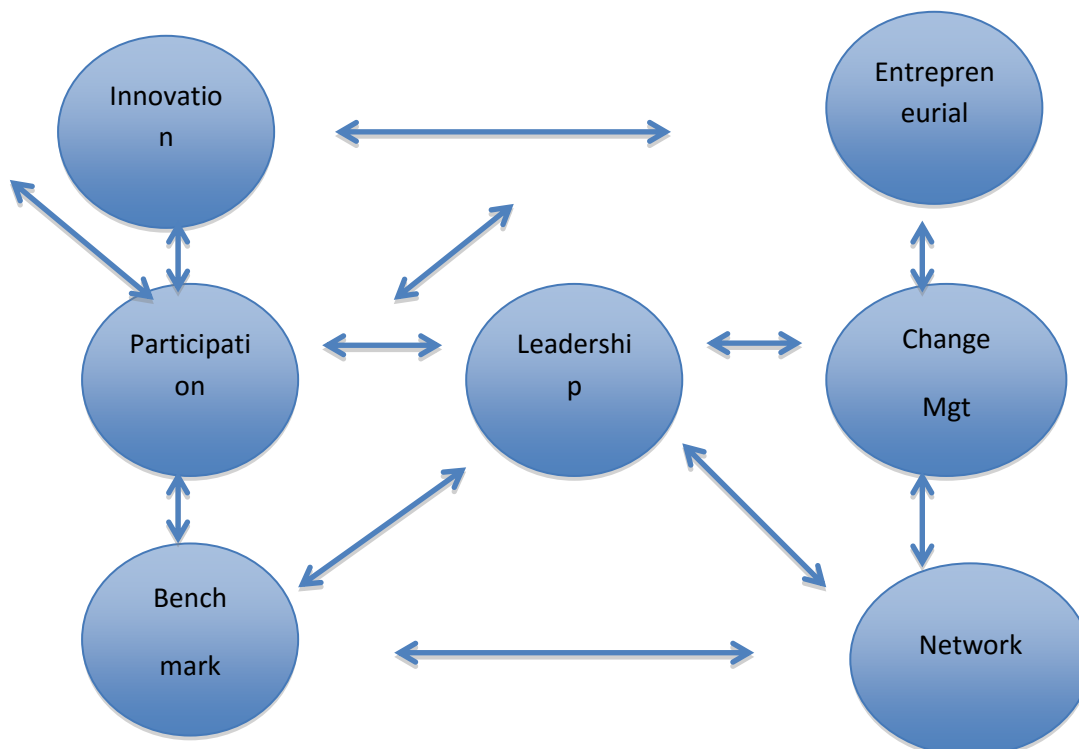
Figure 1 Elements of transformational leadership

The double arrows signify the inseparability and interrelatedness of the six elements associated with transformational leadership. At the centre is the leader of a particular organisation, the environment in which change management, innovation, entrepreneurship, inclusive participation, management, and entrepreneurship are manifested. It is within this paradigm that benchmarking, and networking are exercised in order to cause transformation to happen.

The Potential of ODL

The last two decades have seen considerable growth in education and training. But the world still suffers from intolerable inequalities at the international level and within nations. Many countries are struggling with limited access to education and training for children and young people, and at the same time have to address the basic needs of an older generation. Conventional education, as we know it to have been practiced over the centuries, seems to have failed to meet the increasing demand for qualifications, hence the emergence of ODL, and ideas closely related to it.

Jeffries *et al.* (1990) define open learning as: "Any form of learning in which the provider (e.g. an institution or organization running a training scheme) enables individual learners to exercise choice over any one or more of a number of aspects of learning. Typically this involves helping learners take responsibility for aspects such as what they learn, how they learn, where they learn, how quickly they learn, who to turn to for help and, when and where to have their learning assessed."

Open education can be defined as a system of education that does not operate through traditional conventions (cf. Gunawardena, 2004). As an example, open education is not restricted to the four walls of a classroom.

A few thoughts on open learning and distance education

The terms open learning and distance education represent approaches that focus on opening access to education and training provision, freeing learners from the constraints of time and place, and offering flexible learning opportunities to individuals and groups of learners. Open and distance learning is one of the most rapidly growing fields of education, and its potential impact on all education delivery systems has been greatly accentuated through new developments in information and communication technologies.

As an alternative to conventional practices, ODL has demonstrated its potential in a number of ways:
- It is technology mediated, and transaction occurs across distances
- Technology has made it possible to reach students in all corners of the world
- It has transformed the role of the conventional classroom teacher, since one teacher can reach thousands synchronously online
- Though expensive to set up initially, it is cost-effective in the long run
- By nature, it promotes teamwork among practitioners

Its cost-effectiveness is visible in
- teacher-pupil ratio,
- learners not having to leave work and enroll in expensive institutions away from home,

- Benefits from sharing resources in community establishments,
- students can study anywhere any time without being constrained by a timetable,
- there is no age restriction

Stigma and theoretical grounding

Distance education has been stigmatized on the following account, namely, that:
- its qualifications are of lesser quality than the conventionally acquired ones;
- there are fewer experts to teach in ODL institutions, especially in developing countries;
- because of the geographical spread of learners, it is difficult to monitor and impose academic standards as would happen in a conventional set up;
- it is an avenue for failures;
- students are isolated, therefore, cannot learn social skills; and
- it is under-researched and depends on educational theories established in the conventional system.

As an emerging field, ODL is on its way towards firm establishment. Benefiting from theoretical views from conventional system, it continues to develop its own, for example:

Name	Theoretical Contribution
Charles A. Wedemeyer (1977)	Independent study Continuing education Open learning
Michael G. Moore (1973)	Distance a function of dialogue and individualization Learner autonomy
Otto Peters (1973)	Distance education: an industrialized form of teaching and learning
Borje Holmberg (1981)	Guided didactic conversation
John A. Baath (1980)	Significance of two way communication
David Sewart (1980)	The human element in an industrialized form of learning and teaching
Hoffman, D. (2004)	Annihilation of distance through technology

Nevertheless, ODL remains in need of further research in these areas:
1. Concept, growth and development.
2. Curriculum/course planning and development
3. Instruction/ teaching
4. Media and technology
5. Learners and learning
6. Institutional policy and management
7. Economics of distance education
8. Evaluation of a phenomenon
9. Staff development
10. Research and scholarship

The Potential of Research

Research has been variously defined by many scholars (e.g. Tuckman, 1972; Hammersley, 1983; Cookson, 2002; Thomas, 2009) as a systematic attempt to provide answers to questions. Such answers may be abstract and general. In research, the investigator uncovers facts, and then formulates a generalization. Based on that, research will:

- aim to find new knowledge,
- be thorough,
- be balanced,
- be fair, and
- be ethical.

It is arguable that Academic research is the cornerstone of meaningful education Let me conclude with some thought by one of the first leaders in post-colonial Africa. In one of his seminal papers on "Education for self-reliance" Nyerere (1967, p. 3) has this to say:

> . . . we have not until now questioned the basic system of education which we took over at the time of independence. We have never done that because we have never thought about education except in terms of obtaining teachers, engineers, administrators, etc. Individually and collectively we have in practice thought of education as training for the skills required to earn high salaries in the modern sector of our economy. It is now time that we looked again at the justification for a poor society like ours spending almost 20 per cent of its Government revenues on providing education for its children and young people, and begin to consider what that education should be doing. . . The educational systems in different kinds of societies in the world have been, and are, very different in organization and in content. They are different because the societies providing the education are different, and because education, whether it be formal or informal, has a purpose. That purpose is to transmit from one generation to the next, the accumulated wisdom and knowledge of the society, and to prepare the young people for their future membership of the society and their active participation in its maintenance or development.

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