Sustainable Transformation in African Higher Education

Research, Governance, Gender, Funding, Teaching and Learning in the African University

Felix Maringe
University of the Witwatersrand, South Africa

and

Emmanuel Ojo (Eds.)
University of the Witwatersrand, South Africa

The book is a must read for policy makers, academics, university administrators and post graduate research students in the broad field of education and in higher education studies in particular. The book brings together a wealth of information regarding the imperatives of transformation in Africa’s higher education systems. Not only do some of the chapters provide critical discussion about the conceptualisation of transformation, the majority of the chapters reflect on empirical evidence for transformation in diverse fields of mathematics, science, gender, the training of doctoral students and the governance and management of universities. This central theme of sustainable change and reform runs across the chapters of the book.

For students, the book provides exemplars of practical research in higher education. For scholars in higher education and policy makers, specific issues for reform are identified and discussed.
Sustainable Transformation in African Higher Education
Sustainable Transformation in African Higher Education

Research, Governance, Gender, Funding, Teaching and Learning in the African University

Edited by

Felix Maringe and Emmanuel Ojo
University of the Witwatersrand, South Africa
# TABLE OF CONTENTS

Introduction vii

## Section 1: Higher Education Research and Development

   *Adams O. U. Onuka*  
   3

2. Sustainable Transformation in a Rapidly Globalizing and Decolonising World: African Higher Education on the Brink  
   *Felix Maringe and Emmanuel Ojo*  
   25

3. Graduate Output in Nigeria Tertiary Institutions: The Imperative Question for Sustainable Transformation  
   *Florence Aduke Adebayo and Adebusola Tope-Oke*  
   41

   *Felix Maringe and Elizabeth Spiwe Ndofirepi*  
   53

5. Repositioning Universities in Nigeria to Tackle the Challenges of Research and Development  
   *Paul Emeka Okeke and Isunueo Benedicta Omeghie*  
   65

## Section 2: Issues and Governance in Higher Education

6. A Brief Review of Governance Reforms in Higher Education in Nigeria  
   *Idowu Olayinka, Segun Adeleji and Emmanuel Ojo*  
   77

7. Sustainability of Higher Education Credit Systems and Transfer Structures Experiences from Australia, South Africa and the United States of America  
   *Fulufhelo Netswera, Kirstin Wilson, Nathan Cassidy and Godswill Makombe*  
   91

8. Towards Effective Mentoring of Staff in Higher Institutions of Learning in Nigeria  
   *Mubashiru Mohammed, Musiliu Dada Rufai and Yahya Lateefat Oludare*  
   101

9. The Challenges of Xenophobia and Terrorism for the Development of Higher Education in Africa  
   *Ademola Pius Adebis and Alaba Akinsola Agagu*  
   115
## TABLE OF CONTENTS

### Section 3: Gender, Funding and Financing in Higher Education

10. Unintended Consequences: The Implications of Gender & Ethnic Imbalance in the Chief Information Officer Position at Universities  
   *Reuben Dlamini*  
   129

11. Push and Pull Factors in Women Attainment of Chief Executive Positions in South-West, Nigeria  
   *Muyibat A. Olodo and Benedict O. Emunemu*  
   145

12. Financing Higher Education in Nigeria: A Demand Perspective  
   *Oluwakemi B. Okuwa and Omolara A. Campbell*  
   159

13. A Sustainable Funding Model for the Nigerian Public Education Sector  
   *Adams O. U. Omuka*  
   173

### Section 4: Higher Education Teaching and Learning

14. Challenges of Teaching and Learning Science at a Distance in National Open University of Nigeria  
   *Marcellinus Anaekwe and Chibuogwu Nnaka*  
   189

15. Integrating Electronic Technologies in Mathematics Teaching and Learning: A Case Study of the University of the Witwatersrand, South Africa  
   *Judah Makonye*  
   203

16. Computer Accessibility, Usage and Lecturers’ Perception of Innovative ICT-Based Assessment in a Nigerian University  
   *Adetoun Idowu, Mary Esere and Betty-Ruth Iruloh*  
   215

17. Reflections on and within a Mentoring Programme for Academic Staff Enrolled in a Post Graduate Diploma in Higher Education  
   *Laura Dison and Moyra Keane*  
   227

About the Contributors  
239
INTRODUCTION

THE PROCESS LEADING TO THIS BOOK

This book summarises the research presented by members of the Higher Education Research and Policy Network (HERPNET) at their 10th Annual Conference held at the WITS School of Education in 2015. The theme of the conference was sustainable transformation and higher education in Africa. Thirty two papers were presented individually and jointly at the conference.

As editors, we developed a proposal which was accepted by Sense Publishers and started working with the authors of the chapters on their submissions. We identified two highly experienced and research active scholars both based in universities in South Africa and in Botswana to conduct independent blind and rigorous reviews on each of the articles. Each of the reviewers made comments to all of the papers. Authors made the required revisions and the papers were sent back to the reviewers for a decision to accept or reject. The entire process yielded 17 chapters which were accepted to be part of this book.

THE CORE ARGUMENT OF THE BOOK

The book makes the assumption that transformation of higher education in Africa is non-negotiable. On one hand, the forces of globalisation require new ways of knowledge creation/generation including partnership working in our universities. On the other, right across the continent, there is increasing discontent that the higher education inherited from colonial past cannot deal adequately with the developmental challenges of poverty and disadvantage characterizing the African continent. The argument is that a prelude to transformation in Africa is the need to decolonise higher education.

THE ORGANISATION OF THE BOOK

The book is organised in four broad sections each with four or five chapters.

Section 1: Higher Education Research and Development

In Chapter 1, Adams O. U. Onuka provides a broad perspective of the notion of transformation in higher education arguing that transformation needs to be guided by the principles of quality. He contends that African universities are no longer meeting the global standards of higher education and identifies several challenges these universities face. Arguing for a holistic approach to quality assurance in education, Onuka argues that sustainable transformation in African higher education cannot
happen unless efforts are made to improve the quality of primary and secondary education, teacher training, digital applications, stakeholder participation, funding mechanisms and partnership working.

In Chapter 2, Felix Maringe and Emmanuel Ojo provide a critical review of the broad concepts of transformation using theoretical models from a variety of sources. They argue that transformation needs to be preceded by a process of decolonisation of higher education and in the process offer a range of strategies that could guide this process.

Florence Aduke Adebayo and Adebusola Tope-Oke in Chapter 3 provide a country level analysis of graduate output arguing that doctoral level learning needs to be increased significantly in order to strengthen the research capacity of our universities.

Chapter 4, authored by Felix Maringe and Spiwe Ndofirepi, pursues the notion of doctoral learning in universities arguing for its transformation in terms of its purposes, the content, assessment strategies. As the next generation of scholars doctoral students need to be equipped with new forms of knowledge generation.

In the final chapter of this section (Chapter 5), Paul Emeka Okeke and Isunueo Benedicta Omeghie write on the requirements for repositioning universities in Nigeria to tackle the challenges of research and development. The findings of the study revealed that inadequate funding of universities; over engagement in basic and applied research rather than experimental research and lack of collaboration between universities and various economic agents among others, have hindered the universities from becoming the springboard of development in Nigeria.

Section 2: Issues of Governance in Higher Education

This section comprises four chapters.

In Chapter 6, Idowu Olayinka, Segun Adedeji and Emmanuel Ojo review the state of governance and governance reforms in higher education. The authors offer explanations on how the changing economic, social and political situations in Nigeria have combined to create needs for constant innovations and reforms in higher education. To achieve sustainable transformation in higher education in Nigeria therefore, its educational system must be highly responsive in terms of access, teaching/learning, financing, and management/governance.

In Chapter 7, Fulufhelo Netswera, Kristin Wilson, Nathan Cassidy and Godswill Makombe write about the sustainability of credit systems and transfer structures in higher education. The chapter provides a comparative perspective using data from Australia, South Africa and the US and makes recommendations for planning national and international credit transfer mechanisms.

In Chapter 8, Mubashiru Mohammed, Musiliu Dada Rufai and Yahya Lateefat Oludare suggest that mentoring is a key strategy for transforming the human resource elements of Africa’s universities. The chapter identifies the challenges
faced by those who try to use mentoring and makes suggestions about how these challenges might be ameliorated.

The final chapter in this section (Chapter 9), written by Ademola Pius Adebisi and Alaba Akinsola Agagu, situates xenophobia as the curse of development in many countries across the continent. The authors recommended a framework for stemming the tides of xenophobia and terrorism with a view to promoting the development of Higher Education in Africa and by extension the overall sustainable development of the continent.

Section 3: Gender, Funding and Financing Higher Education

This section has four chapters.

Chapter 10 authored by Reuben Dlamini examines unintended gender consequences in relation to the appointment of chief information officers in universities. In this chapter, he argues that sustainable development serves as a tool of addressing structural and historic discrimination which must be eliminated to avoid the risk of undermining further international norms and standards on gender equality. Equally important is the argument on gender inequality which creates social exclusion and unsustainable patterns and has serious repercussions to social constructs and power distribution.

In Chapter 11, Muyibat A. Oloso and Benedict O. Emunemu examine the push and pull factors that relate to women’s climb to the position of Chief Executive officer in universities. The chapter contributes to the debates around the key role that female leaders can make in a transforming higher education system and identifies both the facilitators and constraints to the deployment of females to this role.

In Chapter 12, Oluwakemi B. Okuwa and Omolara A. Campbell tackle the notion of financing higher education for sustainable development and come up with a range of pro poor funding suggestions that would help administrators and decision makers in various contexts.

The final chapter in this section also deals with issues of sustainable funding models in higher education in Nigeria. In this chapter, Adams O. U. Onuka suggests that governments should not disinvest in higher education but rather increase their contribution to a minimum of at least 20% of its entire annual budgets to the sector funding requirements. It equally proposes the merger of some parastatals in Ministries of Education and outright scrapping of TETFund so that money accruing from the implementation of the proposal could be domiciled in the various public education institutions for effective utilisation.

Section 4: Higher Education Teaching and Learning

This section has four chapters.

In Chapter 14, Marcellinus Anaekwe and Chibuogwu Nnaka argue for the role of distance learning as a strategy for enhancing the sustainability of higher education
INTRODUCTION

in Africa. They identify a wide range of challenges this sector and provide tentative solutions.

Judah Makonye in Chapter 15 writes about the integration of electronic technologies in mathematics teaching and learning. He argues that higher education with not enhanced technologies will not be sustainable on the continent as elsewhere in the world.

Adetoun Idowu, Mary Esere and Betty-Ruth Iruloh discuss the centrality of computers in higher education and raise issues of accessibility in Chapter 16. Effectively they suggest that unless nations solve the issues of accessibility, higher education will remain the preserve of the privileged.

The final chapter (Chapter 17) was authored by Laura Dison and Moyra Keane on the realities to mentoring in HE, based on reflections of academic staff who were undertaking a post graduate diploma in higher education. In the chapter, the authors discover that students are generally happy with the quality of mentoring they receive on the course and suggest that teaching and learning has to embrace the notion of mentoring in order to more meaningfully transform the human resources across universities.
SECTION 1

HIGHER EDUCATION RESEARCH AND DEVELOPMENT
ADAMS O. U. ONUKA

1. AFRICAN HIGHER EDUCATION TRANSFORMATION FOR QUALITY OUTCOME

A Holistic Mechanism

ABSTRACT

Higher education institutions (HEIs) provide the highest level of education. The African higher education (HE) quality seems to have fallen short of the global standard. Therefore, the need to transform its HE system for global quality outcome becomes imperative. Higher education provision for Africans which began on other continents, gradually devolved to the continent. African political emancipation led to sudden expansion in the number of institutions without commensurate infrastructural increase culminating sub-standard HE provision. The chapter highlights some challenges inhibiting quality of HE on the continent and proffers some feasible holistic mechanism for transforming African HE for quality outcome. The holistic approach encompasses remediation of the faulty educational foundation at primary and secondary levels, teacher development, digital application, effective stakeholders’ participation, all stakeholders’ involvement in funding and management, mentorship, continuous M & E, collaboration among African HEIs, and between HEIs and industries.

Keywords: Higher education, Higher education institutions, Quality higher education, Holistic mechanism, HEIs-Industry partnership.

INTRODUCTION

Higher education climaxes education acquisition, making it desired by every citizen who wishes to contribute meaningfully to national development. The principal objective of higher education (HE) is to develop and equip humans to be agents of the development to make them to contribute maximally to societal and global development. Because the world is dynamic, the higher education sector must be also to meet contemporary development needs. Thus, the HE system must always undergo change process. A sustainable innovative change would transform the HE sector for quality provision. The HE sub-sector should take the lead in the transformation process without neglecting the nursery, primary and secondary sub-sectors. Transformation of HE system also manifests in a sustainably added value, and also in the use of new technologies and methods to do the business of
higher education provision. A holistic transformation of HE system must begin with transformation of other tiers of education.

Onuka (2004) submits that development is for, and done by man. The Nigerian National Policy on Education document (Federal Republic of Nigeria [FRN], 2013) used throughout Nigeria, succinctly states that education is the pivot for national and human development. The impetus for human to design and implement developmental programme is the provision of quality higher education. For Obanya (2015), education is the foundation for sustainable human development, averring that learning which education provides can be incidental, informal, non-formal and formal, and that education is not only lifelong but also life-wide. In other words, Education should be undertaken throughout one’s life span and should cover all areas of life. Hence, African Higher Education Institutions [HEIs] should always include general [education] studies in their curricula to inculcate general basic knowledge on life-wide disciplines in their products. For a HE system to meet the need of our dynamic society, it must be always transformative. Consequently, HEIs must always be adaptive to technological changes that come from relevant research outcomes. The process of HE transformation can be succinctly seen in the figure 1 below:

![Figure 1. The HE transformation process](image)

The figure shows that HE transformation is the responsibility of everybody, because everyone is a beneficiary of quality development. African HEIs transformation has continued to evolve.

HE systems [consisting of Universities, Polytechnics, Colleges of Education, etc.,] in Africa came long after colonization of the continent. Initially, the provision of HE
for Africans was done on other continents. The increase in the population of Africans seeking acquisition of HE, led to HE being incrementally provided in Africa to meet African needs. With independence by African countries, the scope of the African HE curricula was increasingly expanded and improved to developmental needs of Africa. The evolution of the HE system has been gradual and HE transformation has been slowly incremental. Courses in many of African HE institutions have been evolutionary in terms of new curricula intent to continuously meet the ever-changing demands of globalization. For instance, in Nigeria, the HE system was begun in the 1940s with the Yaba Higher College, Lagos. In 1948, the University of Ibadan was established as a college of the University of London (the same time with the University of Ghana, Legon) and started with Faculties of Arts and Science, with that of Medicine following shortly afterwards (University of Ibadan Calendar, 1962). With evolutionary transformation of the Nigerian HE system, the country now has one hundred and thirty universities, tens of Polytechnics/Colleges of Technology, Colleges of Education, Monotechnics and several other types of HE institutions (JAMB Brochure, 2014). Transformation of our higher education systems has several dimensions, namely staffing which basically was foreign at the beginning, and was gradually transformed to now being almost hundred percent Nigerian academics, evolving from few courses at the beginning to current several courses with the objective of addressing the contemporary needs of African countries. There has also been transformation in the African Higher Education system in terms of application of modern technologies, internationalisation of programme contents and research, ownership: from government only to multiplicity of ownership- the various tiers of government, religious bodies and private individuals; funding pattern has also been transformed, from solely government funding to multiple sources of funding, etc. Some of the transformation process negate the ‘universalness’ of university system in that staff members are in most cases mainly from the same locality where the institution is located reducing the universality of our university system, particularly in Nigeria. Therefore, we can infer that some of the transformation processes need to be reviewed if quality HE provision was to be attained. The governance in many an African HEI has also metamorphosed over time, e.g. evolution from a situation whereby a principal was the head to that where only vice chancellor as head to a situation of having a vice chancellor with multiple deputy vice chancellorship, etc. at the head of the institutional governance.

*Foundational Issues-Nursery, Primary and Secondary Education Quality Must Be Improved*

Any improvement in HE system without commensurate improvement at the foundational education levels, which feeds humans into HEIs as intakes will not yield the expected result. Thus, any planned improvement the African HEIs must begin with deliberate policy and plans of improvement of the lower levels of education.
Education is a process not an event or activity; hence its quality improvement must be holistic and continuous covering all tiers of education. HE is essential for the production of professional and higher level specialist. However, these specializations are begun with the choice of subjects at the lower levels.

According to Obanya (2009), UNDP defined human development index as ‘a development paradigm that is about much more than the rise or fall of national incomes’ (p. 2). He further stated that ‘fundamental to enlarging these choices is building human capabilities’. Building human capabilities comes in one form of education or another. But only provision of relevant type of education at the lower ladders of education can enhance quality HEIs education provision. Therefore, transformation of HE must begin with sustainable transformation of these lower tiers. Those involved in provision of education at lowers levels must imbibe the spirit of researching and evaluation of the teaching and learning process for quality outcomes (Onuka, 2006a). Research does help the teachers to improve their teaching and teacher-student interaction acumen. Figure 2 shows a holistic mechanism for sustainably transforming the education industry for effectiveness and efficiency of HE provision in Africa.

**Stakeholders’ Participation, Social Orientation and Quality Improvement**

Participation in the provision of HE was hitherto was by government only. However, the window for participation in the provision of HE has been broadened to enable religious groups, corporate bodies, communities and individuals to be part of HE provision. In Nigeria and some African countries like Ghana, Kenya, Uganda, etc., all the aforementioned groups are now engaged in providing HE. The explosion in the population of HEIs has changed the scope of ownership and participation, as well as its governance. Participation in HE provision is now democratized and thus participatory making HE provision competitiveness. It is, however, necessary to evolve holistic mechanism that includes character moulding, funding, effective management, research, monitoring and evaluation for quality assurance, lecturer professional-development, exchange programme among African HEIs, collaboration between HEIs and industries among things to effectively transform African HEIs.

Holistic education provision mechanism envisages that education starts from the home. Thus, when the home provides quality foundation for education it engenders quality education that will be subsequently sustained. The Bible enjoins the home to educate a child in the right way to keep it on track throughout their lifetime (Proverbs 22:6). A holistic education provision should involve various stakeholders in the society who should contribute to education curricula content development and concomitantly its implementation. In other words, quality of national or regional/continental HE system(s) should be determined by the people whose needs are to be met by HE provision. Thus, only Africa can engineer curricula that can adequately address the challenges facing her. African HE systems appear to have
hitherto concentrated more on inculcating cognitive learning at the expense of character moulding whereas they award degrees for learning and character. This anomaly needs to be addressed by African HEIs through evolution of holistic mechanism for HE provision for Africans. This will obviously call for proper funding.

FUNDING: A BASIS FOR IMPROVED HIGHER EDUCATION QUALITY

Funding of HEIs in Africa must be commensurate to the needs of the sector: mere increase in funding which does not result in increase in ‘per project funding’ will not bring about the desired quality. When fund is provided, there is need to ensure that it is properly utilized otherwise HEIs cannot be effectively for quality outcome. The imperative, therefore, is modelling a holistic mechanism for fund provision and utilisation in the African HE systems. African nations need to formulate funding policies for sourcing funds in Africa instead of depending on external sources. A formidable society-industry-inspired curriculum will require adequate funding, so does a multifaceted, inter-and multi-disciplinary HE research undertaking that will propel industrial revolution and assist the growth of twenty-first century knowledge-based African economies (Onuka, 2012 b & d). Figures 2 & 3 depict fund mobilization and utilization mechanisms.

Figure 2. Possible sources of funding of HE systems in Africa

Figure 2 shows possible sources of funding available to HE systems in Africa. Here, each stakeholder contributes meaningfully to funding HEIs. Funds available to HE Systems must be appropriately applied if African HE systems for improved educational outcomes. Thus, a mechanism has to be also put in place to ensure proper fund utilisation in our HEIs (Figure 3). This confirms the observations of Onuka (2011b) and (2014) that funding of Nigerian public universities must be an all-stakeholders’ business. The sourcing and utilisation of fund must be through all-stakeholders committees on budgeting, sourcing and utilizing funds. This will
ensure fiscal as well as system accountability. Olorunsola and Arogundade (2014) posited that adequate funding will enhance lecturer-development. It is only well-funded to HEIs would engender provision of highly developmental-oriented and industry-relevant quality HE outcome. Thus, African economic realities presupposes that a sustainable HE – Collaborative fund sourcing model and holistic mechanism for effective management of HE financing be evolved for quality HE output (Figure 4 below). It will remove limitation of access to HEIs, which Bamiro and Adedeji (2010) found to be alarming because the poor can only access Federal Universities in Nigeria. Kasozi (2009) made same suggestion in view of paucity of fund for HE in Uganda. Kasozi (2009) and Onuka (2011a) agreed that if the rich and corporate bodies change their mind-sets about funding HE adequately, the HE sector will be improved very meaningfully in producing quality HE outcomes. This suggestion is corroborated by Abiodun-Adegoke (2014) who submitted that poor funding and non-industry related curricula culminated in Nigerian University graduates’ employability and Daku (2014) who suggested that there should be a new approach to generating fund and its utilisation in HE financing. The imperative, therefore, is that industries and other corporate bodies must commit appreciable amount of fund to HE provision with a monitoring mechanism in place. Figure 3 illustrates how fund could judiciously utilized to promote quality educational output.

Figure 3. Proposed broad fund application model in HE systems in Africa

There can only be true transformation of HEIs, if the systems are properly funded. Thus, HE transformation is a function of fund provision and utilisation + process that lead to quality outcome. Fund not utilized properly cannot be efficient, and one way of ensuring of efficiency is investing substantially in research in HEIs.
AFRICAN HIGHER EDUCATION TRANSFORMATION FOR QUALITY OUTCOME

RESEARCH: MECHANISM FOR THE QUALITY ASSURANCE

Research is the basis for developing quality education methodology. Development is always a result of a research undertaking. Obanya and Hountondji (2005) submitted that formative research can take place before the commencement of a programme or during programme implementation. Obanya (2005) also observed that formative research plays positive role in education policy development. Obanya and Hountondji see formative research vis-à-vis education policy as follows: ‘Formative research is an attempt to use research to improve the quality of choices to be made in policy development, both upstream (elaboration) and downstream (implementation)’ (p. 8). Research is a process of discovery, rediscovery or replication for confirmatory purpose so that any educational policy evolving therefrom facilitates educational development and quality improvement. HE institutions have the mandate to do research for educational and other forms of national developments (Onuka, 2012c). Yet only stakeholders’ participatory educational research can bring about quality growth and development in all tiers of the education sector. Such must involve those involve in the industry about whom the research is undertaking for easy implementation of its outcome. This is because their involvement in the research process makes the implementation of its outcome[s] imperative. African HE systems will experience real transformation if it would refocus its education on African contextualized sustainable development deriving from African inspired, designed and executed research. Africans should also fund these researches for a meaningful paradigm – transformation. The concomitant effect of this is improved HE provision to address African needs.

EVALUATION AS A TOOL FOR QUALITY IMPROVEMENT

Quality assurance in HE sub-sector can only be enhanced and sustained through holistic monitoring and evaluation (M & E) mechanism. Every stage of a process needs M & E to engender its accountability and improvement. Only overtly accountable system can improve programme to the satisfaction of its beneficiaries. In HE, accountability manifests, when its curriculum is driven by societal need and its implementation conforms to the intended outcome. Evaluation ensures that hands are appropriately on deck to minimize all wastages. Accountability would be seen if the proprietors of HEIs fund, monitor and evaluate the goings on in the sub-sector, supervise and discipline erring students and staff to ensure sanity in HE provision; while students study and denounce anti-social vices that disrupt the realization of the objectives of HE.

Obanya and Hountondji (2005) averred that formative evaluation contributes immensely to educational outcome improvement. Akyeampong (2011) agreed that assessment built into the learning system improves learning achievement. Improvement takes place when a positive change occurs. Such change/improvement is termed transformation. Improved quality HE system results from transformation.
process. They also agreed that in practice, ‘evaluation in the course of developing a programme would tend to rely heavily on rapid assessment procedures’ (p. 4).

Evaluation/assessment in the HE process must involve assessing competencies that should normally accompany the content of the various curricula. In fact, those seemingly latent skills which have to be rather stimulated in the human (soft or emotional intelligence skills) must be incorporated into the curricula, taught and assess as part of the transformation process of the African HEIs for improved quality HE provision to the demand of the world of work. In fact, various forms of assessment should be evolved for the purpose of evaluating the various types of knowledge, soft and hard skills that are required to fit someone in each type of the world of work in the current knowledge economy and digital-based development (Ghartey, 2015). Association for Educational Assessment in Africa (AEAA) (2015) equally expresses the need for the African education system to employ ingredients of quality assessment which include fairness, ethical considerations, integrity, inclusiveness, comprehensiveness and innovativeness while assessing the education system and its outcomes. Assessment could be for development/improvement of system, process or learning or for determination of an outcome and its quality. Assessment of outcome whether of an on-going process or of an outcome provides feedback to the system or process for remediation that engenders improvement and accountability of the process/system. Evaluation tells who was responsible for what and what can be done to improve the process/system. Therefore, the dynamics of our digital-world dictates that evaluation of a system or process
should always be on-going and its outcome is constantly fed back into the system for necessary remediation. Onuka and Durowoju (2011) and Durowoju and Onuka (2015) confirmed that continuous assessment which is a form of assessment for learning does engender improved learning as well as improvement of education provision.

Eguridu (2015), the Head of Nigerian National Office of the West African Examinations Council on NTA news on 15 August, 2015 suggested a uniformed assessment and certifications system of students at the junior secondary school must be designed by stakeholders to engender quality assurance. Such step will help to curb aiding and abetting examination malpractice in Nigeria. Junaid (2010) reported that various countries have regulatory agencies for quality assurance in HE (National commission on HE in Uganda (established in 1996) and HE quality committee in 1997, the South African qualification Authority which plays a role on HE quality assurance. Thailand, Philippines, the UK, Netherlands, USA, etc. are among others have regulatory and quality assurance agencies for continuous improvement in HE provision. Durowoju (2014) submitted that continues assessment does improve quality teaching and learning and thus, the educational system. Onuka and Durowoju (2012) found that administration of CA improves management courses at the HE levels in Nigeria.

Synergistic Monitoring learning Outcomes in African HE and comprehensive shared evaluation of HE for quality assurance in African HE system need to be evolved by the African HE systems for effective and qualitative HE provision. When we share one another’s experience and borrow from such experiences for use in one’s national HE subsector, improvement surely will occur and African HE will be the better for it. African HEIs should devise evaluation mechanism that is all-encompassing (including both formative/developmental and summative variants). This model should also make provision for management evaluation- process/service management, time accountability in all these respects.

**LECTURER DEVELOPMENT EFFECTIVE TEACHING & LEARNING PROCESS**

The provision of fund will enable HEIs recruit, equip and retain the right caliber of faculty who must on regular basis be exposed to further development. The figure below illustrates a form the lecturer continuous professional development could take, so that the lecturer will continuously update his/her knowledge, soft and hard skills as well as his/her attitude to promote positive change in African HEIs for the benefit of all stakeholders. Industrial leave should be granted to lecturers once a while to help them get acclimatised to changes in the industry for onward transmission to their students. The trend will assist HEIs to prepare the students for the world of work.

The pivot of higher educational development is the academic staff. Thus, since the transformation of the higher education institutions is a function of transformed academia, the lecturer needs to be continuously developed in this digital age where
rapid development takes place per second per second. The lecturer get developed through self-efforts, constant researching, team-working, networking, membership of committees, mentorship, training/conference attendance and workshop participation, amongst others.

Supporting the idea of continuous lecturer development, Babalola (2014) suggested reinvigorating of monitoring learning outcomes (achievement) and the reinforcement of accountability in the education system. These programmes must also be extended to the HE system. When the lecturer is well-equipped, he becomes much self-confident and becomes more committed. Greater level of job-commitment of the worker, according to Oredein (2014), increases his/her ability to perform their job with zeal. Hence, lecturer-development must be accorded priority to enhance the process of HE transformation for quality educational outcomes. Furthermore, provision of quality teacher education for those who teach at all levels of education is essential to improving the quality of education provision. Every lecturer should be given some teacher education for enhanced quality tertiary education.

The table shows machinery that can be adopted for effective mentoring of the lecturer and the student who is also prospective lecturer for continuously improvement of the quality of HE. Professional development can be better enhanced through partnership and collaboration among African HEIs.

A well-equipped faculty enhances the quality of teaching and learning in HEIs. An effective HE teaching and learning process will be the one which recruits qualified faculty and the requisite support staff, recruits the right calibre of students. Stakeholders should equally provide appropriate learning environment at all
tiers of education since the lower levels are building blocks and the foundation on which HE is built. In this era of digital applications to all spheres of living, the provision and utilisation of virtual teaching and learning facilities become imperative for improved provision of HE. There must also be appropriate levels of lecturer-learner interaction to engender effective learning (Onuka & Durowoju, 2011). Thus, there must be adequate provision of learning facilities in African HEIs while facility-learner interaction is sustainably encouraged. There should be student exchange among African HEIs also. This is more succinctly explained by the following figure. The process calls for trans-border partnership among African HEIs.

![Figure 6. Model for effective HE teaching and learning](image)

Table 1. Framework for University mentorship at University levels

<table>
<thead>
<tr>
<th>Context</th>
<th>Matching</th>
<th>Relationships</th>
<th>Roles</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFORMAL</td>
<td>Voluntary</td>
<td>Head /paternal</td>
<td>Parent</td>
<td>Imparting</td>
</tr>
<tr>
<td>Community</td>
<td>One-on-one</td>
<td></td>
<td></td>
<td>Communicating</td>
</tr>
<tr>
<td>Home</td>
<td>Group</td>
<td></td>
<td></td>
<td>Informing</td>
</tr>
<tr>
<td>Faith based</td>
<td>Electronics</td>
<td></td>
<td></td>
<td>Telling others</td>
</tr>
<tr>
<td>FORMAL</td>
<td>MANDATORY</td>
<td>Heart/</td>
<td>Peer/</td>
<td>Influencing</td>
</tr>
<tr>
<td>School</td>
<td>One-on-one</td>
<td>partnership</td>
<td>friend</td>
<td>Persuading others</td>
</tr>
<tr>
<td>College</td>
<td>Group</td>
<td></td>
<td></td>
<td>using power and/</td>
</tr>
<tr>
<td>University</td>
<td>Electronics</td>
<td></td>
<td></td>
<td>or authorities</td>
</tr>
<tr>
<td>REFERRALS</td>
<td>Combined</td>
<td>Hand/</td>
<td>Master</td>
<td>Empowering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>professional</td>
<td></td>
<td>Giving power to others</td>
</tr>
</tbody>
</table>

PRACTICUM One-on-one
SOCIAL WORKERS Group/Electronic

Source: Babalola (2014:513)
NEED FOR PARTNERSHIP AMONG AFRICAN HIGHER EDUCATION SYSTEMS

One of the ways African HEIs can be transformed for effectiveness, efficiency and the concomitant quality of HE provision is that they evolve joint programmes to promote quality HE provision. They should promote exchange of academic staff in order to tap from one another’s experiences and competencies. Through exchange programmes synergy can develop to promote quality higher education. African HEIs should leverage on their comparative advantages for both staff and students’ exchange in order to learn from one another. There should be regularly organized fora for gaining ideas, innovations, inventions, creative systems of imparting knowledge and sharing discoveries from one another for improved HE provision. To further enhance partnership among African HEIs, bilingualism should be introduced for instruction and interaction in African HEIs. This is because African HEIs need to evolve peculiar African HE systems to be based on African concept of development needs. If all HE quality regulatory agencies such as Nigeria’s National Universities Commission, National Board for Technical Education & National Commission for Colleges of Education in Nigeria; Ghana Higher Education Accreditation Board; Uganda’s National Council for Higher Education amongst others will come together and exchange views, learn from one another and set minimum standards for quality HE, our HE systems will be transformed. Transformation may also imply reviewing curricula together, and also adding dropping courses.

HEIS-INDUSTRY PARTNERSHIP FOR CURRICULUM DEVELOPMENT AND IMPLEMENTATION

Partnership among African HEIs and industry is imperative for the transformation of African HEIs to meet the need of industry so that African graduates can be easily employed by the industries. This is because the industries and HEIs complement each other in promoting growth and development in their economies. Partnership in this context should include jointly designing and implementing the African HE curricula. They should collaboratively source funds and share facilities to engender effective learning. The products of HEIs are expected to work in the industries and other sectors so as to facilitate the development of their nations. Abari, Oyetola and Okunuga (2014) in their work on leadership and HE for innovation and development believe that there is correlation between institutional leadership effectiveness and innovation in development. The management team in any institution provides the leadership. Thus, only effective management team can give effective leadership which can subsequently result in innovation that promotes quality HE outcomes. There should be constant interaction at workshops and conferences by HEIs and industries to fashion out curricula improvement [both in terms of design and implementation]. In fact, there should be joint panels on curricula design and implementation [discipline by discipline], consisting of persons from both the industry and academia. Exchange of personnel should be evolved between the industry and academia to ensure they learn
from each other and also understand the need of each other while equally assisting each other to overcome their deficiencies in quality output from HEIs into the industry. This partnership can be facilitated by modern digital technologies at minimal costs.

THE USE OF DIGITAL TECHNOLOGIES

The transformation of African HE will be incomplete if the use of ICTs is not embraced. Onuka (2015) revealed that the provision of teacher education at the tertiary education will not be effective if the beneficiaries are averse to the use of ICTs/digital technologies. It is important also to employ the use of digital technologies for teaching and learning to transform African HEIs and assure quality HE delivery. Africa cannot catch up with the so-called advanced countries, if we neglect the use of ICTs. In the management of HE, it is an essential tool and a must use gadget for effective communication which is a principal tool of management. Management cannot be relegated to the background in HEI. In fact, in an era when the fight against corruption is everybody’s desire, ICTs are management tools for achieving such a noble objective. In addition, the HE accounting system cannot be left to manual manipulation. The accounting systems must be automated to enable stakeholders be part of both sourcing and utilizing funds HEIs. ICTs facilitate both teaching and learning and has also become a useful examining tool. Thus, it is imperative that stakeholders in HE provision should embrace the use of digital technologies for effective and HE continuous transformation for sustainable development of Africa. The reason we have to embrace the use of digital technologies is that it is the only way we can be part of the modern world’s development. Bakkaulindi (2014) and Oluleye, Aremu, Adewale, Onuka, Odinko and Ayeni (2012) respectively found that Uganda’s and Nigeria’s foremost universities still have to invest much in the use of ICTs in order to catch up with the rest of the world. It is obvious that the use of digital technologies in teaching, learning and examining enhances quality of higher education (Kah, 2013), thus the imperativeness to embrace digital technologies

AFRICAN COLLABORATIVE APPROACH

It is essential that for quality transformation of African HEIs to be realized, they must collaborate with one another in several areas and such areas are highlighted below:

Regulation

With the astronomical growth in the number of HEIs in Africa, the need to ensure standards arose and hence, the need for regulation and/or accreditation of institutional activities and programmes. This is to set minimum standards for their programmes so that their products are comparable to those on other continents. In Nigeria, for instance, there are three regulatory bodies in its HE system – the National Universities
Commission, National Board for Technical Education and National Commission for Colleges of Education, while we have the Accreditation body in Ghana, HE Regulatory Bodies in Uganda, Kenya and Tanzania and so on. The system need to be regulated for quality HE provision assurance and for competitiveness. Such development makes graduates of HEIs employable.

Globalization and Transformation of Africa

The discovery that no country or continent can be on its own without interacting with others, has brought about the quest to internationalize the higher education systems in Africa. Thus, this has brought with it some form of neo-colonialism being freely imbibed by African HE systems because the terms for regulating it’s HE system are inadvertently determined by other continents. However, standards mutually determined by African HE systems among themselves because they are more advantaged to determine what is best for Africa. The development will minimize African HEIs’ dependence on other continents and concomitantly, promote more ‘local content’ rather consider foreign inspired HE systems better than ours. Once we transform African HEIs from African perspectives Africa will save a lot of capital flight and the depletion in the value of African products and services as well as the devaluation of the African currencies.

Transformation in HEIs’ Research, Teaching, Community Service and Governance

A noticeable transformation has taken place in research process in terms of quantum, partnership, emphasis on ethics in research and evolution of research policy to guide research undertakings by African academics; the teaching in African HE systems is being transformed in terms of paradigm shift from teacher-centredness to co-teaching/student-centredness, adaptation of eclectic methodologies and modern technologies, etc., as well as being more learner-centred in our contemporary world. There has been some sort of transformation in composition and sophistications of membership of HEI communities compared to what obtained in the past. The governance in these institutions has also metamorphosed from a simple structured organogram to a more complicated structure due to increase in the various universes that constitute their human capital and studentship. African HEIs, therefore, should partner in running joint programmes apply the law of comparative advantage in which the course elements that are better handled by one institution are domiciled in therein and vice visa so that students run part of their programme in one country and the other elements in the other, with the students moving en mass from one campus to next (an advantage of synergistic cooperation). Recently, the Nigerian National Universities Commission hosted all stakeholders in HE conference and workshops on strengthening quality in Africa under initiative of Global University Network for Innovation-Africa in partnership with African Quality Assurance
AFRICAN HIGHER EDUCATION TRANSFORMATION FOR QUALITY OUTCOME

Network (AfriQAN) and the Association of African Universities (The Guardian Newspaper of Nigeria—an advertorial at p. 50 of Friday, 18 September, 2015). The partnership, being envisaged goes beyond conferences and workshops dovetailing to joint research, teaching and learning endeavours involving principal actors in HE system—students, researchers/lecturers, administrators and the industries with regard to curriculum development and implementation.

Staffing: Teaching and Non-Teaching and Communication System

Transformation in the calibre of teaching and the non-teaching staff in terms of qualifications, compliance with the use of ICTs, expertise in research, coping/soft skills, participation in institutional governance has also been dynamic. Previously, the communication system was paper-based, but has transformed to dual system of paper and e-process.

Transformation of Examining System

The examining system in higher education institutions has also taken a new form as it is now a process rather than an event. Its grading system has metamorphosed from grade point average to cumulative grade point average, there is no more reseat but a carry-over of deficit. Most African HE systems have become more patterned after the American system as opposed to the British type of education system they were bequeathed with.

EFFECTIVE HIGHER EDUCATION SYSTEMS MANAGEMENT

HEIs’ admission planning and processing, teaching and learning process, evaluation (assessment) process, discipline process, policy formulation process, recruitment process, capacity building process, communication process, etc. must be transformatively administered to benefit all its stakeholders.

Management is the process of forecasting/prediction, planning, budgeting, organisation, implementation, monitoring and evaluation, feedback and revision for improvement (Onuka, 2006a). The process involves a holistic approach to evolving sustainable programme improvement. Onuka (2011) posited that God exemplified this in creation as every person of the Godhead was involved in it, embedding management and evaluation the twin requirements for transformative and sustainable development (Genesis 1). God demonstrate that formative and summative evaluation constitute effective tool of management. This is why there was an ever-increasing improvement in creation (Genesis 3: 15; John 3: 16–18). Thus, HEIs’ management must take a cue from God’s management style: holistic, evaluative and communicative. Therefore, the HEI manager must be ICT compliant. HEI management must be systematic and strategic so that every activity is strategically forecasted and relevant policy carefully formulated. One
can then use the elements of the forecast to plan the activities of the programme/plan, then budget for the activities with outlined elements in the plan. Move on to organize the elements of the budget in preparation for execution of the programme, implement the programme, monitor the execution and evaluate the process, use evaluation result to determine programme accountability and feedback. Furthermore, utilize the feedback to revise the programme for improved input, process and output quality. This can be applied to a course, programme, or the entire institution. When the process is positively changed, transformation has been undertaken and consequently, improvement too takes place. Onen (2014) stressed the essence of ICT in managing HEIs. Management can only succeed if it makes use of communication, as it is essentially a communicative profession (Onuka, 2006b). This is because management involves the use of humans to achieve set goals/objectives. Therefore, the utilisation of ICTs to achieve the objective of sustainably transforming our HE systems for rapid development of Africa is imperative.

TECHNICAL SUPPORT

A good HE system must be well-equipped with relevant 21st century ICTs, laboratory equipment and technologies. Therefore, the need for recruitment and development of the right calibre of technicians to operate and maintain this equipment for continuous utilization arises. The provision of technology for continuous power supply to enable the HEIs to prosecute their tripartite mandate of teaching-learning, research and community service is also imperative. The provision and use of new technologies will improve the quality of African HE. This also requires the appropriate technical human capital. This trend ensures that the required technical support for effective HE provision is available and put to appropriate use. The process of achieving this is illustrated in the figure below:
AFRICAN HIGHER EDUCATION TRANSFORMATION FOR QUALITY OUTCOME

Figure 8. Provision and use of ICTs for effective transformation of HE for African sustainable development.

SUGGESTED HOLISTIC MODELS FOR IMPROVING QUALITY OF HIGHER EDUCATION

Figure 9. A possible model for holistic approach to transforming African HE system

Funding

Mobilization and utilisation is compulsory in total transformation of our HE. This needs a formidably sustainable mechanism, research and evaluation must be
constantly undertaken for continuous policy, plans and programme improvement at both unit and institutional levels. The system must also undertake continuous lecturer-development while the lecturers themselves must be encouraged to embark on constant self-development. Only quality students should be admitted—portending that the lower levels of education must equally be transformed. Synergy among African HEIs for transformation for quality outcome implies working together for better outcome. A synergy (symbiotic) relationship among African HEIs culminates in \(2 + 2 = 5\) instead of \(2 + 2 = 4\). African HEIs need to overtly collaborate with one another and also with the industry for their effective transformation for quality outcome. The model below shows a comprehensive mechanism for transformation of African HEIs.

![Figure 10. Holistic transformative mechanism for improving higher education provision](image)

This model shows the process of holistically transform HE systems through proper funding and prudent utilisation to transform HE for quality educational input, process
AFRICAN HIGHER EDUCATION TRANSFORMATION FOR QUALITY OUTCOME

and output. Both fund provision and utilisation should involve all stakeholders in budgeting, budget implementation organising, monitoring, recruiting the right calibre of personnel, policy and programme, and designing effective management system, updating and enabling the academics to effectively facilitate learning, conduct relevant research and provide useful community service. HEIs must relate with society and industry in evolving and implementing society/industry-inspired curricula. All stakeholders: parents, students, community, industry, academics, administrators, etc. should be involved in institutional governance to transform HEIs for improved quality education output. It also entails making learning environment conducive and attractive. The model assumes that every citizen is a committed stakeholder and is thus interested in the goings on in the sector, monitoring them, evaluating them and offering suggestions for improvement and also contributing to system’s upliftment.

According to a report by the Nation newspaper of Nigeria on Thursday, 17 September, 2015, a group of six African Universities namely: Cape Peninsula University of Technology, Republic of South Africa; Jaramogi Oginga Odinga University in Kenya; Kwara State University in Nigeria, University of the Gambia and University of Ilorin, Nigeria are already collaborating in many aspects of university operations. This collaborative partnership initiative should be emulated by other African universities and indeed be expanded to become a continental forum.

SUGGESTIONS

The following suggestions are hereby offered for transforming African HEIs for quality HE provision and sustainable development of Africa.

• The African HE system should form professional associations for its staff to facilitate interaction and sharing to learn from one another, and transfer knowledge and skills to one another. Such fora will foster networking and collaborative relationship among African HEIs. Furthermore, Association of African Universities should be strengthened for this role.

• Trans-border collaborative multi- or inter-disciplinary research which can lead to the evolution of innovative and creative pedagogy for instructional delivery and learning should be started by African HEIs to engender African-inspired sustainable development.

• There should be collaboratively designed and funded research in HEIs to engineer the needed developmental strides in Africa.

• The African HEIs Regulatory bodies should form a forum through which they can share knowledge and strategies for formulating regulatory policies and programmes.

• Collaboration should be evolved among African HEIs to take comparative advantage in the programmes where they have greater for quality HE output optimization.
Deliberate efforts should be made to foster an all-encompassing relationship between industries/town and gown to design and implement as well as fund discipline-based HE curricula.

A comprehensive model for quality transformation of HE should be cooperatively evolved as depicted in figure 10 above while HE provision should be seen as an all-stakeholders’ responsibility.

Quality teachers should be trained for all levels of education. Lecturers in tertiary institutions should be given teacher education for enhanced quality productivity.

CONCLUSION

The need for continuous transformation of the African HE systems is imperative taking cognisance of the fact that the world in which we live is dynamic. Thus, Africa cannot afford to be left behind other continents. She must not only catch up with the rest of the world, must remain at par with them, or even overtake them. However, no African nation can do it alone, it thus becomes necessary for African HE systems to collaborate with one another in the areas of research undertakings, teaching, curricula development, student and staff exchanges, conferences and other essential functions of the HE system. Even, the HE regulatory bodies should synergise and partner to harmonise standards for the African HE sectors in such a manner that credits obtained in one country can be transferred to another. Such collaboration in regulatory issues will culminate in confidence building among African HEIs. Such partnership among Africans will help improve the system and meet African industrial/labour sectors’ needs. In conclusion, the African HE systems must carry out researches that will inform policies for improving primary and secondary sectors of the African education systems, so that African HEIs can have solid base for recruiting inputs [students].

REFERENCES


AFRICAN HIGHER EDUCATION TRANSFORMATION FOR QUALITY OUTCOME


The Holy Bible KJV.