Makerere Journal of Higher Education

Aims and Scope

Description: Biannually, the East African School of Higher Education Studies and Development, Makerere University College of Education, produces *Makerere Journal of Higher Education* (MAJOHE) (ISSN: 1816-6822). The goal of the Journal is to provide a visible outlet for definitive articles that discuss the theory, practice and policies relating to the role, development, management and improvement of higher education from an international viewpoint. Therefore, the editor invites contributions that link relevant theory and research evidence to the policy and practice of higher education. Though a highly diverse range of contributions will be considered, the Journal gives special preference to conceptual and empirical writing that is relevant to the understanding, promotion and constructive criticism of the reform agenda in African higher education institutions and national systems and integrates pertinent international developments, debates and challenges. This is because the Journal's management board acknowledges that the questions, issues, theories and policies pertaining to the development of contemporary higher education institutions and systems require in-depth study and comparison at an international level. Preference is also given to contributions that discuss new initiatives at regional and continental levels (including the work of national and multilateral higher education organisations and associations). The Journal's editorial policy prefers submissions that synthesise the significance of different higher education policy alternatives and geographical experiences in explaining the phenomenon at hand. On top of rigorous examination of the 'local dimension' of the issues that they expound, therefore, contributions mirror conversance with relevant international perspectives and experiences, thereby situating the debate in a broad discourse that facilitates holistic understanding of the issues at hand. Edited from Makerere University, Uganda, the Journal draws on the expertise of a diverse editorial board, as well as a wide range of reviewers in and beyond Africa. The Journal is committed to the publication of both experienced and early career researchers so its editorial policy puts overriding attention on helping contributors to reach the level of quality that is deemed fit for publication through ensuring relevant, fair and penetrating reviews as well as timely relay of feedback to contributors.

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Editorial

This issue of MAJOHE presents ten papers contributed by 17 authors based at 13 universities in Australia, Kenya, Nigeria, Tanzania and Uganda. Interestingly, the papers address common thematic areas, so I am optimistic that readers will appreciate the developments that the authors discuss from an internationally comparative perspective.

In the first paper, Sanga discusses the neoliberal reforms adopted at the University of Dar es Salaam, Makerere University and University of Nairobi over the last three decades. The paper contributes to a much subscribed area of higher education. However, it does not only describe the reforms. It examines them from the point of view of globalisation, highlighting the opportunities and dilemmas that they have presented to the universities. It is interesting to note the lines of similarity in the universities' experiences with the reforms from the article. Moreover, the discussion developed integrates student and [academic] staff mobility within the region as well as the implications of the mobility for the institutions and quality assurance in general. Sanga ends with a striking conclusion: as the universities adopt reforms towards a more globalised outlook, they shouldn't forget their *local* mandate!

Ouma et al report the findings of a study that investigated the things that attract foreign students to Uganda and the challenges these students face in the course of their study in the country. Their paper extends the aspect of student mobility that Sanga's paper touches on. It reports five attractions: the quality with which Ugandan higher education is associated in the East African region, security situation of the country, diversity of study programs, country's student immigration policies and affordability of study programs. Conversely, rising costs of living, language barriers and differences in pre-university academic achievement grading systems between Uganda and some foreign student sending countries were identified as the main problems affecting the international students.

Oguntimehin and Adeyemi discuss the quality of higher education in Nigeria. Triggered by concerns for the quality of higher education in the country, their paper develops and uses a tripartite model for analysing quality in education to discuss gaps in quality assurance in Nigerian higher education. Still in Nigeria, Bello and Johnson assess the role of ICT in the management of higher education for sustainable development. They report that ICTs could contribute to efforts to improve the effectiveness and quality of higher

education in the country. However, access to ICTs is still low and academic staffs scarcely use the technologies despite the fact that they have a positive attitude towards them. Grounded on discussion of their findings, the authors make recommendations for improvement.

Bagaya and Sekabembe report the findings of a study that investigated the relationship between students' involvement in sports activities and their involvement in academic activities. Conducted at Ndejje, a university with notable prominence in sports activities in the East African region, their study found that there is no significant relationship between involvement in outdoor sports activities and involvement in academic activities. However, they found a negative relationship between involvement in indoor sports and involvement in academic activities. The role and management of sports activities in higher education in Sub-Saharan Africa are underrepresented in the literature. Apparently, this is because, in majority of instances, pursuit of academic activities pushes sports activities to the periphery—due to an implicit, albeit untested, assumption that the relationship between involvement in sports and academic activities is inverse. However, as HEIs increasingly acknowledge the potential of sports activities to improve their visibility and funding situation, Bagaya and Sekabembe's paper provides needed guidance.

Taking the case of University of Lagos, Madumere investigated the impact of innovation on the management of HEIs. Specifically, this study examined whether organisational change, including restructuring of top leadership, is related to the effectiveness of organisational management. The findings were that organisational changes could occur without affecting organisational effectiveness. As HEIs on the continent undergo phenomenal transformation, sceptics have called for restraint. Amid this scepticism, Madumere makes a case for change and gives the University of Lagos, which was found to be dynamic despite identified constraints, as a case in point. Hopefully, readers will use the university as a point of reference in examining other HEIs' experience with transformation.

Using UNESCO's input-process-output framework for assessing quality in education, Uche and Olele discuss the *accountability* of ten HEIs to their host communities. Conceived from the theoretical point of view of systems theory, the paper looks at quality as input, as process and as output. The institutions' accountability is examined from the point of view of both the institutions and the communities. The paper reports inadequacies in the institutions' accountability. Nevertheless, it associates some of these inadequacies with constraints on the part of the communities, including shortfalls in political willingness to develop higher education, students' learning readiness and utilisation of research findings. Thus, the study affirms the applicability of systems theory to the understanding of the accountability of HEIs to their

communities. It demonstrates a basic point: the accountability of HEIs to their communities requires synergies between the institutions and the communities.

Kisalama and Kafyulilo report on the integration of ICTs in pre-service teacher training in the School of Education at Makerere University and Dar es salaam University College of Education. Like Bello and Johnson, these authors report a positive disposition towards ICTs albeit affected by bottlenecks in access to the technologies. These authors indicate that there is still plenty of work to do with regard to the acquisition and deployment of ICT facilities. Drawing from a discussion of their findings, Kisalama and Kafyulilo recommend the Technological Pedagogical Content Knowledge (TPACK) model for approaching this work.

Adaeze reports the findings of a study that investigated the attitudes students and student-teachers in Minna hold towards the teaching profession. The study found both positive and negative attitudes. These were linked to the self-presentation of practitioners in the field of education so the study underlines need for integration of role-modelling in teacher training.

In the last contribution, Ofoha discusses the merit of open and distance learning (ODL) programmes in human capacity development. Taking cognisance of the contribution and criticism against the programmes, Ofoha's study investigated the significance of the difference between the competence of leavers of ODL and conventional programmes, taking the case of the BA in Primary Education programme of the National Open University of Nigeria. The findings were that there is no significant difference between the two groups. Therefore, the study concludes, the public should have confidence in ODL programmes.

Editor

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Challenges of Institutional Reform in African Higher Education: the Case of Three Public Universities in East Africa

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Abstract. While globalisation has traditionally been associated with networks of commercial and political interests, today it is a challenge with which all sectors of society, including higher education, must contend. In higher education, one of its manifestations is the rapid development of borderless higher education markets. In East Africa, this has seen universities in more developed countries strategically promote their services in the region through, inter alia, for profit universities, corporate universities and distance education programmes. A direct consequence of this has been the creation of 'global students', who are not bound by the dictates of the countries in which they reside. This accelerated mobility of knowledge and skills is the impetus for the migration of skilled workers hence brain waste and brain gain. In order to examine this phenomenon more closely, three purposely-selected East African public universities perceived as more suitable examples for internationalisation and institutional reform activities were studied. These are the University of Dar es Salaam in Tanzania, Makerere University in Uganda and University of Nairobi in Kenya. The study concluded that, despite the myriad of challenges that the universities face, they have numerous opportunities. If efficiently utilised, these opportunities can help the universities to overcome their challenges. The study argues that efforts to adopt an international outlook should not derail the universities from their mandate to serve their countries.

Keywords: Institutional reform; Internationalisation; East Africa

1 Introduction

Globalisation has affected many aspects of our life, one of those being education. Kinyanjui (2007) and Aarts & Greijn (2010) note that globalisation is changing the ways through which knowledge and skills are produced, disseminated and utilised. It has always been puzzling to find any agreement on what the term globalisation actually refers to or when in fact the world entered

a global age (Morrow & Torres in Collins & Rhoads, 2008). Moreover, knowledge is more and more often becoming a commodity that moves between countries. The rapidly increasing demand for higher education, in turn, surpasses the capacity of many countries to provide it locally. Likewise, universities in East Africa have been directly influenced by the irresistible wave of globalisation. Since the last decade, we have witnessed transformations taking place in curriculum and general ways of doing things in many universities for the sake of improving their outlook.

Although internationalisation (for instance, see figures 1 and 2) and institutional reforms are taking place at a remarkable magnitude in Africa, little has been published on the extent to which African universities are globally competitive. Teferra and Greijn (2010) argue that, although the systems of higher education in Africa are the most marginalised in the world, there is ample evidence that they may be among the most internationalised in terms of form, dimension, and scope. The situation is partly attributed to historical, socio-political, economic, and paradigmatic factors. Most of the initiatives and reforms being made by institutions of higher education in Africa apply the DNA theory of fostering local knowledge. Cheng (2003:12) explains that this theory underlines the need to identify and transplant "the better key elements from the global knowledge to replace the existing weaker local components in the local developments." It means that fostering local knowledge is mainly a process to replace the invalid local knowledge with the relevant global knowledge through globalised education.

This idea seems to concur with Nyerere (1970)'s ideas:

> . . . it is necessary that we should be clear in our own mind about the function of university in the modern world….Only when we have done this can we avoid the twin dangers, on the one hand, of considering our university in the light of some mythical 'international standards', or, on the other hand of forcing our university to look inwards and isolate itself from the world in which we live.

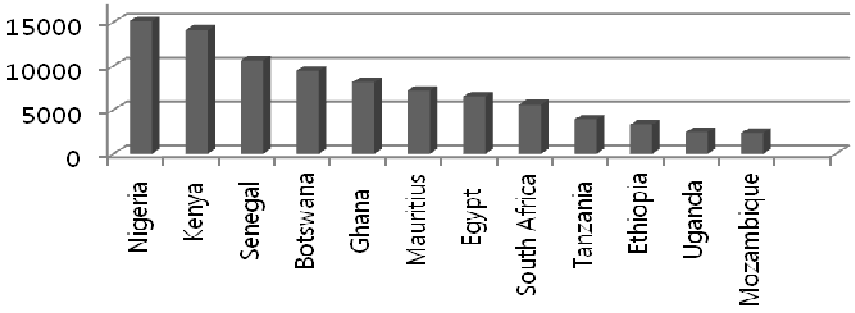

Figure 1: African University Students Studying Abroad
Source: Kishun (2006)

Figure 1 indicates that Tanzania, Uganda and Kenya are among the top twelve African countries sending students abroad for university education.

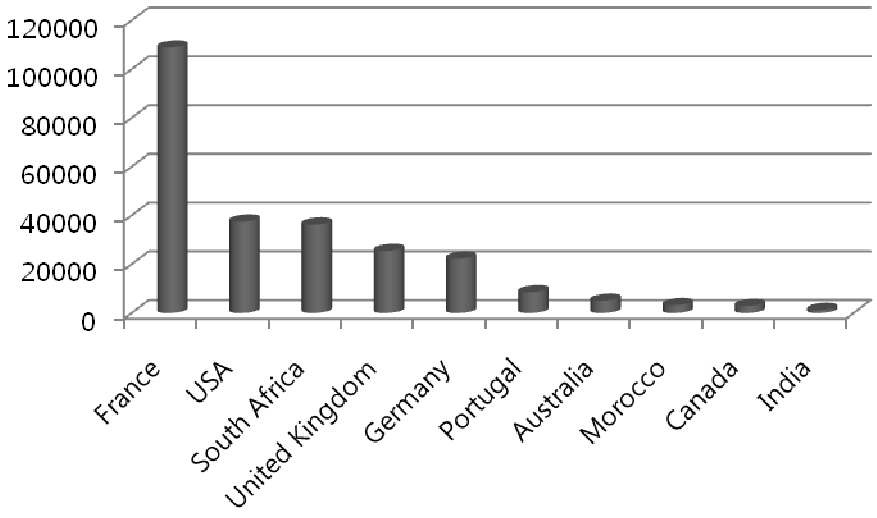

Figure 2: Top Recipients of African University Students
Source: Kishun (2006)

Figure 2 shows the top ten countries where African students go for university studies abroad. Interestingly, South Africa, an African country, is third on the list, suggesting the idea that even African universities can be a top choice for Africans' university education.

Universities are transforming and consolidating aspects like teaching, research and innovation, information and communication technology application, funding, and scholarship to ensure that they produce graduates who are well equipped to tap global knowledge resources and apply their education to support local and regional development (Teferra & Greijn, 2010; Nyaigotti-Chacha, 2004; Sørensen,2009).

1.1 Purpose

The purpose of this study was to trace the background of higher education institutional reforms in East Africa and point out the challenges they face in the era of globalisation. Towards this end, the specific objectives were to:

- Trace the setting of East African public universities reforms,
- Display the priority activities undertaken for internationalisation, and
- Outline the challenges that these universities face in this era.

1.2 Role of Higher Education in Africa

Despite the fact that higher education may be defined differently in other studies, this paper consistently refers to it as post-high school education obtained from institutions of higher learning, especially universities. In order to connect to the "global knowledge backbone" (Bon, 2010, p. 63), any university ought to fully discharge the conventional tripartite functions expected of them: teaching, research, and consultancy. Higher education contributes to socio-economic development through, *inter alia*, production of a highly skilled workforce, increasing labour mobility, facilitating the labour force's capacity to absorb new technology, knowledge, and skills, removing socio-cultural barriers to development, and promoting entrepreneurship.

In general, higher education graduates are likely to be more conscious of and better able to apply new technologies in various sectors of the economy. Thus, in a knowledge economy higher education can help economies keep up or catch up with more technologically advanced societies. Moreover, one critical role of higher education is to create learning environments that enhance students' abilities to make sense of their world in ways that enable them to change it for the better, for themselves and others, and to equally allocate "life chances" (Marginson, 1999, p.28). Education has to provide academic skills that engage students in understanding and applying various sorts of knowledge, critically and analytically, and social skills that cultivate consciousness of their citizenship and civic participation. This view is supported in Nguyen(2006)'s analysis of higher education and globalisation that instead of solely certifying students' knowledge with academic degrees and titles, the ultimate goal of higher education should be to provide benefits to society by training innovative, informed, and responsive workers who also possess cultural tolerance and understanding. Therefore, as suggested by Meulemeester & Rochat (1995), it is vital that the social, political, and economic structures and the technological level of the society to which the education system belongs are such that graduates can actually make use of their accumulated knowledge for sustainable socio-economic development of their communities.

As a repercussion of globalisation, all people are literally competing with everyone, from everywhere, for everything. And everything means the entire world's resources and markets. Everyone seems to be trying to grab the same things that everyone else wants, particularly the most precious and limited things: " . . . knowledge, capabilities, and, most importantly, people: leaders, managers, workers, partners, and, collaborators . . . " (Sirkin, Hemerling & Bhattacharya, 2008, p. 3). Globalisation necessitates neither equity, nor homogenisation. Under these circumstances, this knowledge-based competition within globalisation, institutions of higher learning are prompted to reconsider their role in socio-economic development.

1.3 Context and Status of Higher Education in East Africa

The history of higher education in East Africa can be traced back to 1922 when Uganda Technical School, later renamed Uganda Technical College, was established. In 1937, the college expanded into an institution of higher education before it became a University College of the University of London in 1949 (Makerere University, 2010). Afterwards, it became a college for the whole of East Africa, offering courses which led to awards and distinctions. Until the early 1950s, it was the only college providing university education in East Africa. In 1956 the Royal Technical College was established in Nairobi, Kenya. Then, in 1963, the Royal Technical College became the University College, Nairobi following the establishment of the University of East Africa with three constituent colleges in Nairobi, Dar es Salaam, and Kampala (Nyaigotti-Chacha, 2004). In Tanzania, up until the time of independence from British colonialism in 1961, there were no universities available locally. Africanising the workforce became the main challenge of nationalistic leadership, hence the establishment of the University College Dar es Salaam as a college of the University of London with fourteen students. It became a constituent college of the University of East Africa in 1963 (University of Dar es Salaam [UDSM], 2011). The University of East Africa offered programmes and degrees from the University of London until 1966. The dissolution of the University of East Africa in 1970 led to the creation of the three first autonomous public Universities of Dar es Salaam (UDSM), Makerere, and Nairobi in Tanzania, Uganda, and Kenya, respectively (UDSM, 2011).

East African countries are increasingly becoming cognisant of the principle that the capacity to assimilate knowledge, especially that knowledge attainable from higher education, is a key factor in any nation's struggle to catch up in all aspects of socio-economic development. The manifest expansion of the higher education sector seems to be inexorable in all of these countries. Table 1 below shows the number of universities in each country and their total student enrolment for the academic year 2009/10.

Table 1: Number of Universities in East Africa (2012)

	Tanzania	Uganda	Kenya
Public universities	8	5	7
Private universities	20	28	23
Total number of universities	28	33	30
Approximate enrolment	140,000	92, 605*	140,000

*Data available is for the academic year 2008/09
Sources: UDSM (2011); University of Nairobi (nd); Makerere University Fact Book (2011).

2 Methodology

This paper draws conclusions from analysis of data from primary and secondary documents belonging to the three oldest public universities in East Africa: The University of Dar es Salaam (Tanzania), Makerere University (Uganda), and the University of Nairobi (Kenya). These three are not necessarily representative of all public universities in East Africa but they possess many common characteristics and a shared history which render them key icons of higher education within the region. Up until data collection for this study began, these three universities were the oldest, largest, and most reputable public universities in their respective countries. Information about the background and priority activities of the institutions was chiefly obtained from the documentary analysis of the institutions' comprehensive strategic plans. Institution's websites and other documents supplemented the data needed for this study.

Analysis of literature from some textbooks and articles related to the history and reforms of the institutions was conducted to extract information pertinent to the current study. Selection of these documents was primarily based on the validity and reliability of the information. The information extracted was confirmed by analysing several sources for the same issue. Further, a structured questionnaire was administered to three staff in charge of institutional policy and planning for each of the three institutions. Information obtained from these nine questionnaires served the purpose of giving data for the three objectives of this study, especially the third one. Equally important, questionnaire responses could help to validate certain documentary information. Data obtained from all sources were sorted out and put into four themes: institutional setting of reforms, priority activities for internationalisation, institutional challenges, and other emerging issues related to institutional reforms. Each theme was closely analysed in relation to the objectives of the present study, and it was handled predominantly qualitatively.

3 Setting of University Reforms in East Africa

Many authors posit that the globalisation of higher education is linked to both various internal and external forces (Chinnamai, 2005). Approached differently, Chan (2004) and Haigh (2008) outline economic, academic, and socio-cultural drives to this phenomenon. While it is apparent there are many and diverse forces behind the globalisation of higher education, De Wit (2002) perceives that different institutions, stakeholders, and groups of individuals do not have a single exclusive reason for that trend.

Major reforms at the University of Dar es Salaam (UDSM) came at the same time as reforms in Tanzania's banking and financial sectors which had been mandated by the International Monetary Fund (IMF). Luhanga, cited in Bollag (2004, p.7), reveals that some people wrongly perceived that UDSM's reforms had also been mandated by the IMF. The 1980s global economic crisis left the University of Dar es Salaam with diminished government financial support. Luhanga further states that amid the darkness, the Faculty of Engineering searched for a new pathway. Due to factors including the low salaries of engineering academicians as compared to their counterparts employed in other sectors, it was this faculty which lost the most academic staff. Responding to this challenge, the Faculty of Engineering pioneered a series of reforms whose first step was to establish a Bureau for Industrial Cooperation (BICO) to promote consulting work and allow faculty members and their departments to earn extra money.

It was later thought necessary to replicate this model within the entire university. The first draft of this institutional strategic plan was presented in 1992 to a meeting of the university community and foreign donor organisations. This yielded a final publication of the Corporate Strategic Plan (CSP) in 1994 which has been the basic guide for the university's transformation. The plan plainly states that the university's mission must adapt to meet the profound changes taking place within the country. However, faced with a collapsing economy and pressure from global lending organisations, the government opened up the economy to private ownership and foreign investment. Therefore, the changing labour market required the university curricula to produce graduates with skills different from those traditionally offered. In response to the observed constraints and considering the current and new developments, nationally and globally, the university reviewed the CSP in 2003 to cover the period 2004-2014. The main focus areas of CSP 2004-2014 are to ensure capacity development, quality assurance, and outreach activities by closely reflecting upon the university's vision, mission, and its core functions (UDSM, 2011). The genesis of UDSM's reforms can be considered to be an example of a top-down revolution (Luhanga, 2003).

The reforms of the University of Nairobi were very much influenced by the Public University Inspection Board report which prompted all universities in Kenya to undergo a transformation to be compatible with the developmental and entrepreneurial qualities of the 21st century and address many issues including the increasing demand for access and equity. The paradigm shift involved a transformation of higher education for combating national problems and tackling global challenges. It is with this understanding that the University of Nairobi had to review the strategic plan of 2005-2010 and recast it to 2013 (University of Nairobi Strategic Plan, 2008-2013). The university was therefore

obliged to plan a new strategic direction while at the same time being increasingly aware of the importance of its position in a global community.

The institutional transformation of Makerere University is referred to as "a quiet revolution" by some authors (Makerere University, 2000, p. ii). Makerere University's institutional reform was essentially an implementation of alterative financial strategies as a response to the government's reduced commitment in financing higher education (Kwesiga & Ahikire, 2006). The university had to envision being market-oriented and one means to this path was the introduction of the private sponsorship programme in 1992 which significantly stretched the intake of fee-paying students. About seven years later, Makerere had leaped from a position of one where nobody paid fees to one where 80% of students paid fees, accounting for more than 50% of the university's total revenue. Emphasis on a private sponsorship programme notwithstanding, enrolment at Makerere University has been burgeoning yearly. Currently, the university is profoundly dominated by privately sponsored students (see Figure 4). Due to a public outcry that massive enrolment numbers are harmful to the quality of education, the Uganda National Council for Higher Education (NCHE) resorted to implementing student admissions ceilings for all programmes and to all universities within the country (Makerere University, 2010).

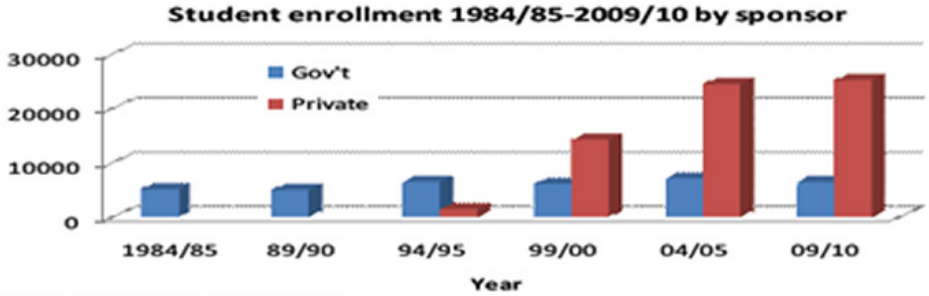

Figure 4: Makerere University enrolment by sponsorship (1984/85-2009/10). Source: Adopted from *Makerere University Fact Book (2011, p.11)*.

Analysis of these institutions' background for educational reforms suggests that their decisions to undertake institutional reforms were driven by different motives. Carnoy (1999) proposes three categories of reforms. The University of Dar es Salaam's reforms conform more to characteristics of *competitiveness-driven reforms.* These reforms focus on improving productivity, the quality of the "human factor" (Organisation for Economic Co-operation and Development, in Carnoy, 1999, p.37), and of the institution. Strategies to achieve competitiveness include decentralisation, quality assurance, improved management of institutional resources, and development of academic staff recruitment and training. The University of Nairobi experienced *equity-driven reforms* whose philosophy is to increase equality through increasing

accessibility to education. Ostensibly, Makerere University's interpretation of globalisation is increasing competition among institutions and nations in a more knotted, international economy, hence *finance-driven reforms*.

4 Priority Activities for Internationalisation

The strategic choice to address the implications of globalisation appeared to differ somehow in terms of scale of preference among these East African universities. Hereunder is the summary for the main priority activities of each university.

Table 2: Top Priority Activities for Internationalisation

University of Dar es Salaam	University of Nairobi	Makerere University
• Curricular reforms to encourage entrepreneurship skills. • Optimising the use of all the institution's resources through expansion of student enrolment to optimise the formerly overstaffed university and widening access to university education, • Upgrading Advanced Information and Communication Technology (ICT) infrastructure and enhancing information systems, • Increasing academic support through converting traditional teaching/ learning materials into electronic format, enhancing instructional technology resources (software & hardware), and promoting e-Learning initiatives, and • General staff development to improve the quality of education. *(Source: University of Dar es Salaam Revised Corporate Strategic Plan, 2004-2014)*	• Promoting innovative, diversified modes of delivery (technology & distance education), • Creating and enabling environment and policy framework that promotes research, development, and other value adding services, • Developing effective leadership systems: visionary, innovative leadership & management that is visible, open and transparent, and • attracts and maintains highly qualified staff, • Strengthening the existing partnerships and linkages and developing new ones, locally and internationally, and • Increasing internally generated revenue, instilling fiscal discipline in all operations, and maintaining a balanced budget. *(Source: University of Nairobi Strategic Plan 2008-2013)*	• Diversifying income • generation sources, • Investing in E-Learning • systems, • Engaging in International • partnerships and distance • education, • Boosting quality assurance • in order to become • internationally competitive, and • Expanding capacity in medical, technology, and • Science education. *(Source: Makerere University Strategic Plan 2008/09 – 2018/2019)*

The activities and strategies opted by these universities may directly reflect the aspects of internationalisation which are principally emphasised by each university. For example, the University of Dar es Salaam's competitiveness-driven reforms focus most on transforming the curriculum, above all, to prepare students with entrepreneurial knowledge and skills and on upgrading ICT infrastructure. In this way, students are prepared to be globally competitive not only academically but also socially and technologically. The University of Nairobi's equity-driven reforms focus chiefly on implementing innovative academic curriculum but with a special emphasis on fostering a flourishing environment for research. Makerere University's concentration is on income generation and expanding horizons for international partnership. Finance-driven reforms have made it possible for this institution to be an exemplary model in attracting privately-sponsored students, of which 50 per cent of the university's revenue is generated. Differences in priority strategies for globalisation may not necessarily be a fundamental reason for variation in the speed and nature of growth among institutions, but rather, may be a result of the firmness and consistency the institution employs to implement its priority strategies.

5 Most Challenging Issues

There are many challenges that universities in East Africa face as they struggle within the era of globalisation. These challenges mitigate the institutions' commitment to maximising their potential in realising their missions and goals. While these universities certainly face many challenges, this study unveiled the following to be the primary hurdles.

5.1 Massification of Higher Education

In regards to East African universities, UNESCO's basic *Education for All* movement (Jomtien, 1990) appears to have induced a *higher education for all* fallacy. In this paper, massification refers to the increase in student enrolment in higher education institutions (Mohamedbhai, 2008). This phenomenon directly induces a sharp increase in the number of institutions, as well as fundamentally different types of institutions, as the diverse needs of students become "reflected in the programmatic and institutional structures of the system" (Gumport, 1997, p.2). Most of these universities, especially private ones in Tanzania, Kenya, and Uganda, have mushroomed in size within the last decade. While the use of national enrolment ratios or participation rates may be appropriate to define massification of higher education in heavily industrialised countries, this may not necessarily be the case for less industrialised countries, like those sampled in this study. These countries have a very low higher

education enrolment to population ratio but they have experienced a very rapid increase in actual numbers of students enrolled in higher education within the last decade.

Accommodating large numbers of students wishing to access higher education in East African countries is imperative, which is why these three universities are critically overcrowded just like other public universities in the region. Poor planning coupled with a meagre supply of resources tends to exacerbate the problem of overcrowding. In Kenya, the admissions crisis had existed for decades and caused a backlog that had forced students accepted to the university to wait for two years before they could be admitted for studies. Recently, the government of Kenya has called for an end to the long wait through a double intake plan, admitting over 8,000 more students in 2011 than in the previous year (Ndanyi 2011).

Undesirable effects of massification notwithstanding, there are desirable effects too. For instance, by and large, massification is a good vehicle for widening access to higher education because one of the greatest needs of these countries is highly skilled and resourceful human capital to push forward the national development agendas. The belief is that *quantity yields quality in the long run.*

Furthermore, establishing and nurturing a truly competitive university calls for a direct involvement of national governments through practical policy intervention and financing. Although there are certainly many paths towards this effect, a choice may be required to be made from at least three pre-conditions as put otherwise by Liu, et al. (2011). Firstly, consider upgrading a small number of existing universities that have the potential for outshining others. Secondly, encourage a number of existing institutions to synergise. Thirdly, create new competitive universities from scratch. Each option has strengths and weaknesses which must be weighed accordingly.

5.2 University Autonomy

This study revealed that these three universities share a common cry for autonomy and academic freedom. Omari (1991) describes university autonomy as the extent of the proximity of the state to the university. University autonomy can be referred to as the freedom given to universities and manifested in processes such as governing themselves, appointing key staffs, determining the conditions of service of their staff, controlling their students, admissions, and academic curricula, controlling their finances, and generally regulating themselves as independent legal entities without unnecessary interference from the government and its organisations. Further, Mazrui, cited in Omari (1991), decries the proximity between the universities and the national structure of power which in African situations has tended to curtail academic

freedom and consequently, intellectual expansion among students and staff. For example, there have been reported cases of serious government encroachment on university recruitment and contract renewal of professors (University of Dar es Salaam), university budget and spending (Makerere University), and curriculum and timetables (University of Nairobi) as it can be reflected from the excerpt below:

> From now on, the University of Nairobi will be answerable to the government and to the ruling party. . . . I do not want to hear any more demands for such a thing as academic freedom. Who will give you academic freedom? Who pays your salary? Even at Cambridge, there is no such thing as academic freedom. Because the government pays it, they do what the government wants. What are you going to do with this academic freedom that you people of the University of Nairobi are calling for? (Former President of Kenya, Moi, cited in Chege, 2006).

In view of this paper, education is a political enterprise; accordingly, government intervention is absolutely justifiable and should be skilfully undertaken. What is worthy of cautioning here is not the involvement of the government *per se,* but rather the extent and manner of the interferences. It is neither feasible nor justifiable that any sensible government does not take part in its universities' affairs. With all these factors in mind, university autonomy is a necessity for achieving excellence. But, this alone is not a sufficient condition. Limitation to autonomy in terms of accountability to the state and other stakeholders is indispensable to ensure these universities' good governance.

The challenge regarding the university autonomy has always been in terms of how to position itself amongst the three strong categories of forces: professional, government, and market forces as portrayed by Clark's triangle (See Figure 5 below). Again, Tudiver (1999) warns:

> Universities driven by market priorities provide a limited contribution to democratic processes. They cannot foster the kind of debate and social criticism that thrives in an independent academy (Readings, 1996). The university is supposed to be a forum for open debate from all perspectives (p. 189).

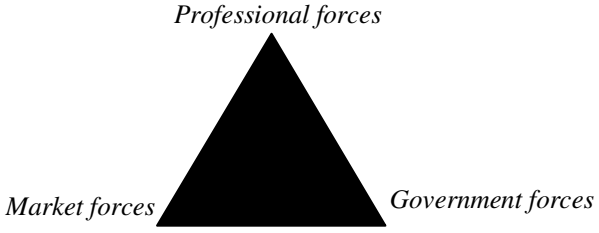

Figure 5: Clark's Triangle for Forces Affecting University Autonomy

5.3 Challenges Related to Emerging Technologies

Advanced Information and Communication Technologies (ICTs) hardware and software are still yet to be effectively exploited by these universities. For instance, there is an inadequate number of computing facilities (computers, printers, photocopiers, and scanners) in students' public access rooms. Although these institutions are better internet-connected compared to most public and private universities in their respective countries, the reliability of and access to them is daunting. In most cases, the campus buildings have a low capacity for these technologies, an obsolete backbone network infrastructure, and poor or unstructured Local Area Network (LAN). Similarly, Wireless Local Area Networks (WLAN), which is one among the many appropriate options for generating better technologies at these institutions, is seldom put to use. The National Networked Readiness Indexes (NRI) equally influences these institutions' extent of access to ICTs. The table below (Table 3) indicates that Kenya is ahead of Tanzania and Uganda in terms of access to ICTs.

Table 3: National Networked Readiness Index (NRI) of East African Countries

Country	NRI global ranking	Population (in millions)	GDP per capita (USD)	Internet users (per 100 people)	Bandwidth (Mbps/10,000 people)	Teledensity
Kenva	97	37.5	580	8	0.2	30.5
Tanzania	119	40.4	350	1	0	20.4
Uganda	120	30.9	300	6.5	0.1	13.6

Source: Bon (2010: 70)

Advanced ICTs are imperative for universities to discharge their functions more competitively in this digital era. Although one could expect all university classrooms and learning venues to be at least internet connected, the situation is such that very few classrooms are outfitted with such technologies, even in the most prestigious universities in the region. As such, common synchronous technologies like videoconferencing and web conferencing on one hand, and asynchronous technologies like discussion forums, Google, and wiki searching on the other hand, are quite rarely promoted within the classroom setting. In spite of the clear opportunities related to ICTs that these universities have, there is still a lack of real awareness about the benefits of ICTs as a result of biased mind sets, an unwillingness to face the technological changes occurring in universities, and a lack of a clear perception as to how ICT resources can be sustainably managed.

5.4 The Paradox of Internationalisation

While all these East African universities would confidently declare to be effectively implementing internationalisation strategies, this study revealed that

in most cases there is actually more *localisation* and *regionalisation* than internationalisation. For instance, regarding enrolment of international students, Makerere University admitted 1,135 foreign students in 2010/11 (3.4% of total enrolment) out of which 1,023 (90%) came from Kenya and 88 students (7.8%) from Tanzania. Only 3 students enrolled at Makerere in 2010/2011 were non-African nationalities. The average percentage of international students being admitted at the University of Dar es Salaam for the period 2005-2010 was 3.5%, of which, similarly, was comprised mostly of students who hailed from East African countries. It can be argued that these 'international' students are not international in a strict sense, but rather 'regional' students.

Literature, however, suggests that this may be the trend of many institutions worldwide. For example, reviews of studies for two Asian national (public) universities which are regularly within the top 50 world universities corroborate this finding. Out of 28,017 students enrolled at the University of Tokyo in Japan in 2011 2,540 (9.1%) were international students (The University of Tokyo, 2011). Among these international students, 1,678 (66.1%) are from nearby China and Korea. Analysed otherwise, 2,443 international students (96.2%) out of the total 2,540 international students at Tokyo University came from other Asian countries. Although the readily available statistics for Seoul National University in Korea (SNU) did not provide a breakdown of the composition of international students, a simple observation proposes that it is not an exception. Of the total enrolment of 28,018 students in 2011 at SNU, a mere 2,486 students (8.9%) were international students (Seoul National University, 2011).

It is thus most likely that in many universities, globally 'international' students are actually 'regional' students from the closest neighbouring countries regardless of the way the institution may try to express its outlook. There is a potential for synergy between internationalisation and regionalisation of higher education but one can just as well limit the success of the other depending on their focus. In these universities, internationalisation has mainly involved new forms of providing higher education to students, but sometimes without necessarily being of relevant curriculum to suit local needs. Concurrently, regional approaches in the context of broader Pan-Africanism on the implications of internationalisation on the continent are being implemented. As such, internationalisation in these universities poses numerous questions in relation to the extent and intensity of their capability to address local and regional access, equity, research, and development agendas.

There is, yet one issue seemingly unresolved, institutions, including universities, are usually encouraged both to cooperate and compete with each other. However, in business spheres there is a *paradox of cooperation and competition.* How can the two exist concurrently? Unless the institutional

leadership is flexible and prudent enough, balancing cooperation and competition becomes a truly tricky task.

5.5 Students' Welfare

It has been established that these institutions are constantly challenged by student strikes which appear to be recurring annually for a decade now. In 2011 alone both Makerere and Dar es Salaam universities experienced their students going on strike at various times. Nairobi University witnessed their academic staffs' strike in 2011 and their most recent student strike in 2010. The persistent student strikes are, by and large, one key symbol of student welfare anomalies. Every time students go on strike they express to the respective authorities their desire for ultimate solutions. Normally, going on strike is said to be the last resort after having used all other traditional bureaucracies to express their demands. Despite the costs in terms of time, destruction and loss of property, injuries, and even deaths of innocent individuals, ample evidence confirms that these strikes have ended with authorities' positive responses to the students' demands.

Student strikes are repeatedly associated with rising tuition fees, biased Students' Loans Board procedures, poor housing and sanitation facilities, and dissatisfaction with general learning conditions on campus. Although student welfare is a critical component of any university planning, it is often overlooked in some university planning agendas. Some educators and administrators tend to deliberately bypass issues directly related to student welfare. For instance, despite the good motive of recommendations such as: "*the admission of students to state universities should be de-linked from bed spaces, but be linked to availability of academic and tuition facilities,"* as summarised by Kinyanjui (2007), are criticised right away. Housing problems are among the key sources of student frustrations, thus, leaving the task of hunting for housing on students themselves. This is seriously risky, particularly when one considers the complexities and exorbitant expenses involved in searching for accommodations near these urban universities. Most importantly, the majority of private housing facilities and transportation to and from the campus are of very poor quality and unsafe. To promote universities which can effectively compete in this era of globalisation, institutional and national policy makers have to consider students as major partners and responsible stakeholders in the process of policy making.

6 Opportunities for East African Universities

- *Growing recognition of the role of higher education in national development.* National governments in East Africa are rapidly

acknowledging the critical contribution of higher education to socio-economic development plans.

- *Institutional internationalisation strategies*. The increasing admission of foreign students, academic staff collaboration in research, and numerous international conferences foster cross-fertilisation of ideas.
- *Strategies and innovative use of ICT and access to fast broadband internet.* Innovative use of ICTs boosts international research activities and improves the local publishing infrastructure.
- *Stable collaboration with global development partners.* These universities enjoy long-term stable partnership and strategic development assistance from many reliable global partners such as the Africa Institute for Capacity Development (AICAD), Lake Victoria Basin Research Initiative, Norwegian Agency for Development Cooperation (NORAD), Swedish Sida/ Sarec, and the Carnegie Corporation.

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Attractions to and Challenges involved in Studying Abroad: the Case of Kampala International University Students

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Abstract. Uganda is a major foreign higher education student receiving country in Eastern Africa. However, hitherto, the factors attracting foreign students to the country and the challenges the students encounter in studying in the country had not attracted scholarly attention. Therefore, taking the case of Kampala International University, this study investigated these attractions and challenges. Using questionnaire, data were collected from a random sample of 120 international students and analysed using percentages. The findings were that the quality with which Ugandan higher education is associated; security in Uganda; diversity and flexibility of study programs and schedules in the country's higher education system; friendliness of student immigration policies; and affordability of study programs attract foreign students to the country. Conversely, rising costs of living, language barriers and differences in pre-university academic achievement grading systems between Uganda and some foreign student sending countries were identified as the main challenges facing the international students.

Keywords: International students; Study abroad; Cross border education

1 Introduction

The world over, study abroad is one of the fastest growing elements of higher education (Brooks & Waters, 2009; Cross & Rouhani, 2004; Lassegard, 2006). In the East and Central African region, Uganda is a top higher education student receiving country. In 2006, for example, the country attracted 11, 992 students (Ministry of Education and Sports, 2006). Kampala International University (KIU) attracted majority (56%) of these students and, indeed, the university exhibits a significantly diversified foreign student population (Table 1).

Table 1: Distribution of Foreign Students at KIU by Nationality (2008 / 2009)

Nationality	Number of Students
Angola	3
Bangladesh	1
Burundi	15
Cameroon	2
Comoros	1
Denmark	1
DRC	16
Eritrea	22
Ethiopia	7
Germany	1
India	4
Ivory coast	1
Kenya	2,655
Liberia	2
Malawi	2
Nigeria	8
Philippine	3
Rwanda	223
Somali	185
South Africa	1
Spain	1
Sudan	297
Sweden	2
Tanzania	433
USA	5
Zambia	2
Zimbabwe	1

Source: *KIU Databank*

Clearly, as is the case with study abroad in other countries and higher education institutions, the international students at KIU bring several advantages to the university and the country as a whole. Ensuring that these benefits are maximised requires that the factors attracting the foreign students to the university and the challenges that they face in their efforts to study at the university are well understood. Hitherto, however, research had not been conducted into these attractions and challenges. Thus, this study was conducted to fill this knowledge gap. The study undertook to respond to two research questions: 1) what are the main factors attracting international students to study

at Kampala International University? 2) What are the main challenges faced by the international students at Kampala International University?

2 Methodology

2.1 Basic Assumptions

The study was based on the assumption that; 1) a random sample of international students is satisfactorily representative of the international students at KIU; and 2) international students are conversant with the attractions to study in Uganda as well as the challenges faced by international students in the country, since these students were going through the experience of study in the country as foreign students. The inference here is that the data collected and, subsequently, conclusions drawn were taken to be valid.

2.2 Design

The study was carried out following a case study design, because its specificity of focus would allow identification of features that are unique to the bridging program, enabling the researchers to understand its effectiveness and the factors influencing it (Bell, 2005). Notwithstanding, it is offered for generalisation at a national level because KIU is the flagship foreign student receiving country in Uganda, meaning that data collected from the institution may be representative of the national situation. Cross sectional data on the factors attracting international students to the university and the challenges that the students experience were collected from the students themselves. Additional information required for the study on the education systems of the students' sending countries were culled from relevant documentary sources.

2.3 Sample

A random sample of 120 respondents was involved in the study. The students were drawn from the finalist cohort of the 2009/2010 academic year and included those specialising in Arts/ Humanities, Science/ Technology and Mixed study programs. The cohort was prioritised because its members had been involved in study in Uganda for a reasonably long period of time for their views on both the attractions to study in the country and the challenges involved in the experience of study in the country to be taken as plausible. Out of 120 questionnaires administered, 88 were retrieved representing 73 per cent return rate, which is satisfactory.

2.4 Data Sources and Instrument

Data on attractions to study at KIU and challenges experienced in studying at the university were collected using a questionnaire that was administered to the international students that were involved in the study. The questionnaire had two parts namely; 1attractions to study at KIU; and 2) challenges confronting foreign students at the university. The reliability of the instrument was established using the test retest method while its internal consistency was established using Cronbach's Alpha. Pearson's correlation coefficient for the results of the first and second tests of the instrument was .78 while Cronbach's Alpha coefficient was established at .82. Key informants were also interviewed on the ways in which the university is responding to the challenges affecting international students at the university.

2.5 Analysis

The students' responses on the factors attracting them to study at KIU and those on the challenges that they experienced were categorised along the themes that they pointed to. Each response was categorised under a theme. In instances a response could not be categorised among the themes that had been developed, however, a new theme would be developed. Accordingly, the respondents' views were tallied among the themes. Thereafter, frequency counts of the tallies were obtained. These were then converted into percentages and presented on tables.

2.6 Limitations

The sample size was not scientifically derived from the population of international students at KIU. Thus, the conclusions of the study may neither be exhaustive of the attractions to study at the University nor generalised to the entire international students' population at the university and in the country as a whole.

2.7 Ethical Considerations

The study was conducted with the informed consent of the management of KIU. Anonymity of the respondents was also ensured through concealing their identity and reporting the findings of the study in aggregates.

3 Findings

3.1 Factors Attracting International Students to KIU

The factors attracting international students to study at KIU are summarised in Table 2.

Table 2: Factors Attracting Foreign Students to KIU

Factor	N	Agree	Rank	N	Disagree	Rank
Affordability	68	77.4	10	20	22.6	6
Duration of program	75	85.5	4	13	14.5	12
High standard of higher education	69	78.5	7	19	21.5	9
Efficiency of the higher education system	77	87.8	2	11	12.2	14
Love for exposure	61	68.8	11	27	31.2	5
Buoyant economy	55	62.2	12	33	37.8	4
Relative peace and security	76	86.9	3	12	13.1	13
Employment opportunities	38	43.4	14	50	56.6	2
Hospitality of the people	69	78.0	9	19	22.0	7
Less stressful immigration procedures	70	79.5	6	18	20.5	10
Social facilities (power, water, etc.)	69	78.3	8	19	21.7	8
Cultural affinity	55	62.0	13	33	38.	3
Marriage demands	23	26.5	15	65	73.5	1
The Charter status	81	92.5	1	07	7.5	15
Staff and student discipline.	72	81.5	5	16	18.5	11

Table 2 shows a rank order of factors attracting foreign student to higher institutions in Uganda. Top on the list is the granting of charter status with 92.5% followed by the efficiency of the higher education system (no frequent strikes) with 87.8% while 86.9% indicated their option for higher institution in Uganda as a result of relative peace and stability. Also sharing a high scores are factors like duration of programme (85.5%), staff and student discipline (81.5%), among others. On the contrary, two most pressing issues not likely to attract foreign students include marriage demands (73.5%) and the possibility of employment opportunities after graduation (56.6%). By marriage demands, we mean the tendency that inter-marriage with Ugandans may inform attending a Ugandan higher institution.

3.2 Challenges Facing International Students at KIU

The findings on the challenges international students at KIU face are summarised in Table 3.

Table 3: Challenges Facing Foreign Students at KIU

Challenge	N	Agree (%)	Rank	N	Disagree (%)	Rank
Language and communication	45	52.9	9	41	47.1	3
Difference in credit system	61	70.6	4	25	29.4	8
Cultural diversity/ barriers	45	52.4	10	41	47.6	2
Financial constraints	60	69.9	5	26	30.1	7
Family pressures	42	48.8	11	44	51.2	1
Police presence on campus	52	60.7	7	34	39.3	5
High cost of living and accommodation	73	85.4	1	13	14.6	11
Poor orientation of new students	52	61.0	6	34	39.0	6
Short time for research and consultations	51	59.8	8	35	40.2	4
Penalties for late registration	65	75.5	2	21	24.7	10
High fees	62	71.8	3	24	28.2	9

Table 3 shows that high cost of living and accommodation (85.4%) around university locations, high fees added to penalties for late payment of fees (71.8% and 75.5% respectively); the rigorous processes involved in conversion of certificates tendered for admission into degree programmes (70.6%) and even very tough financial constraints are the first 5 very serious problems confronting foreign students in Ugandan higher institutions especially the private ones. In addition, foreign students, especially those from non-pure English-speaking countries like Sudan, Rwanda, Eritrea, and Somalia have the problems of language communication (52.9%). The magnitude of language barriers is particularly pressing because many of the international students hail from non-English speaking countries (Table 4).

Table 4: Distribution of International Students by Language of Sending Country

Official Language	Number of Students
Amharic	7
Arabic	482
Danes	1
English	2683
French	257
German	1
Hindu	1
Kiswahili	433
Portuguese	3
Spanish	2
Swedish	2
Tigrigna	22
Grand Total	3894

Source: *KIU Databank*

Table 4 shows that the international students at KIU hailed from twenty six countries. Many of these countries do not use English as a medium of instruction, so students from the countries are encumbered by the use of English as the lingua franc and medium of instruction at the university. Incongruence between the education structure and, subsequently, credit system of the international students' sending countries and Uganda's structure was also cited as a challenge (Table 2). This is corroborated by the findings from the university's databank, indicating that majority of the international students came from countries with education systems that are incongruent with Uganda's system (Table 5).

Table 5: International Students by Sending Country's Education Structure

Sending Country's Structure of Education	No. of Students
4-5-5-5	1
5-5-5-3	4
5-5-2-4	16
7-6-5	1
6-3-3-4	2
6-3-3-4	8
6-4-2-4	223
6-7-2	1
7-6-3	17
6-4-4	3
7-4-2-3	433
9-6-4	15
7-5-3	2
7-5-2	2
8-4-4	2,841
6-4-2	1
9-3-4	297
9-3-3	25
12-4-4	7
Total	3899

Source: *KIU Databank*

3.3 KIU's Response to Challenges Affecting International Students

3.3.1 Graduate Management Admission Test (GMAT)

Admission of applicants into graduate schools in KIU is processed with the performance in GMAT. It is an objective measure of academic abilities to

supplement subjecting criteria used in the selection process such as interviews, grades and references. This according to Jaffe and Hilbert (2006) allows prospective students to be tested under similar conditions in using the same grading standards in order to establish a more accurate picture of their all-round abilities.

3.3.2 Bridging Course

The Access programme is a pre-university programme designed for students who do not meet the minimum qualification for entry into KIU degree or diploma programmes. It is a straight term of six (6) months with two continuous assessment in-between of 800 hours of lectures and qualifying examinations exclusively for non-Ugandans without Advance Level Certificates. Students who hold a Kenyan Certificate of Education (KCSE) and other related Certificates from other Countries i.e. 8.4.4 system and wish to enrol for either Degree or Diploma courses have to pass through the Access Programme. To qualify for the Access Programme, students of the previous Access groups, 1,2,3…16 required a minimum mean grade of C-(Minus) but has now been revised to C(Plain) Since March 2004 intake. The result is equivalent to Uganda Advance Level Certificate which is required for normal University admissions for Bachelors Degree.

3.3.3 Language and Communication Skills

A two-semester core course called English language and communication skills I and II has been introduced to upgrade students proficiency in written and spoken English. It is compulsory for all and has been immensely useful for applicants from non-English speaking countries admitted into KIU.

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Administrators' Perspectives on Strategies for Enhancing the Quality of Higher Education in Nigeria

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Abstract. The quality of education being provided in Nigeria is a source of concern to many stakeholders. This is particularly true of the higher education sub-sector of the country's education system. Thus, there is need for suggestions on ways through which these concerns may be addressed. This paper attempts to respond to this need by giving administrators' perspectives on strategies for enhancing the quality of education in the country. Starting with elucidation of the concept of quality in education, the paper propounds a tripartite model of quality in education. Using the model as an analytical point of departure, the paper discusses the gaps in quality assurance in Nigerian education and makes recommendations for improvement.

Keywords: Quality assurance; Education administration; Nigeria

1 Introduction

The quality of education being provided in Nigeria has been a source of great concern to all stakeholders in the industry. In recent years, the Academic Staff Union of Universities (ASUU) has on many occasions expressed her concern about poor state of Nigerian education particularly at the university level, in terms of poor quality of the graduates which is a consequence of poor academic environment.

The proliferation of privately sponsored higher educational institutions was a result of poor quality in the education system of the country at this level of education (Olayemi 2001). Evidence abounds for this low quality education and these factors are identified as follows: poor examination results; unemployment after schooling; unruly behaviour of school children; lack of seriousness on the part of students; poor work attitude of teaching personnel; poor teaching/learning environment.

Negative views have been severally expressed in all the three levels of the country's education system. These views suggest that Nigerians are dissatisfied with the country's education system. Hence the need to embark on strategies for enhancing the quality in education which will lead to fruitful results in the system

1.1 Concept of Quality Education

The word quality connotes the degree of excellence of a product or service. Awokoya (1990) refers to quality in education as the relevance and appropriateness of the process to the needs of the community of the education offered. He points out that relevance varies from one level and type of education to another, since the objectives set for education at various levels vary.

Quality of education is relative and exists in degrees or standards. The quality of education like relevance of education varies from one education system to another and it is not static. It varies with time and societal expectations. It cannot be totally divorced from the objectives set out for education in any particular country, based on the needs of the people of the country (Adeyemi & Nwosu, 2010; Egwurube, 1990, Olagboye, 2000). Obanya (2002) stated five important points to bear in mind about quality issues in education: They are as follows:

1. Quality can be observable and tangible and its effects can be easily felt.
2. Quality is not something you wait till the end of the process to see, but something which is (or should be) built into all phases of the development of an educational programmes
3. Quality is not a one dimensional construct, but a tripartite affair, with its inputs, process, and output dimensions.
4. Quality in education can be specifically targeted.
5. The educational development process can be systematically engineered to work towards quality.

Obanya (2002) goes further to illustrate the complexity of the issues which should be taken into consideration while working towards quality in education (Table 1). It is only a combination of quality inputs and quality processes that will lead to quality products (outcomes).

2 Indices for Improving the Quality Education

The following are some indicators of quality education.

Table 1: Tripartite Model of Quality in Education

Inputs	Processes	Outputs
Society	• Popular involvement in Implementation • Societal acceptance of the programme	Successful learning • Acquisition of socially desirable intellectual and non-intellectual skills • Continuing interest in learning
Policy	• Adaptability to local conditions • Democratic policy review practices	
Management Framework	• Decentralisation/devolution of powers down to the grassroots level • Empowerment and autonomy for operators	
Curriculum	• Responsive to societal and individual need • Comprehensiveness: coverage of the three h's (the head, the hands, and the heart) • Adaptable to changing times, changing needs, and changing conditions.	Full-fledged societal support • Permanent, unqualified society's interest in the promotion of Education
Teaching Force	• Quantitatively adequate • Adequately educated and professionally prepared • Adequately able to promote teacher-pupil • Interaction to maximise learning • Well-motivated through appropriate welfare package, professional support and opportunities for self-improvement.	Motivated teaching and educational management force • Teachers fully devoted to continuous self-improvement for concerted promotion of Education
Infrastructure	• Quantitatively, aesthetically and spaciously adequate • Learner and teacher friendly • Integrated pedagogical space of classrooms-laboratories-libraries, toilets, water, farms-workshops, etc.	Self-regenerating educational system for a self-regenerating society • Committed society, a critical mass of productive/creative citizens an education system that goes on improving.
Materials	• Quantitatively adequate • User friendly, easily exploitable and challenging to both teachers and learners • Mix of print-audio-aural materials • Closely related to curriculum goals	
Funds	• Quantum (adequacy) of funding • Targeting funds to those things that will really make a difference • Prompt releases of funds • Prudent application of funds.	

Source: Obanya (2002)

2.1 Teaching Personnel Training and Development

The need for quality education informed the special attention to teaching personnel continuous training and development through various programmes, so as to update their knowledge and improve their skills. The main purpose of teacher continuing education is to improve education in all its ramifications.

The National Policy on Education (FRN, 2004) places emphasis on teacher education. The policy specifies that teacher education is aimed at:

1. Producing highly motivated, conscientious and efficient classroom teachers for all levels of the educational system.
2. Encouraging further the spirit of enquiry and creativity in teachers
3. Helping teachers to fit into the social life of the community and society at large and to enhance the commitment to national objectives.
4. Producing teachers with the intellectual and professional background, that is, adequate for their assignment and to make them adaptable to any changing situation not only in the life of the country, but in the wider world.
5. Enhancing teacher commitment to the teaching profession.

All these objectives no doubt go a long way in determining the quality of education the in country. Effective teacher training programme will bring about quality in education. In the words of Adeboyeje (2000), using a functional notation, quality education is said to be a function of effective and adequate teacher training and preparation. He postulates that the correlation between the concepts may be expressed as Qe = *f*(Tt) where: Qe = quality education; (Tt) = Teacher Training; and *f* = functional notation.

Qe is a dependent variable, while Tt is an independent variable. Before a qualitative education can be achieved, the teachers must undergo adequate and effective training programmes: Mgbako-Ezennia (1992) cited in Adeboyeje (2000) and Adeyemi (2007) states that the ability of the teacher is crucial determinant of the quality of education in any society… teachers with bare competence are not likely to help the youths meet the challenges of modern living.

In achieving quality education through effective teacher training and development, the following suggestions can be taken into consideration:

1. There is a need to harmonise the internal and external criteria of quality – (i.e. raising standard of excellence of the teacher education programme).
2. An effective supervisory system should be injected into the education system
3. Programmes of public enlightenment and teacher training aimed at developing the awareness and understanding on the central place of the teacher as a great influence on learning should be mounted by the government.
4. The problem of acute shortage of qualified teachers in sciences, mathematics and other various technical disciplines should be solved by motivating which could be done through bursary/scholarship awards.
5. Teaching performance of individual teachers should be ascertained and improved through various in-service strategies such as workshops, seminars,

> conferences, short/long vacation courses, which should form part of the promotion criteria.

A clear and firm statement of teaching personnel development policy is highly essential; it should be formally approved for use by the Ministry of Education. Each state can have "State Development Board', which will be charged with the responsibility of indicating what, should be done regarding the development of teaching staff.

2.2 Training of Educational Administrators

The educational administrator works with and through people to accomplish the educational goals. Hence it is imperative for educational administrators to be sensitive to human factor so as to bring about quality in education. It is a fact that you cannot give what you do not have. The dynamic nature of life generally, and that of education in particular calls for personnel that are current in trends and issues in educational policies, aims and objectives which are designed to advance knowledge.

Human beings are complex in nature, making the job of administration very sensitive, thus anyone who is to be entrusted in administrative post must be well trained in theories and principles and in addition to these, must be able to apply them practically. The point being stressed here is that educational administrators need some professional preparation so as to function effectively as school leaders, which will invariably lead to quality education.

The identification of training needs of educational administrators could be determined by

> Examining the critical abilities needed by educational leaders. As people who help in determining education policies, participate in the implementation of policies, and are in charge of coordinating, controlling and supervising organisational activities, they are expected to possess certain knowledge, skills and abilities (Nwagwu, 1990: P.9).

Nwagwu (1990) citing Love (1986) identified such abilities as to work with people; think analytically persuade and convince others; communicate effectively; take appropriate and timely decisions; see broad relationships; be diplomatic within a political environment; and organise and control a management system.

It has been observed that all educational administrators do not have competence in all the identified abilities (Nwagwu 1990). Therefore, for each target group to be trained, we should identify which abilities are the educational administrators deficient in, and then focus training on these. Ogundare (2005) identifies some techniques for determining training needs. They are:

1. Requests made by top administrators for special training for less experienced managers.
2. Recommendations of management audit panels on the type of training needed by identified administrators.
3. Interviewing managers themselves to find out their specific training needs.
4. Analysis of the skills needed for the job of managing the organisation.
5. Group conferences at which management training needs are discussed together with organisational needs.
6. The use of tests or examinations in order to determine deficiencies in the skills and abilities of managers.
7. The use of questionnaires to survey the requirements of administrators for training purpose.
8. Studying the personal files and records of administrators or those being proposed for training.
9. Performance ratings of managers by either their superior officers or their subordinate officers.
10. Reports prepared by supervisors or inspector who interact frequently with the administrators.
11. The future needs of the organisation and the type of management staff needed for changes and innovations.

The training does not necessarily need to e specialised or that all educational administrators should possess doctorate, master or bachelor degrees in educational administration. It is just to ensure that the basic training exists in the principles and practice of educational management. The training can be organised by the ministry of education or any authorised body, saddled with supervision/inspection of schools, or the universities/colleges of education. The National Institute for Educational Planning and Administration, Ondo, was established in 1992, with the mandate to develop "a critical mass of education sector planners and managers for the effective planning and management of the education system through capacity building, continuous training, monitoring and information dissemination" (NIEPA 1992). Specifically, the objectives of the institute are:

1. The provision of specialised and relevant planning skills for Nigerian;
2. The provision of educational management and development activities like training, consultancy service, research and development;
3. The continuing professional development of practitioners through planning and implementing training programmes directed at equipping and enhancing the competence of serving officers in educational planning and administration;
4. The organisation and management of programmes of consultancy services to the educational system;

5. The projection and forecast of future trends in educational management and practices and their relevance to education in Nigeria;
6. The monitoring and review of regional and world trends in educational management and planning practices;
7. Serving as a resource centre and network of information in educational planning in Nigeria.

The time of training should be during the short or long vacations. Assessment of participants should be conducted and graded certificates should be awarded. Professionally qualified educational planners and administrators equipped with modern technologies of educational management should be in charge of educational organisations.

2.3 Funding

Of all the various problems facing education in Nigeria, none is as persistent and virulent as the insufficient funding. A vital determinant of assuring quality in education is funding. In the words of Coombs (1968) money is an absolutely crucial input in any educational system. It provides the essential purchasing power with which education acquires its human and physical inputs: With too little money, education can be helpless. With an ample supply, its problems become more manageable, even though they do not vanish.

Hinchliffe (2003) submitted that the Federal government expenditures on education between 1997 and 2001 are below 10% of its overall expenditures. The shares have varied between 9.9 and 7.6% as shown on Table 2, and the trend has been largely downward. This submission of Hinchdiffe is in sharp contrast to the UNESCO's recommendation of 26% share for expenditure on education.

Table 2: Federal Government Expenditure on Education as Share of Total Federal Government Expenditure (1997-2002, %)

	1997	1998	1999	2000	2001	2002
Recurrent	12.3	12.0	11.7	9.4	9.5	9.1
Capital	6.1	7.5	5.0	8.5	6.0	6.0
Total	9.9	9.6	9.0	9.0	7.6	8.0

Source: Herbert (2002) Hinchliffe (2003) and cited by Adeyemi and Nwosu (2010)

The sampled state governments' total expenditures on education and its distribution across levels vary considerably (see Tables 3 and 4). Table 4 indicates that all the states selected for the study have more than 50% of the allocation for secondary education except Oyo State which has just 37.6%. The

implication of these allocations especially at the federal level cannot bring about quality in education.

Table 3: Share of State* Government Education Expenditure (%)

State	1995	1996	1997	1998	1999
Enugu	20.1	15.6	20.2	14.8	17.0
Rivers	25.0	18.4	16.0	19.2	9.2
Borno	13.3	16.6	9.9	21.2	12.6
Oyo	14.6	12.6	13.0	11.4	11.6
Benue	34.6	28.1	24.4	21.5	29.9
Anambra	28.0	28.9	33.5	16.0	27.4
Niger	15.3	17.3	32.4	16.4	27.5
Ekiti			35.6	22.9	27.1
Jigawa			23.0	21.0	16.8
Kano				11.0	13.8
Plateau				21.7	19.0
Lagos					24.8
Median	20.1	17.3	23.0	19.2	18.0

∗Selected States
Source: Herbert (2002) Hinchliffe (2003) and cited by Adeyemi and Nwosu (2010)

Table 4: Share of State* Government Education Expenditure by Educational Level (1998, %)

State	Primary	Secondary	Tertiary	University
Enugu	17.0	52.7	30.3	0.0
Rivers	9.7	50.6	21.4	18.3
Borno	5.0	69.1	25.8	0.0
Kano	9.2	66.3	24.5	0.0
Plateau	3.3	83.9	12.8	0.0
Benue	11.9	50.2	15.3	22.2
Ekiti	10.4	66.2	13.0	10.4
Niger	13.8	65.8	16.6	3.8
Oyo	23.1	37.6	27.5	11.8
Average	11.4	60.3	20.8	7.4

∗Selected States
Source: Herbert (2002) Hinchliffe (2003) and cited by Adeyemi and Nwosu (2010)

The problem of financing education has become so critical that it continues to re-echo in public lectures, seminars, conferences and workshops, even on television and radio programmes. The continued closure of public schools, arising out of teachers 'industrial action over the last four to five years, were the aftermaths of inadequate funding. It is not an exaggeration to state that education system is experiencing financial starvation. Many tertiary

institutions, especially university have been forced to skip an academic session or two due to strike actions embarked upon by Academic Staff Union of Universities (ASUU).

The estimates of government education expenditure in Nigeria as a share of GDP and total government expenditure when compared with other sub-Saharan African countries are relatively low. UNESCO's World Education Report 2000 presents the data for nineteen (19) countries across sub-Saharan Africa for 1996. The average share of GDP was 4.7% and of government expenditure was 19.6%. In both cases, the measures of educational expenditures for Nigeria are 2.3% and 14.3% respectively.

The shares across education levels in Nigeria when compared with eighteen (18) other sub-Saharan countries in 1996, the shares were 48% primary, 31% secondary and 21% tertiary (UNESCO, 2000). The allocations to primary schooling were significantly lower in Nigeria and those to tertiary education were significantly higher. However, Obanya (2002), opinionated that the emphasis should not merely be on more funds, but should be more on improving the funding process. He therefore, suggested the following:

1. A more rigorous analysis on what should be funded, with a strong emphasis on those things that are likely to have positive, multiplier effects on Education;
2. Programming activities and projects to rhyme with the availability of funds;
3. Dwelling more and more on the cost-effectiveness of educational programme;
4. Improved management of available funds, including a very meticulous check on corruption and all cases of misappropriation of funds; and
5. Diversifying the source of funding, i.e. going beyond government to other sources.

3 Curriculum Planning and Implementation

According to Daramola (1995), the planning of a curriculum is:

> … a phase of curriculum whereby goals of the curriculum to be developed are clearly highlighted by a well constituted body depending on the political system of the society in which the curriculum is to be used (Daramola, 1995: pg. 27).

The experiences to be acquired are guided by:

1. The philosophical framework of the society;
2. The political system of the society;
3. The financial standing of the society; and

4. The availability of appropriate personnel and facilities for good curriculum design.

In Nigeria, however, the problem of achieving the goals and objectives of quality in education is not that of planning but implementation. In recognition on this fact, Daramola (1995) stated that "our experience and expertise to tackle curriculum development in many subject areas are recognised but our major problem lies with implementation". Suffice to say therefore that no education system can rise above the planned and implemented curriculum, just like the calibre of teachers in the education system. To ensure quality in education, the curriculum process must have in-built mechanisms. The following suggestions as given by Ojadele (2000) will help to enhance the quality education in Nigeria through curriculum planning and implementation:

1. Efforts should be made to make learning experiences and the contents of the curriculum to be relevant to the needs of the Nigerian society, as well as to suit the age, experience and aspirations of the learners. This is to satisfy the principles of suitability and relevance not only on the part of the learners but the community which the curriculum is expected to serve.
2. The planning and implementation of curriculum must involve a cross-section of stakeholders in the education sector for the curriculum to achieve quality education. This will include teachers, learners, parents, trade unions, religious bodies, educational administrators, professional organisations, etc. The inputs of the aforementioned bodies and organisations will help enrich the curriculum so designed and guarantee quality education. At the implementation stage for instance, involvement of parents is crucial since they are expected to be actively involved in the education process of the children/wards through encouragement and provision of educational material needs.
3. Curriculum should pass through all the necessary planning and implementation stages for quality control. Also the problems encountered at each stage should be noted and rectified before moving to the next stage.
4. In ensuring quality control in curriculum implementation, the Quality Control/Inspectorate Division/Curriculum Implementation Unit at Federal and State Ministries of Education have crucial roles to play in ensuring that the curriculum is implemented in line with the stated aims, goals and objectives, particularly at the school level. To effectively achieve these goals, Inspectors of Education should be provided with necessary tools that will help them to reach their goals.
5. Evaluation assists in achieving effectiveness in curriculum implementation. It shows how effective the selected learning experiences and contents are in achieving the stated goals and objectives. It allows feedback into the system and provides opportunities for corrections to be effected early enough,

particularly at the planning and implementation stages of the curriculum. Thus, it is only through evaluation that a curriculum can be judged as suitable and of good quality in achieving high standard.

6. Economic consideration is very important in the choice of a curriculum. It is equally important that economy should not be used as a factor to reduce the qualitative goal of education. The 6-3-3-4 system of education was introduced in 1981 with the hope of enriching the quality of Nigerian education. The education system is on the verge of collapse due to shortage of funds and faulty implementation among other teething problems.
7. Political considerations cannot be divorced from any system of education. However, while political consideration should continue to be a good factor of note in curriculum planning and implementation, it should not be allowed to have negative effect on the quality of curriculum in particular and education in general.
8. Effective curriculum planning and implementation leading to quality education can only be guaranteed when adequate data are collected, analysed and used appropriately for various decisions concerning curriculum, its planning as well as its implementation.
9. It is important that to guarantee quality education, curriculum planning and its implementation should be revised continuously to accommodate social, cultural, historical, political and economic factors.

In addition, Obanya (2002) opines that to make education relevant in Nigeria requires a strong emphasis on curriculum enrichment which should include

1. General education (general exposure to broad fields of knowledge and ways of knowing) as foundation for more specialised education;
2. Teaching/learning methods that dwell more on developing analytical /communicative/ manipulative/ finding-out skills and on logical (verbal and quantitative) reasoning i.e. the skills needed for life-long learning;
3. Science and technology (including information technology at all levels) with a particular focus on the methods and processes of science and technology;
4. A complete de-examination of the system, in favour of learning for mastery;
5. A close link between school learning and the goings-on in the wider society and most especially in the world of work; and
6. Teaching/learning materials that go beyond mere textbooks to materials from the wider society.

3.1 Enabling Environment for Teaching and Learning

Education is basically about transmitting desirable skills and attitude to help individuals fit into the society. Therefore, Obemeata (1995)'s findings that

there was shortage of textbooks, audio-visual materials and science equipment in education institutions is disturbing.

The overcrowded classrooms in tertiary institutions make teacher-learners interactions practically impossible. In some institutions where laboratory facilities are available, they are quite obsolete and students are not exposed to practical skills. The reading culture now lacking in our education system is traceable to non-availability of current books, journals, etc. in the school libraries. The available school plant facilities are eye sores. To enhance quality education, these educational resources have to be of appropriate quality and quantity which will promote meaningful teaching and learning. Considerable efforts have been put in place in the production of non-text materials by organisations like National Education Technology Centre (NETC) and the Science Materials Development Centres in Awka, Akure, Enugu, Ijanikin, etc. The government should motivate and monitor these organisations so as to be more widely used and more impactful at the school level through increased patronage by all governments of the federation (Obanya 2002). It is not an overstatement that the "quality (and quantity) of infrastructural facilities available in an educational system influence the output of the system" (Fadipe 2000). The facilities which include the classrooms, offices, libraries, laboratories, conveniences and other buildings as well as the chairs/desks and tables are good determinants of quality education.

However, it is not enough to have these resources available at resources centres, or in schools. Authorised government agencies should monitor to see that the resources are equitably distributed and judiciously utilised. The schools too should be encouraged to get these resources and to monitor their utilisation.

3.2 Community Involvement in Education

The strengthening of school-community interaction so as to bring about the desired quality in education is a task that has to be accomplished. The link should not be linked to a particular level of education system. Ojedele (1998), Ejieh (1990), among other educationists have discovered in their various studies that the effectiveness of education system would be improved through greater cooperation with community leaders, with particular reference to the parents. Hoyle (1975) research, cited by Ojedele (1998), indicates that teachers see parental support as improving their effectiveness and satisfaction.

Olaniyi (2000) stated that school-community relationship is a two way process, a two way flow of ideas and activities, which provides the basis for mutual understanding and effective teamwork. In the words of Ejieh (1990), "increased parental and community involvement in school affairs is desirable in our quest for the qualitative development of education system, especially in these days of continued cut backs in the budgetary allocation for education.

4 Conclusions

Without quality, education becomes wastage and even a threat to the individual in particular and the society in general. For education to be of quality, it must be functional in all its ramifications i.e. it must be functional in content, context and in both internal and external operations. A qualitative education is a type that will transform economic, social, political, technological and cultural structures of the nation. In addition to the suggestion given to improve the quality of education, the following should also be taken into consideration by the education policy makers/implementers and administrators.

1. Quality improvement in educational system must not be a fad; it must be a long term of continuous effort;
2. While educational top-management commitment is of great importance, everybody in education industry must also be committed to quality;
3. Quality control should be done at crucial stages, set quality/standard criteria for each important stage.
4. Quality improvement plan is not enough; provisions must be made for its proper implementation.
5. Education is a priority which must be considered before all other priorities because it is the cornerstone for national development, therefore it should be qualitative.

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Role of ICT in Managing Higher Education for Sustainable Development

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Abstract. This study assessed the role of ICT in the management of higher education for sustainable development in Nigeria. Data were collected from 800 lecturers selected from 16 higher education institutions in the country. The findings were that accessibility of ICT facilities is still very low and that, although lecturers have a positive disposition towards the use of ICT facilities, they scarcely use them. The study also found that the respondents believe in the potential of ICTs to positively transform higher education. It highlighted the ranking of some factors hindering effective usage of ICT in the management of higher education for sustainable development. In light of these findings, it is recommended that ICT facilities are made available and accessible in higher education institutions and that relevant end-user training be provided to enhance usage of the facilities once they are available.

Keywords: ICT4D; ESD; Information Technology in Education Management

1 Introduction

Higher education around the world is facing unprecedented changes. As these changes continue to accelerate the various higher institutions are subjected to external and internal pressures from stakeholders and students. Major reforms in higher institutions have recognised the changing nature in higher education and the need for change at both the institutional and individual level to make them more mobile, synergetic, creative, future-oriented and sustainable. Higher education should be anticipatory to social, economic and cultural life as well as form desirable sustainable future. It is the kind of education desirable, not only for promoting sustainable development but for improving the capacity of people to address environment and development issues, hence it is critical for achieving environmental and ethical awareness, values and attitudes, skills and

behaviour consistent with sustainable development and for effective public participation in decision making.

The World Commission on Environment and Development (1987) defines sustainable development as "development which meets the needs of the present without compromising the ability of the future generations to meet their own needs". Cox and Cusick (2006) affirms that behind sustainable development is the idea of economic growth, social development and environmental quality and the ability to sustain a consistent balance of interaction among these three systems for present and future redress of any nation. Therefore current technology development should be re-oriented for future development.

ICT refers to technologies that enable the handling of information and facilitate different forms of communication between human actors and electronic systems. In this paper, it refers to technology facilities such as capturing technologies (keyboards and image scanners); storage technologies (magnetic tapes, floppy disks, hard disks) processing technologies (photocopy and fax machine); communication technologies (internet and cellular phone) and display technologies (computer screens, digital TV sets and printers).

The swiftness of ICT developments, their increasing spread and availability and the nature of their content are having major implications for sustainability. ICT plays a significant role in national development and awareness globally as well as in managing quality education. Udida, Udofia and Ozurumba (2008) affirmed that ICT has far-reaching implications in the realisation of the social function of education in terms of culture, skills transmission and academic productivity. Succinctly, they argued that ICT has transformed tertiary institutions in Nigeria has become the major breakthrough and challenges causing positive changes in the educational system. The National Policy on Education (Federal Republic of Nigeria, 2004) recognising the role ICT in the development of skills, abilities and competences for effective development offer that it should be integrated into education in Nigeria at all levels.

The success of ICT in higher institutions will depend largely, on attitude of lecturers and their willingness to embrace it in discharging their functions appropriately, especially in the age of globalisation. Hence it is important that to integrate ICT in the management of higher education to reflect on teaching/learning situation, research and administrative functions.

1.1 Context

In this era of globalisation, ICT offers support to social and economic development in the developing countries. Hanna, Guy and Arnold (1995) found out that ICT has been used in both developed and developing countries to provide infrastructure for the whole economy, facilitate market entry, reduce costs, improve customer services and increase productivity. Also Talero and

Gaudette (1996) agreed that ICT is a policy that promotes higher education and national extension programme. Similarly, Mansell and When (1998) note that ICT leads to improvement in the efficiency of enterprises and allocation of resources, thereby leading to national development. Daffe and Dansokho (2002) conclude that ICT has multifarious roles in production of goods and services as well as in the dissemination of new information.

The crucial role of ICT in managing higher education and stimulating sustainable development is twofold. While it allows countries to leapfrog stages of economic growth by being able to modernise their production system and value system, it also bring about retardation to those economies that are unable to adapt to the new technological system. Zwick (2003) examining the role of ICT on productivity in German establishments state that there are high and positive impacts on production, on the other hand, Fernald and Rammath (20040 in their study of the impact of ICT on total factor productivity growth in US, agreed that the impact is relatively broad based occurring in private IT industries, technical higher institutions and government sector. Relating all these reviews to higher education, ICT provides a platform for new initiatives. Bendix (2002) sited the South African case, where their tertiary institutions focused on these new initiatives through transitions and transformation of higher education curricula, structure and management.

The role of ICT in higher education in Nigeria cannot be over emphasised. Apart from its use in the classroom for teaching/learning, it enhances curriculum content and teaching methods of teachers. Research development and other out –of classroom activities are not left out. In recent times, ICT is used in the management of staff from recruitment to retirement and students from screening, registration to graduation.

Okon and Jacob (2002) in their study found that the use of ICT by academics in selected universities is low. This further confirm their assertion that in spite of the tremendous use if ICT facilities in teaching-learning situation, the state of ICT facilities in Nigeria's higher institutions is not too challenging and exploiting ICT potentials for educational use is on the worrying side. Akpan (2008) corroborating this assertion confirm that lecturers recognise the importance of ICT in teaching and learning but their competence and usage of the available ICT facilities is below expectations. Furthermore, Huang and Liam (2005) found among other factors that teacher's attitude towards ICT affect the successful use of ICT in institutions. This attitude could be in different dimensions namely: Affective Domain, Behaviour Intentions, Perceived Usefulness and Perceived Competence level, and Knowledge of ICT.

ICT is widely used in developed countries in the management of education which greatly sustain national development. For instance, United Kingdom has a well planned ICT curriculum for Key stages are clearly stated objectives culminating in four cardinals frame work as follows:

1. Finding things out ,
2. Developing ideas and making things happened ,
3. Exchanging, modifying and evaluating work as it is,
4. Reviewing, modifying and evaluating work as it progresses.

Almost all educational institutions in developed nations are thickly equipped with gadgets and facilities for ICT mediated teaching and learning. It is evident that lecturer attitudes towards ICT usage are predictor for future classroom use and development (Myers and Halpin, 2002). Sequel to this, Regeringen in Olisaemeka and Onwusoanya (2009) noted that there are strong expectations and political pressures on the educational system to increase the use of Information and Communication Technologies (ICTs) to enhance performance and facilities flexibility in education in Sweden. The same Swedish government in 1998 gave a report to the parliament on its plan for use of ICT in schools. The report shows that Sweden is just one of the many nations who have imbibed ICT use in schools.

Around 1995, most universities in the USA begun to connect the program used in education with the internet and high expectations about the benefits of the same integration was applauded (Newberg, Rouse and Kruper, 1994). In a Singapore survey with a sample of 139 teachers, it was found that there exist significant relationships amongst years of computer use, level of confidence and attitude to ICT facilities generally (Teo, 2006).

Consequently, ICTs are used for teaching and integrating learning across the curriculum, meaning that availability of ICT devices and a conducive climate will enable students and their lecturers to access and evolve effective learning and effective administration.

Aniebonam (2007) findings on current ICT status in Nigerian higher institutions revealed that there is a big gap in ICT skills between the average Nigerian students and academic staff compared to other institutions around the globe. According to him, if this gap is not addressed with immediate intervention of ICT adoption processes, will continue to grow far beyond the present situation. Aniebonam further used statistical data to show the current status (Table 1). The implementation of education policy reforms most times is subject to the social and political terrain in the country. There are barriers that have been experienced in integrating ICT initiatives in the management of education for sustainable development. Munyua (2000) highlighted the policy and funding issues as the major factor alerting set back in some developing countries. Johnson (2006) added that high telecommunication costs, infrastructure, inadequate human resources and sustainability of new projects as part of the challenges facing the integration of ICT in higher education in Nigeria.

Table 1: ICT Statistics in Nigerian Higher Institutions

Key Performance Indicators	Current Status	1st Year	2nd Year
Student Computer Literacy	7.5%	500/0	85%
Staff computer Literacy	110/0	750/0	1000/0
Students Computer Ratio	50:1	10:1	3:1
Staff Computer access	20:1	2:1	1:1
Software application to learning	50/0	25%	500/0
Bandwidth size (100 meg in USA)	0.25M:256kbps	2Mbp	15Mbp
Campus LANIWIFI (% of schools)	0%	50%	1000/0
Research using Technology	2%	25%)	50%
Administration using Technology	10% (with bank partners)	100%	100%
Learning with Technology content	1%	50%	75%
Web Presence (Web metric %)	750/0	100%	1000/0
e-Mail, domain ownership	15%	1000/0	100%
Power Supply daily percentage	100% (Poor)	500/0	1000/0
Overall Academic Productivity	5%	500/0	850/0

Source: Aniebonam (2007)

Access to ICT is an essential factor in the development of higher education for sustainable development. Knowledge of ICT will go a long way to enhance both lecturers and students ability in their academic work, improve their acquisition of basic employable skills, solve some basic academic and societal problems through research and contribute positively towards sustainable development in the society.

However, Observation has shown that many lecturers and students in higher institutions in Nigeria do not seem to appreciate the important role of ICT in the management of education for sustainable development. The problem is that some university lecturers are not computer literate and ICT facilities that would aid its knowledge and application are not available or are inadequate (Agabi and Uche, 2006). The resultant effect of the problem of low access to and provision of basic ICT tools in higher institutions is a setback not only in the management of education but also in national development. It therefore becomes imperative for a research to be conducted to navigate the role of ICT in higher education management as perceived by lecturers towards a sustainable country.

1.2 Purpose of the Study

The purpose of this study was to examine the extent to which lecturers have access to ICT facilities, investigate their attitude towards ICT, assess the role of ICT in the management of higher education for sustainable development and examine the factors affecting the use of ICT in managing of higher education.

1.3 Research Questions

1. To what extent do lecturers have access to ICT facilities?
2. What are the perceived attitudes of lecturers towards ICT usage?
3. How do lecturers perceive the role of ICT in the management of higher education for sustainable development?
4. How do lecturers rank the factors hindering effective usage of ICT in the management of Higher education for sustainable development?

2 Methodology

The ex-post facto research design was adopted. The study was conducted in higher institutions in the South-West, South-East and South-South geo-political zones of Nigeria. The institutions included universities, polytechnics and colleges of education. The population of institutions was 54. Using stratified random sampling techniques, 16 institutions were selected, representing 30% of the population. A total of 800 lecturers were drawn from the institutions. The instruments used for data collection was the Lecturers' perception Questionnaire (LPT) adapted from the study conducted by Akpan (2008) and interview sessions. The questionnaire consisted of five sections. Section A sought information on respondents' demographic characteristics. Section B sought information on accessibility of ICT facilities to lecturers. Items in this section were responded to using the options of Highly Accessible (HA), Accessible (A) and Not Accessible (NA). Section C items review lecturers' perceived attitude to ICT usage and it responses were rated on a 4-point Likert type scale as Strongly Agreed (SA), Agreed (A), Strongly Disagree (SD) and Disagree (D). This was further grouped into two as Agreed and Disagree for analysis purposes. Section D sought information on the role of ICT in managing higher education and barriers to effective usage of ICT in managing higher education respectively. The pilot study conducted yielded a split-half reliability co-efficient of 0.78 which was high enough for the instrument to be considered reliable. The administration of instrument was handled by the researchers and research assistants. Data were analysed using frequency percentages.

3 Findings

3.1 Research Question One

This question delved into the extent to which lecturers have access to ICT facilities. The findings are summarised in Table 2.

Table 2: Accessibility of ICT Facilities

ICT Location Areas	Highly Accessible	Accessible	Not Accessible
Personal Office	96 (12%)	150 (18.75%)	554 (67.25%)
Departmental Office	116 (14.5%)	205 (25.62%)	479 (59.88%)
Departmental Library	68(8.5%)	52 (6.5%)	680 (85.0%)
Institution Library	631 (78.87%)	101 (12.63%)	68 (8.5%)
Institutions ICT Centres	775 (96.88%)	10 (1.25%)	15 (1.87%)
Cyber Café	788 (98.5%)	8 (1.0%)	4 (0.5%)
Classrooms	4 (0.5%)	5 (0.63%)	791 (98.88%)
Staff Quarters	5 (0.63%)	13 (1.63%)	782 (97.75%)

Table 2 reveals that 98.5% of the respondents indicated that ICT facilities are highly accessible from the cyber café. This is followed by the Institution ICT Centres with 96.88% while the staff quarters and classrooms with 0.63% and 0.5% respectively are areas where ICT facilities are not accessible. Also worth noting are the departmental and personal office with low percentages for accessibility. The result showed that ICT facilities are not accessible in all areas or location within the institutions. The interview sessions revealed that at these locations where ICT facilities are accessible, they are not adequately provided.

3.2 Research Question Two

Research Question Two focused on the respondents attitudes towards utilisation of ICTs. The result (Table 3) shows that majority of the respondents (73.38%) from the affective domain disagreed that they feel uncomfortable using ICT facilities. Also 67.87% of the respondents agreed that they feel worried using ICT facilities. From the Behaviour Intention aspects, 73.88% of the respondents agreed that they do not want to do any job that involves ICT usage. On whether they avoid the usage of ICT facilities in their institutions or not, they shared almost the same opinion, 50.25% of the respondent disagrees that they do avoid using ICT facilities while 58.87% agreed that they only use ICT facilities when is unavoidable. The perceived usefulness aspect revealed that majority of the respondents agreed to the usefulness of ICT facilities in their different job roles. However, the perceived confidence aspect shows that a high percentage 73% of the respondents agreed that ICT skills can be learnt through constant practice. Also, 65.12% agreed that they cannot easily manipulate ICT facilities and would always prefer to have standby experience person when using them. Only 37.5% agreed that they are always in total control when using any of the ICT facilities.

Table 3: Lecturers' Attitudes towards usage of ICTs

Items	Agreed	Disagree
Affective Domain		
A1 I am reluctant to use the ICTs in my institution	457 (57.13%)	343 (42.88%)
A2 I feel worried about using ICT facilities	543 (67.87%)	257 (32.12%)
A3 I do not feel comfortable using any ICT facility.	213 (26.62%)	587 (73.38%)
A4 ICT usage scared me	400 (50%)	400 (50%)
Behaviour Intention		
B1 I do avoid using ICT facilities in my institution.	398 (49.75)	402 (50.25%)
B2 I only use any ICT facility when it is unavoidable	471 (58.87%)	329 (41.13%)
B3 I get people to handle work involving use of ICT	591 (73.88)	209 (26.12%)
Perceived Usefulness		
P1 ICT facilities help me to work more productively.	550 (68.75%)	250 (31.25%)
P2 ICTs yield quicker and better results for me	480 (60%)	320 (40%)
P3 Using ICT make work more interesting and creative	511 (63.88%)	289 (36.12%)
P4 ICT usage makes my presentation clear, neat & logical	507 (63.38%)	293 (36.75%)
P5 ICT usage does not reduce my workload	522 (65.25%)	278 (34.75%)
P6 ICT facilities gives me access to current information	513 (64.12%)	287 (35.88%)
Confidence		
C1 I learn to use ICT facilities by constant practice	584 (73%)	216 (27%)
C2 I cannot easily manipulate ICT facilities to do my work	521 (65.12%)	279 (34.88%)
C3 When using ICT, I prefer having an expert on standby	503 (62.88%)	297 (37.13%)
C4 I am capable of solving problems using ICT facilities	257 (32.12%)	543 (67.87%)
C5 I am always in total control when using any ICT facility	300 (37.5%)	500 (62.5%)

3.3 Research Question Three

This research question inquired into the way the respondents perceived the role of ICT in the management of higher education for sustainable development. The findings (Table 4) were that majority of the respondents have high perception on almost all the item score relating to the role of ICT in the management of higher education. The only exceptions revealed in this study as the positive role of ICT is in the area of improving teaching/learning and assessment of students' performance where there is moderate perception. Under research role, the findings show that in almost all the items, respondents were of high perception except in the area of transmitting knowledge through research where they recorded moderate perception. As far as administrative activities are concern, respondents have perception of the role of ICT in this area with 90.8% and 54% respectively.

Table 4: Perception of the role of ICT in the management of Higher Education

Items	High	Moderate	Low
Teaching			
Enriching curriculum contents	650 (76%)	118 (14%)	32 (8%)
Development of course materials	715 (89%)	74 (9%)	11 (1%)
Delivering lectures/other presentations	276 (34%)	192 (24%)	332 (41%)
Improving teaching-learning situation	220 (27%)	460 (57%)	120 (15%)
Assessment of student performance	115 (14%)	484 (60%)	201 (25%)
Research			
Improving quality of research	662 (82%)	77 (9%)	61 (7%)
Transmitting knowledge through research findings	340 (42%)	362 (45%)	98 (12%)
Source of current information/literature studies	592 (74%)	128 (16%)	80 (10%)
Data collection, collation and analysis	490 (61%)	165 (20%)	145 (18%)
Global communication	800 (100%)	0 (0%)	0 (0%)
Administration			
Admissions, screening, registration and payment	727 (90%)	26 (3%)	47 (5%)
Connecting within and to the larger society.	432 (54%)	350 (43%)	18 (2%)

3.4 Research Question Four

This question stated thus; how do lecturers rank the factors hindering effective usage of ICT in the management of higher education for sustainable development? The findings are summarised in Table 5.

Table 5: Ranking of Hindrances to Usage of ICT in Managing Higher Education.

Items	Frequency	Percentage	Rank
Inadequate provision of ICT facilities	784	(98%)	1
Low access to ICT facilities	540	(67.5%)	6
Insufficient time or high work load	660	(82.5%)	3
Inadequate or lack of competence in ICT skills	690	(86.25%)	2
Low motivation	570	(71.25%)	5
ICT complexity	409	(51.12%)	8
Constant power failure	620	(77.5%)	4
Policy consideration	345	(43.13%)	10
Inadequate human resource	390	(48.75%)	9
Inadequate funds	460	(57.5%)	7

The data in Table 5 revealed that lecturers rank inadequate provision of ICT facilities as the most inhibiting factor against ICT usage in the management of higher education with 98%. Inadequate or lack of competence in ICT skills ranked 2nd with 86.25% while insufficient time or high work load ranked 3rd with 82.5%. The least factors are inadequate human resources (48.75%) and

policy consideration (43.13%). Generally, eight factors that ranked 1st to 8th position were considered to be hindering ICT usage in the management of higher education. This is because these eight factors had above 50% score each.

4 Discussion

The findings of this study revealed that accessibility of ICT facilities are high in some areas like the cyber café, institution ICT centres and institution library than in other areas like staff quarter, classrooms, personal offices and departmental offices. This implies that in terms of accessibility to ICT facilities it is still low because they are not easily accessible in areas where lecturers carry out their day-to-day activities which require ICT usage like classrooms and personal offices. Agabi and Uche (2006) affirms that in today's information technology driven society, relevant timely and adequate information can only be achieved using ICT medium and information processes that are available and accessible. In their study, they found that accessibility of ICT medium has been a major problem in most of the higher institutions in Nigeria and it has adversely affected the quality of higher education. Also, this has great implication on ICT adoption in higher institutions because they are not easily accessible to both students and lecturers. Kuzib (2002) carried out a study on ICT and networking options in Sub-Sahara Africa and found that adoption of ICT is a factor of availability and accessibility of ICT facilities. It also has great implication on people's orientation. In Nigeria, the application of ICT to all areas of operations in higher institutions has been inhibited by availability and accessibility.

The sub scale of affective domain, behaviour intentions, perceived usefulness and competence were used to measure lecturer's perceived attitude towards ICT usage. The study revealed that from the affective domain, which reveals more of lecturer's reaction to ICT usage, lecturers do not comfortably make use of ICT facilities. According to Udida et al (2006), this may be attributed to the factors reviewed earlier – availability and accessibility. Also it may be attributed to lack of competence in ICT skills, awareness and poor orientation. Behaviour intention measures show that ICT facilities are used only when it is unavoidable. This implies that given other alternatives, of which there seem t o be none, they will opt out. Despite this attitude, the perceived usefulness measure reveals a positive disposition of lecturers towards the usefulness of ICT in different areas. The perceived competence measures lay credence to the findings of Omofaye (2006) that lack of inadequate competence in ICT skills has been a major factor hindering ICT usage by lecturers. Rosswell (1999) and Ballantyne, Labelle and Rugard (2000) on the other hand, attributed this to

complex nature of change which requires a process of attitude transformation and which is mostly affected by age and experience. In other words, this perceived competence measure is greatly affected by lecturer's age, experience and ability to learn new ways of doing things. In a nutshell, lecturers are of the opinion that ICT facilities are useful to them at work but their behaviour showed they might not use them where possible, or would rather get people to handle their work relating to ICT for them. Generally, they have positive dispositions towards its usage. From this vantage point, the problem deduced is that of skills and competence in ICT usage.

The study also reveals that lecturer's perception of the role of ICT in the management of higher education is high. This finding shows the extent to which lecturers appreciate the role of ICT and how ICT has permeated the teaching/learning process, research and administration in higher institutions. Contrarily, Akpan (2008) found that lecturers' perception of the role of ICT in university education management is significantly low. He attributed this to lecturer's low ICT competence. This study further revealed that low or inability to make use of ICT facilities does not necessarily mean that usefulness of ICT cannot be discern and appreciated. This comes to the fact of lessons learnt and not necessarily experience as a motivating factor towards adoption or application. Critically, evaluating the findings of this study, it revealed a low perception in the area of transmitting knowledge through research findings. This finding can be explained on the ground that most of the research outcomes are not put into practice or use, and contributions to knowledge are merely blueprints that are never implemented. It is worthy to note that this study found that lecturers irrespective of age or experience agreed that ICT facilities are very useful to them in their work life. This also corresponds to the finding of Teo (2006) that ICT have reduced academic staff workload and has made teaching-learning process interesting.

The study further showed that inadequate provision of ICT facilities; inadequate or lack of competence in ICT skills; insufficient time or high workload; power failure; low motivation; low access to ICT facilities; inadequate funds and ICT complexity were amongst the numerous factors inhibiting ICT usage in the management of higher education for sustainable development. This does not mean that other factors ranked low cannot hinder effective usage of ICT in enhancing and promoting higher education. Ajinma (2006) indicated that only 22% of the higher institutions in Nigeria have access to less than 5% access to ICT facilities such as electronic mail facilities, computers for networking, internet services and e-library. This has resulted in low application of these ICT facilities by lecturers and students in higher institutions in Nigeria.

5 Conclusion

From our findings, it can be concluded that there is need to improve on the accessibility and usage of ICT facilities in the management of higher education. This will ensure a wider spectrum of interconnectivity among the institutions for better job enrichment and work processes. ICT as a growth factor has implications in all areas of development and as such should be embraced as a formation platform in the higher institutions and for modernity within the society.

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Influence of Involvement in Sports on Students' Involvement in Academic Activities at Ndejje University

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Abstract. This study was carried out to establish whether students' involvement in sports activities affected their involvement in academic activities. Data were collected using a self-administered questionnaire and analysed using percentages and means. Spearman's correlation coefficient was used to test the hypotheses that guided the study. The findings showed that there is no significant relationship between students' involvement in outdoor sports activities and their involvement in academic activities. However, there was a significant negative relationship between students' involvement in indoor sports activities and their involvement in academic activities.

Keywords: Extra-curricular activities; Sports management; Ndejje University

1 Introduction

Several authors point out that extra-curricular or co-curricular activities such as sports, games, theatre, debates, poetry and Music are extremely important. For example, Mulera (2004, March 29) observes that extra-curricular activities, the "very things which society consider a waste of valuable time and money are the foundation which buttresses academic learning. Namutebi (2009, July 31) asserts that "through sports, a child will learn teamwork; through debates, he/ she will learn the art of public speaking". According to Sendegeya (2005, January 31):

> Music programmes in schools play several significant roles…. A student of Music constantly adjusts decisions on tempo, tone, style, rhythm, phrasing and feeling training the brain to become incredibly good at organising and conducting several activities at once…. Music education is a primary means

> by which an education institution can transmit to students the cultural heritage of society….

Of all extra-curricular activities, this paper is interested in "sports". The term "sport" is rooted in the old French word "*desport*" meaning leisure. Kagere (2009) defined sports as organised, competitive and skilful physical activity that is governed by a set of rules or customs. In this study, sports meant both indoor and outdoor sports. Indoor sport is a type of sport where games are played indoors, normally within a building. Examples of these games are Chess, Draughts (Checkers), Scrabble, Ludo, Snakes and Ladders, Table Tennis, Pool and *Mweso* (local chess). These games normally involve a few players, mostly two but not more than four. Outdoor sports, on the other hand, are those games played outside buildings normally in fields or across villages. Outdoor sports normally attract crowds of people and usually involve many players. Such games include athletics (e.g. running, jumping and throwing), ball games (e.g. football, netball, volleyball and basketball), swimming, racing and others.

Ndejje University, the first private university in Uganda, was started in 1992, under a different name as Ndejje Christian University. It was started in the premises of the former Primary Teachers' College named Lady Irene College. In 1995, the University was acquired by the Anglican Diocese (Church of Uganda) of Luweero and was renamed Ndejje University. By 2002, the University ownership had expanded to include all the six dioceses of the Anglican Church in the Central Region also known as Buganda Region. By that time, Ndejje University was operating with a certificate, and had to improve its facilities to fulfil the demands of the National Council of Higher Education. The University was chartered in 2009, and offers both undergraduate and post graduates programmes. By the time the Charter was given, the University had expanded and is currently located on three campuses, one at Mengo Hill in Kampala and two separate campuses both at Ndejje in Luweero District.

According to Senyimba (2009), sports activities at the University started in 1993, when a few students were encouraged to practice football and athletics using the fields of neighbouring institutions like Ndejje Secondary School and Nalinya Lwantale Primary School. Senyimba adds that sports activities intensified when the University teams started to participate in local and national competitions as student enrolment increased. The University's Annual Report of 1999 (Ndejje University, 1999), indicated that both indoor and outdoor sports were included on the university extra curriculum because sports were believed to contribute to the students wellbeing through character formation, healthy body, mental alertness, and discipline among others. The above attributes were believed to enhance academic performance of students at Ndejje University. Currently, that is 2012, Ndejje University features among the best sports performers in the East and Central African Region. Given this high level

of performance in sports, the University Management has invested heavily in sports by putting in place various sports facilities like an athletics track, football fields, basketball, volley courts and a swimming pool.

According to university officials, some students most especially those who come for upgrading, join with qualifications in sports science at certificate and diploma level which is an added advantage for university admission requirements. In addition, the University offers scholarships to students who excel in sports, for example, those who participate in inter-university games get a reduction on fees by 15%, 10% and 5% for every gold, silver and bronze medal won respectively. This means that if a student won four gold and four silver medals would have got 100% fees reduction. Therefore, students are involved in several competitions where talents in sports disciplines are displayed as they compete in inter-hall, inter-campus and inter-university competitions organised by the National University Sports Federation in Uganda (NUSFU). This has yielded positive results such as winning university trophies and sports scholarships to various universities mostly in the United States of America. Above all, Ndejje University has produced sports men and women who represent Uganda at international sports events such as Olympics and Common wealth games.

2 Statement of the Problem

Sports activities were introduced at Ndejje University to contribute towards the students' wellbeing through character formation, healthy body, mental alertness, and discipline among others which attributes were believed to enhance academic performance of students. The main question for this study was whether involvement in sports had any effect on students' involvement in academic activities. The purpose of this study therefore was to find out whether students' involvement in sports had an effect on their involvement in academic activities. Specific objectives of the study were:

1. To establish whether involvement in outdoor sports affected students' involvement in academic activities.
2. To establish whether involvement in indoor sports affected students' involvement in academic activities.

3 Related Literature Review

3.1 Outdoor Sports and Students' Involvement Academic Activities.

Kagere (2009) observed that participating in outdoor sports helps students to improve on their attendance and grades. Outdoor sports instil values that are

essential in one's life like discipline, responsibility, sacrifice and acceptability. Kagere adds that apart from self confidence and physical fitness, sports helps students to acquire teamwork spirit as well as promoting bonding and encouragement besides considering the monetary rewards that come as a result of joining a club as a professional player. Both Kagere (2009) and Senyimba (2009) agree that outdoor sports expose students to competitions where they win sports scholarships in and outside Uganda. For example, the public universities' policy in Uganda awards four points to excelling sports men and women to pursue courses that they qualify for. This has created competition among the students in secondary schools.

Senyimba (2009) also emphasises that outdoor sports is a tool of characters formation because it inculcates a sense of discipline among students since no one can succeed in sports unless he/ she is disciplined, say in time management, proper dressing, feeding, among others. Outdoor sports involve working in teams and obeying rules. Sports men and women learn how to handle success and defeat because in sports, there are no enemies. All these are prerequisites for effective learning and hence good academic performance. Aligawesa (2003) asserts that outdoor sports have become a significant component of human culture in the modern world. Consequently nations worldwide have embraced its development and what is becoming increasingly known today is that, outdoor sports are not just important at the individual level but also at national and international levels.

Sports activities offer knowledge (such as how to play a game effectively), self-expression (when relating with team members of sports leaders) and fulfilment, personal achievements, skill acquisition and demonstration of abilities, social interaction, employment, good health and well being. With the increasing cost of health care around the world, the contribution of sports to good health could bring about significant savings to individuals and the nation at large as well as increasing concentration for academic work. Sports facilitate positive social interaction, integration and friendship among people of diverse social economic and ethnic groups hence students improving their academic performance.

Past studies relating involvement in outdoor games and involvement academic activities can be found. For example, Nick (2007), in his study on the relationship between sports participation and academic performance of students in Florida (USA), examined the average daily attendance of varsity athletes and non-athletes and final cumulative grade point average. The results of the overall analyses showed a positive and significant relationship between athletic participation and academic performance. On average, athletes were absent fewer days from school per year than non-athletes and athletes earned a significantly higher cumulative grade point average than their non-athlete peers. Although cause and effect cannot be inferred from this study, the findings do

indicate the potentially beneficial value of sports programmes in education institutions. Dwyer (2001) conducted an extensive study on fitness test for measurement of physical activity/ fitness to depict academic performance of four students in an Austrian High School. The results revealed enhanced brain function, energy levels; body builds, self-esteem, and above all, improved academic performance.

3.2 Indoor Sports and Students' Involvement in Academic Activities

Indoor sports activities in schools may not be taken as serious as outdoor activities because they are looked at as games of low organisation hence having insignificant influence on students' academic performance. However, a positive relationship of indoor sports and academic performance has been explored through several studies conducted in the USA by the California Department of Education; Dwyer, Sallis, Blizzard, Lazarus and Dean (2001); Dwyer et al. (1983); Shephard (1997); and Tremblay et al. (2000). These studies support one another in suggesting that when a substantial amount of school time is dedicated to indoor sports, academic performance improves and may even exceed that of a student who is not involved in indoor sports (Shephard, 1997). Mitchell (1999) asserted that children's involvement in indoor sports is positively related to children's overall school achievement, especially mathematics and reading achievement. On the other hand, Kagere (2009) observed the need to balance sports activities and academic work. This implies a programme that balances outdoor sports, indoor sports and academic activities.

3.3 Hypotheses

1. Outdoor sports positively affect students' involvement in academic activities.
2. Indoor sports positively affect students' involvement in academic activities.

4 Methodology

Using a quantitative approach, and corelational design, data were collected using a self-administered questionnaire with constructs on the independent variables, namely involvement in outdoor sports (four items) and indoor sports (eight items). The questionnaire had constructs on the dependent variable, namely involvement in academic activities (five items). Using the questionnaire, data were collected from a sample of 90 randomly selected students equally distributed to the three campuses, namely Ndejje Main and

Lady Irene, both in Luweero and Kampala Campus in Kampala. Data analysis was based on percents and means at descriptive level, while Spearman's correlation coefficient was used to test hypotheses.

5 Findings

5.1 Background of Respondents

Other details about the 90 respondents are given in Table 1, which illustrates that the typical respondent was a male (51%), aged below 25 years of age (73%), studying for a Bachelors degree (55%), being a Ugandan (60%), with no qualification in sports (78%) and preferring outdoor sports (91%).

Table 1: Descriptive Statistics on Respondents' Background

Characteristic	Category	Number (%)
Sex	Female	44 (48)
	Male	46 (51)
Age	Below 25 years	66 (73)
	Over 25 years	24 (27)
Level of Study	Undergraduate Diploma	32 (36)
	Bachelors Degree	50 (55)
	Postgraduate	8 (09)
National of Uganda?	Yes	64 (60)
	No	36 (40)
Holder of Qualification is Sports?	Yes	20 (22)
	No	70 (78)
Preferred Category of Sports	Outdoor	82 (91)
	Indoor	8 (09)

5.2 Involvement in Sports Activities

5.2.1 Involvement in Outdoor Sports Activities

In this study, outdoor sports (the type of sport where games are played outside a building) were conceptualised as athletics (e.g. running, jumping and throwing), ball games (e.g. football, netball, volleyball and basketball), swimming, and racing. Four question items were used to obtain data, all of which were scaled as follows: 1 = strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = strongly agree. Table 2 gives pertinent percents and means:

Table 2: Students' Self-Rating of Involvement in Outdoor Sports

Indicator		Strongly disagree	Agree	Undecided	Agree	Strongly agree	Mean	Remark
I am involved in:	Athletics	4.4 %	17.8%	37.8%	26.7%	13.3%	3.27	Fair
	Ball games	0%	4.4%	4.4%	26.7%	64.5%	4.51	Very Good
	Swimming	22.2%	22.2%	26.7%	13.3%	15.6%	2.78	Fair
	Racing	75.6%	4.4%	15.6%	0%	4.4%	1.53	Poor

The means in Table 2 suggest that students were most involved in ball games (e.g. football, netball, volleyball and basketball) with a mean = 4.51, while their involvements in athletics (e.g. running, jumping and throwing) and swimming with means = 3.27 and 2.78 respectively. Involvement in racing (mean = 1.53) was poor. The average index for students' involvement in outdoor sports had a mean = 3.0, which suggested that overall students' involvement in outdoor sports was only fair.

5.2.2 Involvement in Indoor Sports Activities

In this study, indoor sports, the type of sport where games are played in a building were conceptualised as chess, scrabble, draughts (checkers), *mweso*, ludo, snakes and ladders, and table tennis. Eight question items were used to obtain data, all of which were scaled as follows: 1 = strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = strongly agree. Table 3 gives pertinent percents and means.

Table 3: Descriptive statistics on students' self-rating on their involvement in indoor sports

Indicator		Strongly disagree	Agree	Undecided	Agree	Strongly agree	Mean	Remark
I am involved in playing:	Scrabble	62.20%	24.40%	8.90%	4.40%	0%	1.6	Poor
	Draughts	64.40%	17.80%	8.90%	4.40%	4.40%	1.67	Poor
	Mweso	46.70%	31.10%	13.30%	8.90%	0%	1.84	Poor
	Ludo	26.70%	20.00%	4.40%	26.70%	22.20%	2.98	Fair
	Snakes & Ladders	13.30%	15.60%	26.70%	35.60%	8.90%	3.11	Fair
	Table tennis	26.70%	6.70%	17.80%	26.70%	22.10%	3.11	Fair

Table 3 suggests that indoor sports are not popular among respondents. For example, none of the eight games scored "good" as far as involvement was concerned. The last three in Table 3 scored "best" which was only "fair", while

the rest scored "poor". The average index for students' involvement in indoor sports had a mean = 2.4, which suggested that overall students' involvement in indoor sports was poor.

5.3 Students' Involvement in Academic Activities

In this study, the dependent variable was students' academic performance which was conceptualised as students' goodness in terms of class attendance, completion of class assignments in time, sitting for end of semester examinations as scheduled, completion of programmes on time, and quality of grades obtained at the end of their programmes. Five question items were used to obtain data all of which were scaled as follows: 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree. Disagree; 3 = Neutral; 4 = Agree; 5 = strongly agree. Table 4 gives pertinent percents and means:

Table 4: Students' Self-rating on Involvement in Academic Activities

Indicator		Strongly disagree	Agree	Undecided	Agree	Strongly agree	Mean	Remark
I am good at:	Class attendance	0%	4.4%	13.3%	26.6%	55.6%	4.33	Good
	Completion of class assignments	0%	17.8%	4.4%	22.2%	55.6%	4.15	Good
	Sitting of examinations	0%	4.4%	0%	22.2%	73.4%		
	Timely completion of programs	0%	4.4%	31.1%	33.3%	31.2%	3.91	Good
	Good CGPA	8.9%	0%	44.4%	26.7%	20.0%	3.49	Fair

Table 4 suggests that except for the last item where they rated themselves as only fair, respondents rated themselves "good" on all other items, especially "class attendance" with mean = 4.33. Indeed the average index for students' involvement in academic activities scored a mean = 4.1, which corresponded to "good" overall involvement in academic activities.

5.4 Test of the Hypotheses

5.4.1 Hypothesis One

To test the first hypothesis, namely that involvement in outdoor sports positively affected students' involvement in academic activities, the method of Spearman's Rank Correlation Coefficient was used. The average index for

students' involvement in outdoor sports (Table 2) was correlated with the average index for students' involvement in academic activities (Table 4), yielding $r = -0.052$, $p = 0.627$. That suggested that there was a negative ($r < 0$) but insignificant ($p > 0.05$) correlation between students' involvement in outdoor sports and their involvement in academic activities.

5.4.2 Hypothesis Two

To test the second hypothesis, namely that involvement in indoor sports positively affected students' involvement in academic activities, the method of Spearman's Rank Correlation Coefficient was used. The average index for students' involvement in indoor sports (Table 3) was correlated with the average index for students' involvement in academic activities (Table 4), yielding $r = -0.227$, $p = 0.031$. That suggested that there was a negative ($r < 0$) and significant ($p < 0.05$) correlation between students' involvement in indoor sports and their involvement in academic activities.

6 Discussion

6.1 Hypothesis One

The first hypothesis was that involvement in outdoor sports positively affected students' involvement in academic activities, and the method of Spearman's Rank Correlation Coefficient revealed that there was a negative but insignificant correlation between students' involvement in outdoor sports and their involvement in academic activities. This means that students' involvement in outdoor sports (most especially the ball games e.g. football, netball, volleyball and basketball and athletics e.g. running, jumping and throwing, and to a much reduced extent, swimming and racing) did not affect the student's involvement in academic affairs, operationalised in terms of class attendance, assignment completion, sitting for end of semester examinations as scheduled, completion of programmes on time, and quality of grades obtained at the end of their programmes.

These findings were in disagreement with Kagere (2009), who asserted that participating in outdoor sports helps students to improve on their attendance and grades. They were at variance with Senyimba (2009) who emphasised that outdoor sports is a tool of character formation because it inculcates a sense of discipline among students, which is a prerequisite to good academic performance. The findings put into question Wavamunno (2011)'s submission that students do not excel in only sports and games but also in academics since

involvement in sports creates a health mind which is a fertile ground for concentration in academic work.

The findings did not support findings such as those of Nick (2007) who, in his study on the relationship between sports participation and academic performance of students in Florida (USA) showed a significant positive relationship between athletic participation (involvement in outdoor sports) and academic performance. What could have led to the anomalous findings? Could it have been conceptual? May be the way the major variables in the study as per Tables 2 and 4 were inadequate? Or they were not the same as those used by earlier researchers such as Nick (2007)? This is food for thought for future related studies.

6.2 Hypothesis Two

The second hypothesis was that involvement in indoor sports positively affected students' involvement in academic activities, but Spearman's Rank Correlation Coefficient instead revealed a significantly negative correlation between students' involvement in indoor sports and their involvement in academic activities. This means that students' involvement in indoor (e.g. chess, scrabble, draughts or checkers, *mweso*, ludo snakes and ladders, and table tennis) did negatively affect the student's involvement in academic affairs, operationalised in terms of class attendance, assignment completion, sitting for end of semester examinations as scheduled, completion of programmes on time, and quality of grades obtained at the end of their programmes.

The finding perhaps was due to the fact that since these games are played indoors, they suit any weather conditions which compromise students' time for academic work. This observation is in line with Kagere (2009), who observed that there is need to balance sports activities and academic work which requires a programme that balances indoor sports and academic activities if negative effects of involvement in sports on students' academic performance are to be avoided. This finding put into question the position by Shepherd (1997) to the effect that when a substantial amount of school time is dedicated to indoor sports, academic performance improves and may even exceed that of a student who is not involved in indoor sports. The findings tends to dismiss Mitchell (1999) who asserted that children's involvement in indoor sports is positively related to children's overall school achievement, as well as mathematics and reading achievement.

7 Conclusions

From the discussion of the findings, there was no significant relationship between students' involvement in outdoor sports and their involvement in academic activities, implying that students already engaged should be

encouraged to continue with outdoor sports while those students yet to be engaged in outdoor sports should be encouraged to do so at once. However, the findings showed that there was a significant negative relationship between students' involvement in indoor sports and their involvement in academic activities, implying that students already engaged and those yet to do so, should be encouraged to balance their time for indoor games with time for academic activities which brought them to the University in the first place.

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Impact of Innovation on Organisational Management: the Case of University of Lagos

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Abstract. This study examined whether organisational change, including restructuring of top leadership, is related to the effectiveness of organisational management. Data were collected from a sample of 177 participants, including students (120); senior members of staff (made up of 24 lecturers, 21 administrative staff) and Heads of Departments (12). These were drawn from the nine faculties in the University of Lagos, Akoka. The results were that organisational changes could occur without affecting organisational effectiveness. The study also found that University of Lagos is dynamic, notwithstanding the facilities or persons that change may affect.

Keywords: Innovation management; Organisational development; Restructuring

1 Introduction

For effective management of any organisation, innovation is expected to bring about a high degree of autonomy that enables it achieve its goal (Gbolahan and Moruf 1997; Utomi 1998; Albert 2000). In this study, innovation is seen as a necessary ingredient of effectiveness in any democratic setting. Nadler in Moruf and Gbolahan (1997); Kolades (1998) and Ehie (1999) agree that innovation is of three types. The first is technological, the second is structural and the third is organisational. Decision-making and policy implementation are said to be influenced by certain models of innovation. These include: social interaction model (S-I) by Miles (1994) and Mubert (1996); Research Development and Diffusion Model (RD&D) by Benis and Lawler (1994); and Problem solving model (P-S) by Havelock and Skinner (1997).

In the case of university management, the three models of change are relevant. This is because even if its goal is clear (i.e. academic excellence (Madumere, 1999)), university management is complex and involves a high

degree of inquisitiveness in all aspects of goal achievement. While endorsing the view that innovation is in line with organisational effectiveness, it is important to note that unnecessary change could be disastrous to goal attainment (Porras & Hoffer 1986; and Schein 1988). When the innovation or change is in the negative, the desired effectiveness is in question (Hicks and Zmud 2004).

Organisational management refers to formal institutions and the manner in which they are governed and controlled to achieve their goals. Innovation is seen here as change or a change process and introduction of new things, like new infrastructural facilities in an organisation. Innovations or changes in institutions or in the formal settings are not easily taken and accepted by the core elements. The core elements here refer to the personnel or the workforce in an organisation.

In the University of Lagos which is taken as a test case for this study, it is noted that various types of innovations occur, varying from change of personnel as when one of its Vice Chancellors was removed, to change of things in concept and also in structure or re-arrangement of things. The innovation could also affect the attitudes, expectations, skills, perceptions and knowledge of persons involved. In the case of universities, the organisational effectiveness is seen in terms of academic excellence. Creativity leads to innovation, which leads to new development and which gives the potential for increased growth (cf. Figure 1).

The introduction of new machines and other inputs or facilities like computers bring about tremendous positive changes in facilitation of management. On the other hand, employment of new qualified and experienced people improves the organisation, leading to further innovations, developments and the needed academic excellence (provided that the students are interested and that they are properly exposed to the new changes). Thus, it may be argued that creativity, innovation and organisational effectiveness are therefore related (Sharp & Paisan 2000). Notwithstanding, incessant changes especially of the headship may be disastrous to goal attainment. Therefore, the impact of innovation on organisational management is worth studying to determine growth and further development. In the case of higher education institutions, it is also necessitated to determine the impact of change on higher institutions.

2 Conceptual Framework and Knowledge Gap

The theory of innovation and organisational effectiveness touches the growth and development of management (Hicks and Zmud 2004). Growth and development are separate and distinctive in some respects. However, every

organisation needs them for its sustainability (Zmud, 2001). Growth is to do with increase in the size of an organisation's management and in the volume of its turnover. On the other hand, development is an innovation to do with expansion in objectives and structural relationships. Without development, members of an organisation may not be motivated to give their creativity and professional best (Adefisoye and Auinla 2004). It creates the potential for new growth and, as growth reaches the limits imposed by the existing stage of development, pressures often occur for further developments. Innovations lead to higher stages of development and new growth potentials, which results into organisational effectiveness (see Figure 1).

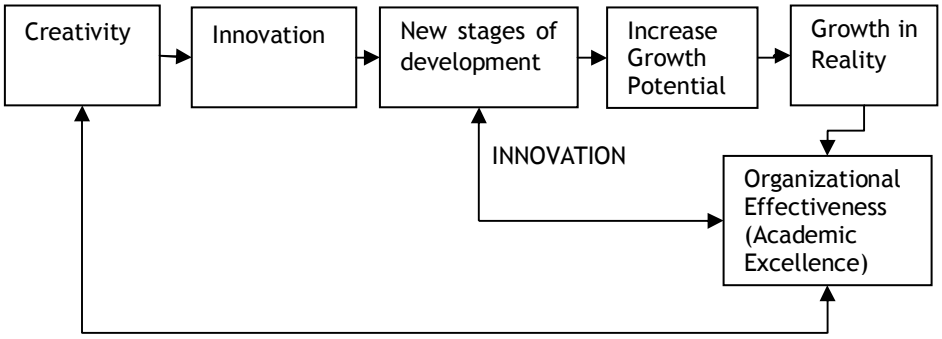

Figure 1: Growth and Development through Innovation

Figure 1 shows the way academic excellence results from creativity, innovation and processes of development and how these enhance the effectiveness of organisations. The objective of this study was to investigate the impact of innovation or change on organisational management, taking the case of University of Lagos, Akoka. The central problem to this study is: how does innovation impact organisational management? How will change bring about better management to maintain academic excellence for which the universities are aimed at? Lack of documented data on the effect of innovations on university organisational management poses the problem of repeating the same mistakes of the past management. The results of the study might assist in this regard. Presently the universities in Nigeria cannot be said to be paying their staff adequately. Organisational effectiveness is also tied with the level of salary of its workforce in a competitive market economy (Alos 2000). Hence the question of whether there is a remedy to poor staff remuneration. Moreover, Alos and Collier (2000) were of the opinion that; for an effective improvement of the quality of education in any learning institution, the teachers must be properly remunerated. Thus, the study undertook to respond to the following research questions: 1) is there significant relationship between innovation and organisational management and effectiveness? 2) Are staffs' attitudes

significantly related to organisational change in Vice Chancellorship? 3) Are staffs' attitudes significantly related to change in the infrastructural facilities available at an institution? 4) What relationship exists between students' attitudes and changes in Vice Chancellorship and the infrastructural facilities for teaching and learning? The respective null hypothesis was that organisational change is not significantly related to organisational management and effectiveness.

3 Method

The study was carried out following a case study design. Data were collected from students, lecturers and administrative staff drawn from the nine faculties of the University of Lagos, Akoka. The distribution of these respondents is shown in Table 1.

Table 1: Sample of Respondents

Faculty	Students	Academic staff	Heads of Department	Senior Administrative Staff
Education	16	4	2	3
Social Sciences	12	2	1	2
Arts	12	2	1	2
Law	12	2	1	3
Engineering	15	2	2	2
Physical Sciences	13	3	1	2
Business Admin.	14	2	1	3
Medicine	12	4	2	2
Architecture	14	3	1	2
Total	120	24	12	21

Questionnaires (reliability coefficient = 0.98) were used to elicit the data. Multiple regression analysis and Pearson's Product Moment Correlation were used to analyse the data.

4 Results

The findings were that majority (82%) of the respondents "disagreed" that organisational effectiveness of the institution is dependent on organisational innovations (Table 2). In the same way, the results indicate that 81% of the respondents disagreed that organisation changes are responsible for delay in

student's graduation, or delays in salary, introduction of new infrastructures like machines and welfare packages.

Table 2: Perceptions of the Role of Innovation in the University's Development

Factor	Categories	Frequency	Percentage
The university organisation effectiveness is based on innovations in personnel and infrastructures within the institution	Strongly disagree	102	58
	Disagree	43	24
	Undecided	8	5
	Agree	14	8
	Strongly agree	10	6
	Total	177	100
Organisational changes or innovations are responsible for delays in graduation of students, distortion of university calendar, salary of staff and other welfare packages	Strongly disagree	100	58
	Disagree	38	22
	Undecided	10	6
	Agree	12	7
	Strongly agree	11	6
	Total	171	100

The results of the hypothesis test are summarised in Table 3.

Table 3: Impact of Organisational Innovations on Management Effectiveness

	Sum of squares	Degrees of freedom	Mean squares	F-ratio	Remarks
Regression	10321.94	2	56160.97	7.69	.05
Residual	435734.69	647	670.38		

Multiple R = 0.152; R^2 = 0.023
Adjusted R^2 = 0.020; Standard Error = 25.891
Calculated value = 3.40

In Table 3, the hypothesis that organisational change is not significantly related to organisational management or its effectiveness is tested. The computed F-ratio is 7.69, which is greater than the critical value of 3.02 at P = .05 level of significance. Based on this the hypothesis is rejected. Organisational change can occur without affecting the institution's organisational effectiveness or management.

5 Conclusions

From the analysis presented, organisational management at the university of Lagos remains effective irrespective of whether a vice chancellor is changed or

not. A change of the principal personnel of the university does not stop the lecturers and other staff members or the students from doing their work. Work goes on and all activities and salaries are not delayed due to change of personnel or infrastructure.

The university council, the National university Commission (NUC), the Senate and the Head of state as visitor to the university are responsible jointly for University management, and of course, the vice chancellor also, who acts as the immediate headship. The Vice-chancellor is accountable to the government and to the general public on what happens to the institution. His removal or change does not stop the system from working. To show however, that change is welcome at the university, a certain percentage of the respondents (13.5) agree that changes bring about effectiveness on the system (see table 2). Organisational changes are relevant in university management for facilitation of administration. Changes are not ruled out so long as they help to improve the system as when new machines or equipment are brought in to replace obsolete ones.

In conclusion, it could be emphatically stated that organisational changes or changes of personnel per say, do not hinder progress or cause delay in management in the university setting. Work goes on irrespective of change in staff or in infrastructure. The university does not however, jettison change but it sees change as one of the means of facilitating its management when new structures or infrastructures are purchased especially for replacement of obsolete ones.

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Academic Accountability, Quality and Assessment of Higher Education in Nigeria

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Abstract. This study examined quality assurance and academic accountability in ten universities in Nigeria, using UNESCO's input-process-output framework for assessing quality assurance in education. Data were collected from staff and students of the universities as well as from opinion leaders drawn from the communities hosting the institutions. The findings were that: academic accountability in terms of quality of inputs and outputs was low; quality of the process was high; and that the universities' research and community service activities enhance development of the universities' host communities. Conversely, lack of political willingness to develop higher education, low students' learning readiness and non-utilisation of research findings were found to be affecting the institutions' academic accountability. Therefore, interventions targeted at improving the quality of inputs into higher education; exposing students to practical training; and encouraging utilisation of research findings and university-community alignment are recommended.

Keywords: Academic accountability; Quality assurance; Community service

1 Introduction

Academic accountability implies that those who are given responsibility are held answerable for the education outcomes of the students or are aware of the duty to give stewardship account in terms of productivity and the quality of the products there of. The concept of accountability in education stresses the need for practitioners in education and stakeholders such as parents, education authorities, and communities to know what goes on in the education sector of the economy, not only with regard to how judiciously the money allocated to the sector is spent, but how much learning is taking place and how efficient and

effective it is. Higher education plays three main roles towards the development of middle and high level manpower and national development i.e. teaching, research and community service. Societal changes and needs, in addition to global trends and high cost, have increased the expectations on the institutions of higher learning to be more responsive, functional and relevant in their programmes and services. Also, Berdahl and McConnell (1999) observe that the public is now more aware and conscious of the meaning and role of higher education. There is high demand for higher education and its services. Thus people are critical of what the institutions are doing and are becoming more vocal in expressing their desires of greater benefits. So universities and other higher educational institutions are expected to explain themselves, defend their character, and demonstrate that their services are worth the resources being expended on them. They must be accountable to the numerous stakeholders and agencies linked to them, for the range of their services and performance (teaching, learning, research and community service). Three types of academic accountability have been identified (Agabi, 2002; UNESCO, 2004).

1. Input or programme accountability
2. Process accountability
3. Outcome accountability

The quality of the input, the processes and the environment determines the quality of the output. Thus academic accountability provide answers to the questions on quality teaching staff, facilities, students input, the right processes for producing expected results, enabling environment and right type of teaching and learning instructional materials. Academic accountability is also concerned with the relevance of research activities in the institutions, the new knowledge produced for the development of communities, and the nation at large; and the benefits of the community service carried out by the lecturers and the students.

Therefore assessing the quality of higher education must be geared toward an integrated, customer-centred quality model. This is why UNESCO (2004) emphasised that quality must be linked to relevance, and quality must be seen as a multidimensional concept which depends to a large extent on the contextual setting of a given system. So the accountability is equally holistic and integrating. In the light of the multidimensional feature of quality, and by implication accountability, UNESCO (2004) developed an input-process-output framework which indicated the places or domains of all stake-holders in education in the pursuit of quality and accountability (learners, parents, teachers, communities, government, at the various levels, classroom, school, national policy etc).

In the light of the multidimensional feature of quality and the holistic approach to academic accountability, UNESCO (2004) developed a framework which helps to guide a step-by-step assessment of educational quality (Figure 1).

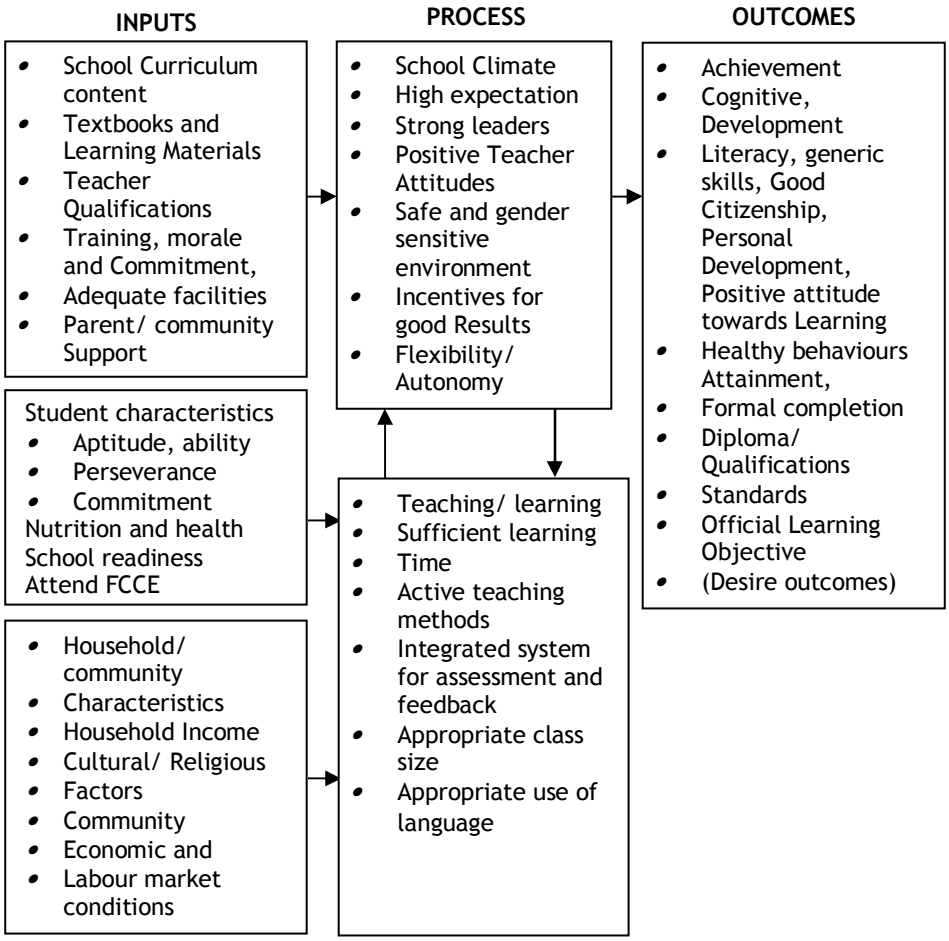

Figure 1: Input-Process-Output Framework for Assessing Educational Quality
Source: Adapted from Jaap (2004); Obanya (2010)

1.1 Question of Moral Character Development in a School Setting

In Figure 1, it can be observed that quality inputs (politics, policies, human resources, material resources, financial resources, environment) subjected to quality processing (transformational processing through effective leadership, teacher professional support process, learners psycho-social support process, effective teaching-learning process) lead to quality output. It is only quality processing of quality input that can yield quality outcomes and this can manifest in success in examinations, cognitive learning enhancement, high level of life-coping and life-long learning skills. These skills developed in the

quality student outputs enhance the capacity of the graduates to contribute to societal development, created through a self-sustaining and self-generating educational system for sustainable development of the society (UNESCO, 2004; Obanya, 2010; Okobukola, 2010).

1.2 Related Literature

The basic system theory of organisation recognises systems as characteristically composed of five parts (Agabi, 2002 Smith 1957). These are inputs, a transformation process, outputs, feedback and the systems' environment. The inputs are the human, materials and non-tangible resources (like the norms, rules and tradition) that are needed for the system's operational activities. These inputs pass through some technical processes (like the classroom instructions and control activities) and behavioural changes (transformation process). The feedback is the reactions (positive or otherwise) of the environment to the outputs or services from the system. Such feedback forms the basis for determining the subsequent input, transformation process and hence output from the system. The system environment is the social, political and economic forces around the system, which ultimately determines the focus, capabilities and inhibitions of the system.

As a system, the higher education organisation has these characteristics. The quality implication of each of these components needs to be examined closely as it particularly interferes with their accountability for the achievement of higher education goals.

1. **The input component**: the input components of higher education include the people (students and staff) and the resources (like the furniture and fittings, the instructional materials, texts and learning material needed for instructions). Others include the information resources as well as the non-material components like the norms, values and standards regulating the instructional activities. As a system component, input determines the nature of the transformation process and not just the quantity but also the quality of output i.e. the student graduates (Sallis 2002; Rao 2008, Onyene, Ikebude & Uche, (2009).
2. **The staff input**: The people working in the higher education both as academic and non-academic staff are also the input into higher education from the society. (Uche 2010) opines that accountability for quality in higher education requires high consideration on teacher qualification, training, morale and commitment as specified by UNESCO, (2002).
3. **The students input**: Students are the major input into the higher education with their characteristics as a carryover from the larger social system. They also come in with their learning behaviour, ability, perseverance,

commitment, nutrition and health issues which affect the teaching and learning process and academic accountability positively or otherwise.

4. **Resources input** involve both the fund and the facilities. The Structural infrastructures like space acquisition, maintenance and renewal are school resources that must be put together to ensure quality outcome (Uche, Okoli & Ahunanya, 2010). Other resource inputs are curriculum content, text books, learning materials, and adequate facilities.
5. **The transformation process:** The basic activities of teaching, learning, evaluation and the managerial elements of the higher educational process constitute the transformation process (Okorie & Uche 2008). According to the framework developed by UNESCO (2002) school, teaching/learning time, students' participation, methods, system for assessment and feedback, class size and appropriate language are the identified transformational process that requires quality touch in order to yield quality outcome. Transformational quality is achieved not through adhering to systems and procedures, but through the exercise of leadership. It is leadership that establishes a vision that translates into customer service and builds the structures and organisational culture that empowers staff to deliver a quality service that produce quality outcome (Sallis 2002; Creech 1994). The nature and efficacy of the transformation process in higher education is not dependent on one unit but on all the elements of the institutions' programmes (Babalola 2008; Amadike, 2007; Mbakwem & Okeke 2007).
6. **The output component**: The output constitutes the ultimate goal of the system as a functional entity. It reflects the relevance and impact of services rendered in higher education. It is the learning outcome or behaviour modifications that have been achieved through the teaching and learning process and other programmes organised in the institutions (Jaiyeoba & Atanda 2007; Mishra, 2008). This is identified through the evaluation process and reflected in development of skills, good citizenship, positive attitudes, healthy behaviours and attainment of high standards and placements (Agabi & Uche, 2000).

1.2.1 Research and Community Service

Academic accountability is also considered in terms of the quality of research activities and community service carried out by lecturers and students because research and knowledge production are part of their roles. Production of knowledge and dissemination of information through research contribute immensely to the development of the staff, students and the community as a whole (Uche 1999). Universities render community services to the community through the lecturers and students by assisting national development through their extra–mural and extension services, agricultural extension services as well

as rural health services in their various departments (Nnabuo & Uche 1999; Mishra 2008).

1.2.2 Academic Accountability and Quality Assessment in Higher Education

The process by which educational administrator, teachers and other stakeholders monitor and assess the quality of education in the higher education institutions is called academic accountability (Reiley, 1992; Crosby, 1979).The high cost of education has made the public and other stakeholders to begin to ask for the relationship between the cost of education (resources allocated to it, e.g. time and efforts put in by students and their teachers) and the end product of the education which is the human resource that result from the educational process. To remove this doubt, Babalola (2008) suggests that there is need for Nigerian higher education to be truly accountable by setting objectives, developing programmes to meet the set objectives, carrying out the designed programmes, evaluating and measuring the degree of success and failures and making a continuous improvement. Since higher education certifies their graduates fit in learning and character, accountability for their programmes and outcomes should mean accounting for all the resources put in, the process/actions taken and the output/results to the society that owns it (Uche, 2010; Joshua (2005) Smith (1971) Gronhind (1976, Joshua (2005)

1.2.3 Constraints to Academic Accountability and Quality

However important academic accountability is, it is difficult to access quality in higher education because it is multidimensional and embraces all functions and activities within and outside the system. According to Amadike (2007); Dike (2006); Uche, (2010); Uche, Okoli & Ahunanya, (2010) lack of adequate funding, corruption, inadequate facility, overpopulation, lecturers' absenteeism, lack of regular supervision and unfriendly learning environment are major constraints to quality delivery of higher education programmes in Nigeria. If these problems are not sincerely and holistically tackled, the quality of the output will not be guaranteed and the achievement of the objectives of higher education may become a mirage, Onyene, Ikebude and Uche (2009) warned.

1.3 Statement of Problem

Higher education by its nature and goals is being looked upon to produce high and middle level human resources for the national and economic development of Nigeria, more so in the southern part of the country. This part of the country is significant because it is where Niger Delta, the oil producing area, is located with all the challenges of oil exploration and production and yet poverty and

youth restiveness due to lack of development and long time neglect. It is also the location of Eastern Nigeria, whose indigenes are known to be more inclined to business than to education; and so are facing the challenges of prolonged period of ignorance of the value of education. Also, the public is now more aware and conscious of the meaning and role of higher education. There is high demand for higher education and its services in the Southern States of Nigeria. Consequently higher education is now being asked to be increasingly answerable (accountable) to its constituencies for the range of its services and the effectiveness of its performance (outcome), no matter the level of autonomy and academic freedom its operators may claim. This study therefore aimed at adopting the UNESCO 2002 input-process-output framework to assess the level of academic accountability in terms of the quality of their input, process and outcome. Other issues investigated in this study include the level of academic accountability in terms of the impact of research activities and community service carried out by lecturers and students and the constraints of academic accountability and quality assessment in higher education.

1.4 Purpose

The purpose of the study was to assess the academic accountability of Nigerian higher education in terms of the quality of the input, process and outputs by the institutions under study. Specifically the study tried to assess:

1. Academic accountability in terms of the quality of the input in the institutions
2. Academic accountability in terms of the quality of the process in the institutions
3. Academic accountability in terms of the quality of the output from the institutions
4. Academic accountability in terms of the impact of the research activities among the lecturers
5. Academic accountability in terms of the impact of the community service by the lecturers and examine the constraints of academic accountability in the institutions.

1.5 Research Questions

1. What is the level of academic accountability in terms of the quality of the inputs?
2. What is the level of academic accountability in terms of the quality of the process?
3. How can the quality of the output of the teaching and learning process be rated?

4. What degree of impact do research activities by lecturers have on the development of communities and institutions?
5. In what ways does the community service by the lecturers enhance the community development?
6. What are the constraints of academic accountability in the institutions?

1.6 Hypotheses

1. There is no significant difference between lecturers and students in their assessment of academic accountability in terms of the quality of the inputs
2. There is no significant difference between the students and the lecturers in their assessment of academic accountability in terms of the quality of the process in the institutions
3. There is no significant difference among the lecturers, students and community leaders in their assessment of quality of the output of the teaching and learning process
4. There are no significant differences between federal and state institutions in their assessment of the impact research activities by lecturers have on the development of the community and institutions.
5. There is no significant relationship between the quality of input and the quality of output of the teaching and learning process in the institutions.

2 Methodology

This study adopted a descriptive survey design to assess the level of academic accountability in terms of the quality of input, process, output and impact of research and community service in higher education. The sample size was drawn from a population of all the higher education institutions in Southern States of Nigeria. It included 150 lecturers, 350 final year students and 200 opinion leaders from the host community to the institutions randomly selected from 10 out of 45 institutions of higher learning in the 10 States. Thus the sample size of 700 respondents was used for the study. Two sets of questionnaire (one set for students and lecturers and one for the community people) titled" Level of academic accountability and quality assessment questionnaire 1 &2" (LAAQAQ 1& 2) were developed by the researchers, validated by experts in measurement and evaluation and certified reliable for the study through a test re test process which yielded a coefficient of 0.76 r. LAAQAQ 1 an 80 item questionnaire was administered to the students and lecturers while LAAQAQ 2 contained 54 items and was administered to the community opinion leaders within the host communities to the institutions. All the questionnaires administered were returned. Since the items in the

questionnaire were weighted in four point Likert scale the criterion mean of 2.50 was adopted for judgment (very high level-4; higher level-3; low level 2; very low level-1 and strongly agree-4; agree-3; disagree-2; strongly disagree-1). Mean scores and standard deviation were used to analyse the responses to the general research questions while t-test, Pearson's Moment Product Coefficient and Analysis of variance, ANOVA were used to test the hypotheses at significant level of 0.05. For the purpose of the test of ANOVA the opinions of 15 Community chairmen (CDC were specifically selected to be compared with the categories of respondents (students and teacher)

3 Findings

3.1 Academic Accountability in Terms of the Quality of the Inputs

Table 1: Quality of Inputs into Higher Education

Items	Mean	SD	Remarks
Curriculum content is comprehensively developed	2.95	0.77	High
Current and relevant textbooks are available	2.58	0.84	High
Learning materials are adequately used	2.36	0.75	low
Lecturers are qualified, always available and competent	2.70	0.74	High
Lecturers are well trained, motivated and committed	2.48	0.88	Low
Adequate facilities and conducive learning environment	2.19	2.24	Low
Parents/community support is provided	2.13	0.68	Low
Students behaviour are generally satisfactory	2.28	0.76	Low
Students are always ready to learn	2.41	0.83	Low
Students are committed and have the ability to persevere	2.51	0.85	High
Students cooperate in health, sport and rules on campus.	2.52	0.90	High
Parents have positive attitude to education of their children	2.77	0.89	High
Household income is generally high	2.29	0.88	Low
Cultural/religious values have influence in the school	2.50	0.83	High
Community economic base is strong for institutional support	2.52	0.89	High
There is linkage between institutions and labour market	2.52	0.86	High
Overall mean	2.48		

From Table 1, respondents indicated that the curriculum content is comprehensively developed (mean=2.95; SD=0.77); that current and relevant textbooks are available (mean=2.58; SD=0.84). It shows that learning material are not adequately used (mean=2.36; SD=0.75). Again, the result show that lecturers are qualified, always available and competent (mean=2.70; SD=0.74);

that they are committed and have the ability to persevere (mean=2.51; SD=0.85). It also indicate that students cooperate in health, sport and rules on campus (mean=2.52; SD=0.90); and that the parents have positive attitude towards education of their children (mean=2.77; SD=0.89). Furthermore, the result on the table showed that cultural and religious values have influence in the school (mean=2.50; SD=0.83); that community economic base is strong for institutional support (mean=2.52; SD=0.89), and that there is appropriate linkage between the labour market and the institution (mean=2.52; SD=0.86). However, from the table, students indicated that lecturers are not well trained, motivated and committed (mean=2.48; SD=0.88); that there are no adequate facilities and conducive learning environment (mean=2.19; SD=2.24), and that parents/community support is not provided (mean=2.13; SD=0.68). In the same vein, the result showed that students behaviour are generally unsatisfactory (mean=2.28; SD= 0.76). Students are not always ready to learn (mean=2.41; SD=0.83), and that household income is not generally high (mean=2.29; SD=0.88).

3.2 Academic Accountability in Terms of the Quality of the Process

Table 2: Academic Accountability in Terms of the Quality of the Process

Items	Mean	SD	Remarks
The leadership in the institution is very effective	2.80	0.82	High
Lecturers have positive attitude	2.73	0.84	High
Institution's environment is safe, friendly and gender sensitive	2.50	0.85	High
There are incentives for good results	2.35	0.83	Low
There is flexibility in operation	2.42	0.81	Low
Institutional autonomy is being fully implemented	2.31	0.87	Low
There is sufficient learning time for the programmes	2.32	0.76	Low
Teaching and learning is very effective	2.43	0.76	Low
There are active teaching methods	2.38	0.77	Low
There is integrated system for assessment and feedback	2.66	0.87	High
There is appropriate class size (i.e. teacher/students ratio)	2.40	0.86	High
There is appropriate use of language	2.80	0.76	High
Overall mean	2.51		

From Table 2, the mean value of 2.80 and standard deviation of 0.82 show that the leadership in the institution is very effective. The results also indicate that lecturers have positive attitude (mean=2.73; SD=0.84); and that the institutions environment is safe, student friendly and gender sensitive (mean=2.50; SD=0.85). Accordingly, the mean value of 2.66 and standard deviation 0.87 indicate that there is integrated system for assessment and feedback. Also,

students indicated appropriate use of language (mean=2.80; SD=0.76). On the other hand, the results show that there are no incentives for good results (mean=2.35; SD=0.83); there is no flexibility in operations (mean=2.42; SD=0.81), and that institutional autonomy is not being fully implemented (mean=2.31; SD=0.87). in the same direction, the mean value of 2.32 and standard deviation of 0.76 show that there is no sufficient learning time for the programme; teaching and learning process is not very effective(mean=2.43;SD=0.76) and that there are no active teaching methods(mean=2.38;SD=0.77). Also, the class size is not appropriate in terms of teacher/students ratio (mean=2.40; SD=0.86).

3.3 Quality of the Output of the Teaching and Learning Process

Table 3: Accountability in Terms of the Quality of the Outputs

	Students & lecturers			Community leaders		
Items	Mean	SD	Remarks	Mean	SD	Remarks
Students have achieved their aim of being in the institution	2.43	0.78	Low	2.78	0.96	High
Students have reached a high level of literacy, generic and skill development.	2.39	0.73	Low	2.70	0.64	High
Students have developed to level of good citizenship.	2.39	0.75	Low	2.62	0.64	High
Students have reached high level of personal development	2.47	0.79	Low	2.34	0.79	Low
Students now have positive attitude towards learning	2.48	0.84	Low	3.06	0.92	High
Students have3 healthy behaviour	2.42	0.75	Low	2.34	0.65	Low
All students have attained formal completion of their programme	2.47	0.78	Low	2.56	0.65	High
Institutional outputs are of high standards in terms of the official learning objectives	2.56	0.78	High	2.71	0.78	High
They possess the desired and socially acceptable values	2.54	0.81	High	2.72	0.45	High
Both lecturers and students have become the role model in the society	2.64	0.85	High	2.53	0.90	High
Overall mean	2.48			2.64		high

From table 3, the overall mean shows that the community people rated the output higher (2.64) than the students and lecturers (2.48). While students and lecturers believe that students have not achieved their aim of being in the institution (mean=2.43; SD=0.78); that students have not reached a high level of literacy, generic and skill development (mean=2.39; SD=0.73), the

community people think otherwise (2.78 and 2.70). However the result show all the categories of the respondents agree that students and lecturers have become role models in the society (2.64 for students and lecturers and 2.53 for community people).

3.4 Impact of Lecturers' Research Activities on Community Development

Table 4: Impact of Lecturers' Research Activities on Community Development

Items	Mean	SD	Remarks	Mean	SD	Remark
Helps staff training	2.87	0.90	High	2.99	0.95	High
Attracts funds and equipments to institution	2.58	0.80	High	2.72	0.74	High
Improvement of teaching quality	2.84	0.79	High	2.73	0.62	High
Helps staff advancement through promotion	2.84	0.87	High	2.87	1.00	High
Increasing awareness of new knowledge	2.83	0.85	High	2.91	0.67	High
Enhancing development and improvement of industry's products and services.	2.61	0.83	High	2.91	0.79	High
Findings lead to solutions of societal problems	2.58	0.91	High	2.64	0.64	High
Collaboration between staff/ institution/ community	2.53	0.89	High	2.37	0.64	Low
Social networking	2.61	0.91	High	2.92	0.50	High
Overall mean	2.70			2.78		

From the data in table 4, the research activities among lecturers has a high degree of impact on the development of the institutions and communities, (overall mean of 2.70 for students and lecturers and 2.78 for community leaders); helps staff training(mean=2.87;SD=0.90, 2.99;0.95); it also attract fund and equipments to institutions(mean=2.58;SD=0.80, 2.72;0.74), and also, that there is social networking(mean=2.61;SD=0.91, 2.92;0.50). However, the results did not agree that there is collaboration between staff/institution/community (mean=2.53;SD=0.89, 2.37;0.64). Community leaders assessed this item low (mean=2.37).

3.5 Impact of Lecturers' Community Service Activities on Community Development

Table 5: Impact of Lecturers' Community Service Activities on Community Development

	Students & lecturers			Community leaders		
Items	Mean	SD	Remarks	Mean	SD	Remarks
Community development through skills acquisitions projects by lecturers & students	2.66	0.83	High	2.82	0.58	High
Regular heath talks organised for community	2.58	0.83	High	2.90	0.79	High
Encouraging political awareness and participation through political education	2.64	0.81	High	3.01	0.73	High
Instilling values of good practice and free enterprise	2.79	0.84	High	2.82	0.72	High
Providing teaching and training for environmental hygiene in the community	2.74	0.86	High	2.81	0.94	High
Organising ICT literacy programmes for community	2.66	0.80	High	2.90	0.67	High
Campaign for self development and good citizenship	2.71	0.77	High	2.44	0.79	High
Providing innovative ideas and leadership through involvement in community meetings	2.65	0.80	High	3.06	0.68	Low
Organising extra-moral classes	2.52	0.86	High	2.81	0.84	High
Organising adult literacy programmes	2.53	0.87	High	2.78	0.72	High
Organising youth development and empowerment programmes	2.63	0.89	High	2.61	1.07	High
Participating in farming activities	2.50	0.84	High	2.57	.091	High
Engineering activities for innovative and indigenous adaptive technology.	2.46	0.96	Low	3.29	0.86	High
Overall mean	2.62			2.83		High

From table 5, almost all the items were accepted as ways community service in the institutions enhance community service (0verall mean of 2.62 for students and lecturers and 2.83 for community leaders) Respondents indicated that there is community development through skills acquisitions projects carried out by lecturers and students (mean=2.66; SD=0.83, 2.82; 0.58), instilling the values of practice and free enterprise through entrepreneurship education (mean=2.79; SD=0.84, 2.82; 0.72). It provides teaching and training for environmental hygiene in the community (mean=2.74; SD=0.86). Also, there is campaign for self development and good citizenship (mean=2.71; SD=0.77) as agreed by students and lecturers though the community leaders disagreed to this (2.44; 0.79).

However, the mean value of 2.46 (SD=0.96) for students and lecturers

indicates there is no engineering activities for innovative and indigenous adaptive technology though community leaders accepted the item (mean=3.29 and SD=0.86).

3.6 Constraints to Academic Accountability

Table 6: Constraints to Academic Accountability

Items	Mean	SD	Remarks	Mean	SD	Remarks
Gross inadequate funding	2.65	0.99	High	3.36	0.48	High
Dramatic increase in students input	2.63	0.94	High	3.18	0.71	High
Students are not ready to learn	2.63	0.98	High	3.02	0.74	High
Students are distracted by societal activities	2.47	0.96	Low	3.28	0.95	High
Decline in teaching and research facilities	2.56	0.95	High	3.11	0.79	High
Poorly remunerated staff	2.46	0.94	Low	3.29	0.61	High
Low staff strength	2.49	0.93	Low	3.01	0.74	High
Lack of competence in the faculty members	2.37	0.87	Low	3.09	0.79	High
Lecturers are not available most of the time	2.40	0.92	low	2.91	0.79	High
Inadequate time for teaching and learning	2.55	0.89	High	3.46	0.65	High
Inadequate books and journal subscription	2.77	0.95	High	2.83	0.71	High
Impaired teaching and learning environment	2.71	0.94	High	2.76	0.87	High
Poor quality of students input	2.58	0.89	High	2.74	0.98	High
Low parents/ community support	2.39	0.95	Low	3.01	0.74	High
Bad leadership	2.54	0.97	High	3.07	1.00	High
Political instability	2.62	10.2	High	3.36	0.77	High
Lack of political support for implementation of higher education policies	2.83	0.99	High	2.93	0.80	High
Political insincerity in developing higher education	2.82	0.93	High	3.02	0.75	High
Low income base of household	2.72	0.95	High	2.92	1.01	High
Lack of effective linkage mechanism between institutions and labour market	2.77	0.90	High	2.92	0.91	High
Non-utilization of research findings	2.76	0.99	High	3.21	0.72	High
Overall mean	2.61			2.92		

The high overall means by the respondents show that all the items listed in the table 6 above are constraints to academic accountability and quality in higher education (2.61 for students and lecturers and 2.92 for community leaders). The students and lecturers however indicated that students are not highly distracted by other societal activities (mean=2.47; SD=0.96); that staffs are not poorly remunerated (mean=2.46; SD=0.94); that the staff strength is not low (2.49; SD=0.93) while the community leaders disagreed. Also, both categories of respondents show that there is political instability (mean=2.62; SD = 1.02, 3.66; .77), and there is lack of political willingness to support the implementation of

higher education policies (mean=2.83; SD=0.99, 2.93'0.80). Furthermore, the mean value of (2.77, SD = 0.90) for students and lecturers and (2.92, 0.91) for community leaders indicate that there is lack of effective linkage mechanism between institutions and the labour market, and the mean value of (2.76, SD = 0.99) for students and lecturers and mean of (3.21, SD = 0.72) for community leaders indicate non usage of research findings as constraints to accountability.

3.7 Significance of Findings

Table 7: Significance of Assessment of the Quality of Inputs and Processes

Hypothesis	Categories	N	Mean	SD	Df	Z-cal	Z-tab	Remarks
1. There is no significant difference between lecturers and students in their assessment of the quality of the inputs	Lecturers	186	37.83	6.47	483	-5.23	1.96	Significant
	Students	299	40.89	5.95				
2. There is no significant difference between the students and the lecturers in their assessment of the quality of the process	Lecturers	186	29.48	5.01	483	-1.89	1.96	Not significant
	Students	299	30.36	5.01				
4. There is no significant difference between federal and state institutions in their assessment of the quality of output	Federal university	210	24.96	4.74	483	1.04	1.96	Not significant
	State university	275	24.51	4.73				

Table 7 shows the mean score for lecturers is 37.83(SD=6.47) while mean score for students is 40.89 (SD=5.95). This is with respect to their assessment of the quality of the inputs. Since the *Z-calculated* value of 5.23 is greater than *Z-tabulated* value of 1.96, we reject the null hypothesis. Therefore, there is significant difference between lecturers and students in their assessment of the quality of the input. The mean score for lecturers is 29.48 (SD=5.01) while that of the students is 30.36(SD=5.01). This is with respect to their assessment of the quality of the process in the institution. Since the *Z-cal*. Value of 1.89 is less than the *Z-tab*. Value of 1.96, the null hypothesis is accepted. Thus, there is no significant difference between the students and the lecturers in their assessment of the quality of the process in the institution. The findings on the third hypothesis (i.e. "there are no significant differences among lecturers, students and community development chairmen (CDC) in their assessment of quality output of the higher education") are summarised in Table 8. Regarding

hypothesis four, the results in Table 7 indicate that the mean score for federal institutions is 24.96 (SD=4.74) while that of state institutions is 24.52 (SD=4.73). This result is with respect to their assessment of the quality of output. Since the Z-cal value of 1.04 is less than the Ztab value of 1.96, then, the null hypothesis is accepted. This implies that there is no significant difference between federal and state institutions in their assessment of the quality of output.

Table 8: ANOVA in Respondents' Views

Source	Some of squares	df	Mean square	F-calc	F-tab	Remarks
Between Groups	282.546	2	141.273	*6.218	3.02	Significant
Within Groups	11291.156	497	22.719			
Total	11573.702	499				
Post Hoc Multiple Comparisons						
Variables		N				Means
Lecturers		186				24.156a
Students		299				25.047a
Community Development Chairmen		15 (specifically selected for this test)				23.333b

*Significant

**Mean scores with different letters are significantly different at the 0.05 level.

A cross section of the community opinion leaders was specifically selected to compare their opinion with that of the lecturers and students using ANOVA. Thus only 15 of them who are the community development chairmen were selected for this purpose. The F-calculated value of 6.218 which is greater than the F-tabulated value of 3.02 suggests that there are significant differences among the three groups (Table 8).

A further test was conducted using the Scheffe Multiple Comparisons Test. From the analysis lecturers' mean score was 24.156, while students' mean score was 25.047. However, mean score for community leaders was 23.33. A perusal at Table 8 reveals that there was no significant difference between mean scores of lecturers and students, but significant differences were recorded between lecturers and community leaders on the one hand and students and community on the other hand.

The hypothesis that "there is no significant relationship between the quality of the input and the quality of the output" was verified using Pearson's Correlation Test (Table 9).

Table 9: Relationship between the Quality of Inputs and Outputs

Variables	r-cal	r-tab	Remark
Quality of input versus quality of output	0.461	0.098	There is a significant relationship

Table 9 shows the correlation between the quality of inputs and the quality of output. Form the table, since the r-cal value of 0.461 is greater than the r-tab value of 0.098, the null hypothesis is rejected. Therefore, there is significant relationship between the quality of input and the quality of output of the teaching and learning process in the institutions.

4 Discussion

This study has found out that the level of academic accountability in terms of the quality of the input is generally low. This is worrisome because the input determines the nature of the transformation process and the quality of output of goods or service from the system. If the quality of the input components of higher education which include the people (students and staff),material resources, information resources as well as the non-material components like the norms, values and standards regulating the instructional activities cannot be guaranteed as indicated in this finding, the quality of the output will also be affected. If the students are not ready to learn they will engage in other social vices such as cultism and exam malpractice which will be detrimental to their lives, peace and development of the society. This finding is not surprising when we consider the characteristic, and nature of Southern Nigeria where the study was carried out; South East is known for business and South-South is known for the oil exploration and production. It is expected that the money being generated from the business and oil production activities will be used to develop the institutions in these areas. However the physical observation indicates that this is not reflected in the infrastructural development in the institutions, rather students are being distracted by social activities and the quest of making quick money. Uche, Okoli and Ahunanya, 2010 Uche 2010) also recorded the same findings from their studies. The findings also show that there is significant difference in the opinions of the students and lecturers with students indicating stronger opinion that the quality of input is low. This finding is in agreement with Uche 2010. The students are directly affected by poor quality of resources in their institutions and it is good that now is the time to speak out.

The findings also indicates that the level of academic accountability in terms of the quality of the process is high (overall mean of 2.51, slightly higher than the criterion mean), especially in the areas of leadership in the institutions, appropriate use of language and lecturers' positive attitude. However the level of quality in terms of institutional autonomy, teaching method and incentive for good result is low.

The transformation process constitutes the basic activities of teaching, learning, evaluation and the managerial elements of the higher educational

process. The nature and efficacy of the transformation process is not dependent on one unit but on all the elements of the institutions' programmes. It is at this level that behavioural changes occur and strong character and effective orientation built in the students. Thus effective leadership, use of appropriate language and integrated system for assessment and feedback will be geared towards inculcating a spirit of community and leadership in the students who will eventually go back to the society and become leaders and agents of change in making their contribution to the development of the community (Creech, 1999). The low institutional autonomy as indicated in this study is not good news to the Nigerian higher education, especially as it concerns academic freedom, research and knowledge production. This has been a long running battle between the government and the academics especially in the areas of student admission finance and control and of course demand for academic accountability.

From the opinion of the students and lecturers, the level of academic accountability in terms of the quality of the output is low (criterion mean of 2.48) especially in the level of literacy and citizenship; while the community people's opinion indicated high level (overall mean of 2.68) especially in the achievement of aims of being in school, development of skills and socially accepted values. Lectures and students engage in behaviour modification process that helps the students' build up their characters through training from the on-set. The qualities of the input that are processed to produce the desired outputs were found to be low. This may be attributed to insufficient funding and lack of political willingness to support higher education institutions' programmes and activities. However, the society wants high quality graduates but this cannot be possible without huge investment. In spite of low quality of the output, communities in eastern and Niger Delta states appreciate the graduates from higher education institutions that come from their states. They see these graduates as role model, since most of their youths are school dropouts. Although the high rate of unemployment and unemployable in the country put a big question mark on the achievement of higher education goal.

All categories of respondents agree that research activities by lecturers have made a high degree of impact to the development of community and the institutions. This may be as a result of the impact of community service in the institutions which covers entrepreneurship education, teaching and training for environmental hygiene, campaign for self development, and good citizenship. Interview schedules with the community development chairmen (CDC) also indicated that extra moral classes and community based development projects carried by the lecturers and students have been great interventions in environmental development, health, agriculture, business and political empowerment. This recognition is in agreement with Uche, 2009 that reveals high level of student involvement in community development through student

in free enterprise projects. Research activities and dissemination of knowledge is another area through which higher education impacts the institutions and the society positively as similarly supported by Agabi & Uche (2004; Okorie & Uche, 2005). However, the present study reveals that the level of engineering activities for innovative and adaptive technology is low (2.46). This is worrisome in this era of advancement on local technology. If university research is to assist national development, it must be relevant to the nation's development goals through linkage with industries, community and the world. The higher education should train graduates and scholars that can use local raw materials to develop the technology that will be beneficial to the community and economy of the nation. This is already specified in the National Policy on Education (2004) but the level of its implementation may form a question for another study.

The study also revealed that generally lack of political willingness to support the implementation of higher education policies, political insincerity in the development of higher education, non usage of research findings and gross inadequate funding are major constraints to accountability and quality in higher education. Surprisingly poorly remunerated staff is not a rated as a major constraint in the study.

Generally the major constraints of academic accountability and quality in higher education are lack of political willingness to support the implementation of higher education policies, political insincerity in the development of higher education, non usage of research findings and gross inadequate funding. Surprisingly poorly remunerated staff, low staff strength and lack of competence in the faculty members were scored low by students and lecturers but high by community people. Though this finding is in disagreement with Amadike (2009), it may mean that to the students and lecturers, political insincerity is the main problem to the development of higher education in Nigeria. Once the political will power is exercised every other thing will be put in place. The community people believe that the lecturers are poorly paid and this was reflected in their massive support during the national strike by university workers that led to the federal government/ASUU agreement in 2009 which caused a great increment in the workers' salaries.

5 Conclusions, Implications and Recommendations

Higher education in any nation is charged with the development of middle and high level manpower that will contribute to its national and economic development. The findings have revealed that the quality of the input is low and this has reflected in the low quality of the output, though the quality of the process was rated high. The implication of the low quality of input and output

as revealed in this study is that the higher education is not producing the quality of graduates that will contribute to the national development. It also means that the resources available in the institutions are of low quality. This may explain the reason why there are so many graduates roaming the streets without jobs and skills. This also explains why some companies send newly employed graduates to further training before they can be allowed to start work because the quality cannot be ascertained. This is a worrisome development and puts a big question mark on the academic accountability for the huge resources being spent on higher education. The study also identified lack of political willingness to develop higher education as major constraints to academic accountability and quality. If the leaders are not sincere and willing to develop a system, the quality of its components cannot be guaranteed. That the quality of transformational process; the degree of the impact of research; and community service on development were rated high by the respondents indicates that the people at the operational base are ready to perform if the right inputs and political will power are provided. Academic accountability and quality are two inseparable concepts in higher education that need great emphasis in all ramifications if the higher institutions in Nigeria could join the world in achieving MDGs in 2020. Based on the findings the following recommendations are made:

1. There is need for urgent interventions to improve quality of the input, (both human, material, financial resource), the programmes and other activities in the institutions
2. Lecturers should be given training on quality assurance and other orientation that they will need to account for quality in what they do, how they do it and what they produce
3. Jobs should be created by both government, industries and other individual organisations to absorb the graduates that are being produced from higher education
4. There should be practical sessions for all students at different level to be trained on how to use local materials to create facilities for development irrespective of their field of study to enable them stand on their own when they finish school.
5. Quality should be emphasised at other levels of education (primary and secondary) and all areas of the society from where the students' inputs are taken to make the work of developing the students easier.
6. The political leaders at all levels should develop the right mindset and willingness to develop the nation's higher education as obtainable in other developed world.
7. More emphasis should be on relevant and functional research, university/industry collaboration to boost innovative and adaptive technology

8. Accountability must be geared towards improving students learning and development. Therefore all stakeholders in education including (higher education) must be involved in accountability through meaningful contribution and in honesty in their respective roles to ensure effective provision of functional education of the upcoming generation

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Developing Pre-service Teachers' Technology Integration Competencies in Science and Mathematics Teaching: Experiences from Tanzania and Uganda

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Abstract. This study investigated the ICT integration practices in pre-service teacher education in the School of Education at Makerere University (College of Education and External Studies) in Uganda and Dar es salaam University College of Education (DUCE), a constituent college of the University of Dar es salaam in Tanzania. Specifically, the study aimed at establishing ways in which ICTs were being deployed in pre-service teacher training in the two colleges. It also investigated the factors constraining integration of ICTs in pre-service teacher education as perceived by the pre-service teachers and lecturers at the colleges. Using questionnaires and interview, data were collected from both the lecturers and final year pre-service teachers during the academic year (2009/2010). The findings revealed that, limited access to ICTs, limited lecturers' knowledge of ICTs and limited use of the available ICTs affected usage of the technologies. Thus, it emerged that there is a need to explore models situated in a more encompassing theoretical framework like Technological Pedagogical Content Knowledge (TPACK) so as to realise sustainable pedagogical practices in classrooms proliferated with technology.

Keywords: TPACK; Professional development; Science education

1 Introduction

While the need to have a more scientifically literate population to address the global challenges that humanity now faces continues to grow, the teaching and learning of science and mathematics continue to place a lot of challenges to teachers. This failure is setting an alarm to governments, parents and schools all around the world. Although many countries in the world are experiencing poor students' participation and performance in science and mathematics-related

subjects (Beauchamp & Parkinson, 2008; Martin et al, 2008), African countries have the worst experience in these subjects, particularly mathematics (Martin et al, 2008). Uganda and Tanzania are some of the African countries which experience high failure rates in science and mathematics at the primary and secondary levels of education (Uganda National Examination Board - UNEB, 2008; URT, 2008).

Failure in these subjects is raising a debate on how teachers teach and how students learn. Some see the failure as being born from teachers, due to lack of important teaching competencies (Kafyulilo, 2011), while others see the failure as resulting from lack of students motivation in science and mathematics (Yunus, & Ali, 2009). However, Koehler & Mishra (2009) see the problem as being caused by both teaching approaches and the way students learn. Thus, Koehler & Mishra (2009) call for an approach that treats teaching as an interaction between what teachers know and how they apply what they know in a unique circumstance or contexts within their classroom.

Luis, Illera & Escofet (2009), support the idea of Kohler & Mishra, by proposing the adoption of a learner- centred approach, an approach which is widely promoted throughout the world for its impact on students' learning. However, effective learner- centred approach requires flexibility among students in terms of location, time, materials, content and teaching approaches (Collis & Moonen, 2001). This flexibility can best be offered by ICT (Collis & Moonen, 2001). The use of ICT in teaching and learning can facilitate students' learning from any location, at any time and at a learner's preferred pace. According to Kafyulilo & Fisser (2011), ICTs such as mobile phones, are important tools for facilitating learning beyond the classroom walls. This helps learners to keep in touch with their teachers wherever they are.

1.1 ICT Integration in Education

In this article, ICT refers to all products that can store, retrieve, manipulate, transmit or receive information electronically in a digital form (Luppicini, 2005). Defining integration of ICTs in education remains problematic. However, it is generally agreed that, 'ICT integration' denotes a change in pedagogical practices that makes ICT less peripheral in classroom teaching (Law, Pelgrum & Plomp, 2008). This practice definition was adopted for the first phase of this study, as a benchmark for the researchers in investigating how ICTs are currently deployed within pedagogical practices of the lecturers for pre-service teachers in the School of Education at Makerere University in Uganda and Dar es salaam University College of Education in Tanzania.

In this study, ICTs integration practices were conceived from a perspective of use of mediation tools such as, computers, cell phones, interactive white boards, digital cameras, the Internet etc to communicate, create, disseminate,

store and manage information (Luppicini, 2005). Several practices around the use of ICTs in education continue to emerge depending on whether ICTs are seen as production tools that can support scaffolding on the side of the learners or as mediation tools to support the social theories in education that encourage collaboration, interaction and inquisition as a way of learning. However, such practices require the teacher to possess an adequate subject matter knowledge, pedagogical knowledge and pedagogical content knowledge (Shulman, 1986).

Consequently, it was important to explore how teacher educators were negotiating the new roles arising from the shift in pedagogy that might result from integration of ICT in their teaching. Fluck (2009) argues that attention should be placed on the transformative view of use of ICTs as observed in the new ways of learning and teaching (pedagogies) in the daily practices in pre-service teacher education. This suggests that, ICTs integration practices should reflect more of the pedagogical appropriateness that support new instructional and learning experiences uniquely provided by ICTs. Such practices should enable pre-service teachers to transform their own understandings and extend their experiences with ICTs that are relevant both to enhance their understanding of the subject content and method of teaching within a classroom situation.

1.2 ICT and Transformation of Learning of Science and Mathematics

Several authors (e.g. Beauchamp & Parkinson, 2008; Keong, Horani & Daniel, 2005; Niess, 2005) observe that utilisation of ICTs improves the teaching of science and Mathematics-related subjects. ICTs present a paradigm shift from teacher-centred to learner-centred, from individual learning to collaborative learning, and from the teacher as a source of knowledge to a learner as source of knowledge (Collis & Moonen, 2001; Kafyulilo, Fisser & Voogt, 2011; Nieveen, Handelzalts, van den Akker & Homminga, 2005). The ability to harness ICT in the design of learning in the classroom can have an impact on the engagement of students through creating more options for learners to connect technology with their course content.

While the actual impact of using ICTs in education on the achievement of learners remains debatable, some studies (e.g. Wellington, 2005; Halls & Higgins, 2005; Clements, 2000) have reported high enhancement of the teaching/learning process when ICTs are used (cf. Keong, Horani, & Daniel, 2005). Appreciative of the potential of technology in education, the government of Uganda, through the Ministry of Education and Sports, is pursuing a new policy requiring science teachers to integrate ICTs in their normal teaching. The government of the United Republic of Tanzania, through its Ministry of Education and Vocational Training, is also implementing the ICT policy for

basic education through the "Tanzania beyond Tomorrow" project funded by the World Bank and the Swedish Government.

One might argue that, while the governments of Uganda and the United Republic of Tanzania are attempting to provide enabling conditions through provision of computers to schools; the existence of ICTs alone does not transform teachers' practices (Kafyulilo, 2011). Teachers' pedagogical philosophies are reported to often influence the types of usage of ICTs. For instance, teachers who use ICTs the most—and the most effectively—are less likely to use traditional 'transmission-method' pedagogies (LeBaron, McDonough & Robinson, 2009; Trucano, 2005). Instead, they tend to practice more "constructivist" pedagogies. However, Hargreaves (1992) asserts that, promotion of different teaching methods, and other educational reforms fail if they are introduced without a very substantial teacher education component.

Teachers' limited proficiency, to integrate technology particularly in instructional and learning activities is highly widespread (Olakulehin, 2007). This seems to suggest that, a holistic approach focusing on technology, content and pedagogy as interrelated aspects in teacher training is important. Makrakis (2005) clearly points out that, new technologies require new teacher roles, new pedagogies, and new approaches to teacher training. However, the responsibility of preparing teachers, who are ready to integrate technologies in their teaching, lies with Teacher Educators and the Teacher training institutions (Howland &Wedman, 2004: LeBaron, et al, 2009). In addition to equipping pre-service teachers with subject–specific expertise, teacher training courses should prepare their attendees for the challenges of a changing world, by imparting effective teaching practices, an understanding of technology and the ability to work collaboratively with other teachers and their future students. Boling (2003) clearly asserts that, "If teacher education programs hope to keep up with the changes that are occurring as a result of this new digital society, then it is imperative that we take a closer look at the role that technology can have in transforming teacher preparation" (Boling, 2003, p. 72).

However, according to a UNESCO report by Khvilon and Patru (2002), no comprehensive framework of teacher training in ICT use in Africa was in existence and the few that were being used had been mostly developed outside of Africa. Shafika (2006) equally, pointed out the general absence of conceptual clarity, on the objectives of teacher professional development programmes for ICT initiatives in the African region. The situation in Uganda and Tanzania has not been any different. From a recent survey in Uganda (Ndidde et al, 2009) and Tanzania (Kafyulilo, et al, 2011) it was reported that, in addition to the failure of the current teacher training to mainstream ICT in the curriculum; many of the continuous professional development programmes for educators, rarely included ICT integration.

1.3 Problem and Research Questions

There is considerable literature on the effective use of ICTs in pre-service teacher education (cf. Kay, 2006; Shoffner, 2009; Sølvberga , Rismarka , & Haalanda, 2009). Despite this corpus of knowledge, many of the studies above were carried out in the developed world and have identified the need for more similar studies in different contexts to generate universal findings. Indeed, as pointed out by LeBaron et al (2009), there still exists a dearth of literature on the ICT integration in teacher education in Tanzania and Uganda. It is in acknowledgement of such need that the researchers undertook this study.

The main research question addressed in this study was: To what extent are pre-service teachers in Uganda and Tanzania prepared to effectively integrate technology in science and mathematics teaching? This general research question was answered by working out the following specific questions:

1. What is the level of accessibility to technology by the pre-service teachers and lecturers at the University of Makerere and Dar es salaam University College of Education?
2. What is the current pre-service teachers' technology integration competency in Tanzania and Uganda?
3. What are the constraining factors to ICT integration in pre-service teacher education as perceived by the pre-service teachers and lecturers?

2 Methodology

This study adopted the cross sectional survey research design to explore the status of technology integration in teacher training colleges in Tanzania and Uganda. According to Olsen & St. George, D.M. (2004) in a cross-sectional study design, either the entire population or a subset thereof is selected, and from these individuals, data are collected to help answer research questions of interest. In this study, pre-service teachers from DUCE and School of Education, Makerere University were selected to represent the other teacher training colleges in the Tanzania and Uganda.

2.1 Participants

Participants in this study were the final year pre-service teachers from Makerere University and Dar es salaam University College of Education (DUCE), and lecturers from the School of Education at Makerere University in Uganda and DUCE in Tanzania. Makerere University was chosen because it is the most technologically equipped, boasting of a regional IT academy and producing the biggest number of pre-service teachers in Uganda, whereas DUCE was selected

because it is one of the two constituent colleges of the University of Dar es salaam which solely prepare teachers in Tanzania and have the role to ensure that teachers are equipped with the knowledge required for better delivery of learning to students. DUCE has a population of 3550 students and 175 members of academic staff. Of these 29 pre-service teachers and 4 academic staffs participated in the study. The School of Education Makerere has a population of 107 members of the academic staff and about 3500 students. 505 of these students are pursuing a Bachelor of Science with education degree.

Twenty questionnaires targeting lecturers who were at the time teaching pre-service teachers were administered. Sixteen out of the twenty lecturers agreed to participate in this study providing a response rate of 80%. Sixty-nine out of the eighty questionnaires administered for the final year pre-service teachers were returned, giving a response rate of 86%. At the time of the study, these pre-service teachers were in their final semester of training for the academic year 2009/10. The pre-service teachers from School of Education Makerere were being trained to become secondary school teachers, while those in Tanzania were undertaking a degree leading to the award of Bachelor of Education in Science and were being trained to become college tutors.

2.2 Data collection:

2.2.1 Questionnaire for Lecturers:

The researchers designed a 59-item questionnaire comprising of questions that were specifically for this research while several other items were adapted and modified from two previous survey instruments developed by Ropp (1999), and the International Society of Technology in Education in 1998. The items were adopted because the current technological use in the context of this study is not any much different from the one, at the time these items were developed for the previous studies elsewhere. The scales as used in other studies (i.e. Markauskaite, 2007; Rekabdarkolaei & Amuei, 2008) were maintained. The questionnaire for lecturers comprised of six sections; a section for demographic information, computer proficiency and competency, frequency of use, current technological tools, access to support in University context and access to various forms of technology in three different contexts.

2.2.2 Interview for Lecturers

Lecturers from the DUCE participated in the interview with the researcher regarding their technology use in pre-service teachers training. Lecturers were asked about their knowledge about Technological pedagogical content knowledge (TPACK) framework and whether or not they were using this framework in the preparation of pre-service teachers. They were further asked

on the challenges and opportunities they experience in technology integration in their teaching and whether or not technology can enhance teaching and learning in science and mathematics. Lecturers at DUCE did not participate in the filling of questionnaire, because there were only few lecturers who were willing to participate in the study.

2.2.3 Questionnaire for Final Year Pre-service Teachers

The researchers also designed a 26-item questionnaire for pre-service teachers comprising of 19 close-ended items and seven open ended ones. Equally, the open-ended items addressed similar issues and same theoretical justification as those in one for the lecturers only that they were designed from the perspective of a student respondent. The questionnaire for the final year pre-service teachers was adopted from Schmidt et al (2009) and comprised four sections. These included a section for demographic information, another about computer proficiency and competency, technology integration competencies (with a focus on the understanding of TPACK) and a final section about access to various forms of technology in three different contexts.

3 Results

Findings indicated that pre-service teachers and lecturers had a limited access to technological tools. An analysis of the extent to which different technological tools were accessible to pre-service teachers and lecturers in different courses, revealed that the access to audios, iPod and digital photo camera were low in a five-point Likert scale where 1 = never, 2 = once a month, 3 = once a week, 4 = about 3 times a week and 5 = daily. The findings were as presented in Table 1.

Table 1: Access to Technological Tools among Pre-service Teachers

	Dar es salaam University College of Education			Makerere University School of Education		
	N	M	SD	N	M	SD
Access to Computer	29	3.34	0.55	69	3.55	0.69
Access to Radio	29	3.21	0.86	69	2.78	0.76
Access to Audio Equipment	29	2.34	0.67	69	2.34	0.71
Access to iPods	29	1.24	0.58	69	1.84	0.90
Access to Mobile Phone	29	3.73	0.94	69	3.61	0.53
Access to digital Camera	29	1.40	0.54	69	2.67	0.64
Access to television	29	2.97	0.82	69	3.48	0.63

Scale: 1=never, 2 = monthly, 3 = once a week, 4 = about 3 times a week, 5 = daily

The accessibility to technological tools among pre-service teachers at DUCE (Table 1) had an average mean of 2.60 (SD = 0.71) and the School of Education

Makerere University had an average mean of 2.90 (SD = 0.69). Mobile phones were the most freely accessible technological tools to pre-service teachers at both DUCE and Makerere University.

Similarly, responses of lecturers from DUCE and Makerere University indicated results similar to those of the pre-service teachers; where lectures from DUCE claimed in the interview with the researcher that, they had limited access and use of technology at the college for teaching process, while those from School of Education Makerere University indicated technology use on a daily basis.

Lecturers from DUCE argued that they have their personal laptops, which they use mostly for preparing exams, writing reports and preparation of students examination results, but they don't use these laptops for teaching process. One of the reasons for the continued use of local teaching methods was reported to be the lack of other technological tools at the college such as computers and beam projectors.

On the other hand, findings from School of Education Makerere University have indicated a high level of access to technological tools at the University as well as high level of uses of these tools for teaching and learning process. Table 2: indicate the level of access to technology by the lecturers at Makerere University, at home, at the university and other places.

Table 2: Makerere University Lecturers' Access to Technology

		Daily	2 to 3 times a week	Once a week	Never
At home	Mobile phone	87.5% (14)	6.25% (1)	-	6.25%(1)
	Computer/laptop	62.5% (10)	31.3% (5)	-	6.25%(1)
	iPod	6.25%(1)	-	6.25% (1)	87.5%(14)
	Internet	25%(4)	12.5%(2)	-	62.5% (10)
At University	Mobile phone	87.5% (14)	6.25%(1)	-	6.25%(1)
	Computer/laptop	68.8%(11)	31.3% (5)	-	-
	iPod	6.25%(1)	-	6.25% (1)	87.5% (14)
	Internet	87.5%(14)	12.5% (2)	-	-
Others(e.g. cafés)		-	12.5% (2)	18.8% (3)	37.5%(6)

As it was to the pre-service teachers, lecturers were as well having more access to mobile phones compared to other technological tools such as iPods, Mp3, digital camera etc.

A further analysis of pre-service teachers and lecturers on their technological competencies, revealed a limited knowledge of both pre-service teachers and lecturers on the use of technology in teaching and learning. Results from pre-service teachers questionnaire on their knowledge of technology, pedagogy, content and the integration between these components revealed low level of

pre-service teachers' Technological Pedagogical Knowledge, Technological Content Knowledge, Technological Knowledge as well as Technological Pedagogical Content Knowledge.

Table 3: Competencies in TPACK among Pre-service Teachers (Makerere University School of Education Makerere University and DUCE)

Competency area	Mean	SD
Technological Knowledge	2.43	0.65
Pedagogical Knowledge	3.87	0.46
Content knowledge	3.85	0.48
Pedagogical Content Knowledge	3.67	0.57
Technological Content Knowledge	2.54	0.53
Technological Pedagogical Knowledge	3.03	0.67
Technological Pedagogical Content Knowledge	2.46	0.58

Results in Table 3 show the average values of mean and standard deviations for both Tanzania and Uganda. Data from individual countries indicated that pre-service teachers from Tanzania thought that they knew more about technology integration than it was reported by Ugandan pre-service teachers. However, when pre-service teachers from Tanzania were subjected to practical use of technology, their competencies were found to be limited. Overall, results from the questionnaire indicate that pre-service teachers' technological knowledge, technological pedagogical knowledge, technological content knowledge and technological pedagogical content knowledge were more limited than the knowledge of pedagogy, content as well as pedagogical content knowledge which have for a long time been the focus knowledge for teachers' preparations. On the other hand, interview with lecturers from DUCE on their technology integration competencies had the responses presented in Table 4.

Table 4: Summary of Interview with College Instructors

Question	Interviewee 1	Interviewee 2	Interviewee3	Interviewee 4
How can you rate your own technological competency?	I have a moderate competency. …this is caused by the limited supply of ICT facilities at the college… the college lacks ICT tools such as interactive white board, learning environment etc	…my technological competency is very low. …I don't have knowledge about ICT tools that can facilitate learning. I also don't know the software and some computer programs that I can support learning.	Majority of teachers at this college are missing the skills of using CT…but I can't say I am excellent, I think I am average	I have moderate competency. …we don't have most of the technological tools here… it becomes very difficult to work with technology.

The results presented in Table 4 imply that even the lecturers still have limited Technological Pedagogical Content Knowledge. This may further imply limited

use of technology to enhance teaching and learning. This is likely to have an impact on the development of technological knowledge among the pre-service teachers.

Several factors were reported to contribute to the low level of technology integration in education in both Tanzania and Uganda. During the interview with pre-service teachers on the possible factors influencing their technology integration in teaching and learning process, it was revealed that some of the most common factors were; Limited technological knowledge among both pre-service teachers and lecturers, also lack of technological tools in most of the educational institutions. It was reported by both lecturers and pre-service teachers that the availability of technological tools in schools was another factor contributing limited use of technology in teaching.

Findings from DUCE have shown that, the college has two computer labs, one in the faculty of education with approximately 10 working computers and the other in the faculty of science with approximately 20 working computers. In total there are 30 computers for 3500 students. Similarly there is one computer for the college staffs in each department with about 15 members of staff.

Thus, the computer to student ratio is 1:117 and computer to staff ratio is 1:15. Computer labs are mostly open when there is an ICT related class which requires the use of computer. There is also one laptop and one projector in each faculty with over 60 academic staffs. In addition, the college has only one television set to facilitate students learning. Overall, the college gets a very low internet bandwidth which makes it difficult for most synchronous communication and access to some learning sites that requires high bandwidth such as YouTube.

While the School of Education at Makerere University has about 91 computers and 336 data points for accessing the Internet, most of these are located in a lockable computer laboratory and information kiosks which are manned by laboratory attendants leading to limited hours of access. This situation is found to affect the ICT use among instructors and pre-service teachers. Pre-service teachers at the school of education in Makerere urged the university administration to stop protecting internet like gold. Arguing that the process where computers are kept under a lock and key limits students' opportunity to practice the use of computers to prepare lessons and search teaching materials. One of the respondents from Makerere University noted: "I have not learnt many skills because of limited practice, I do not own a computer yet the laboratory is rarely open when I am free…".

4 Discussion

Findings from this study revealed a limited technological knowledge among pre-service teachers and lecturers, and limited ability to integrate technology,

pedagogy and content, thus poor technological pedagogical content knowledge (TPACK) in both DUCE and Makerere University. Although pre-service teachers had the basic ICT knowledge, they could not integrate ICT with content and pedagogy. Pre-service teachers had all the theoretical knowledge of ICT and its integration in teaching but had not experienced the way it works in a real context.

The observed incompetency among pre-service teachers in technology and its integration with pedagogy and content was attributed to ill-structure and components of ICT and pedagogical courses offered at the college, shortage of technological tools and instructors' incompetency in using ICT in teaching.

Both Makerere University and DUCE were reported to offer courses on methodology for teaching different disciplines (Physics, Chemistry, Biology, Mathematics etc), also a course on ICT in Science and Mathematics education. However, these courses are taught separately, there is no opportunity for a learner to experience the combination of ICT, pedagogy and science subjects. Pre-service teachers at DUCE miss the opportunity to learn and practice the integration of technology pedagogy and content also they miss an exemplary technology integrated lesson because their lecturers are not using technology in teaching (cf. Beyerbach et al, 2001; LeBaron et al, 2009). According to LeBaron et al (2009) and UNESCO (2008a), the impact of what pre-service teachers learned from the college depends on the extent they learned with technology. Since there were limited opportunities for pre-service teachers to experience learning with technology, they could not make it explicitly how competent are they in using technology to teach. Beyerbach et al (2005) propose for the presence of a model in which pre-service teachers can follow in their endeavour to develop technology integration competencies.

One of the major findings of this study was that, the conceptualisation of ICTs by the lecturers in the School of Education at the University of Makerere was simply an add-on to the normal teacher-centred strategies, whereas at DUCE ICT was conceptualised as the tool for administration purposes. Bétrancourt (2007,cited by Enochsson & Rizza,2009) points out that, despite the emphasis put on the use of ICT in order to support an active pedagogy such as socio-constructivism, the majority of the ICT tools currently available in institutions, indeed, simply support traditional transfer pedagogy hence limiting the use of ICT to presentations (documents) or evaluations (quizzes). In fact, Fuller (2003,cited in Selwyn2007), further argues that, by maintaining a material-semiotic infrastructure of business, many technology training environments like Blackboard and PowerPoint demand and dictate an already predetermined hierarchical and linear modes of technology use, premised on presentation and one- way distribution of information. It might therefore not be strange that, about 62.5% of the respondents mentioned "the use of ICTs in knowledge delivery" as their definition for integration of ICTs in education.

When the pre-service teachers were asked as to whether the use of ICTs by their lecturers had been of help to overcome their ICT related challenges, about 51.7%, felt they had been assisted while more than 48.3% felt they had not.

The pre-service teachers were further asked to justify how they had been helped, and approximately 55.5% of pre-service teachers mentioned acquisition of information, retrieval skills from the internet, while about 20% mentioned acquisition of technical skills especially the use of the Overhead projector (OHP). Of those who felt they had not been assisted, 64% mentioned limited use of ICTs by the Lecturers. Lecturers themselves also acknowledged that they have been using these ICT tools quite rarely to support teaching and learning process. Some pre-service teachers made comments like:

"Our Lecturers are still traditionalistic..."

"Those who use ICTs do so very fast, and so we never get to master anything..."

"…more skills guiding students on how to use ICTs should be given…"

These findings seem to suggest that, while some lecturers may be making an effort to integrate ICTs in their teaching; their approach is not well received by the pre-service teachers and does not seem to model the much-desired transformation in learning with and through technologies.

Further research about this study using more qualitative methods involving students at various stages of their pre-service teacher training may be needed. Such a study should aim at the development of models on successful strategies for using the most affordable ICTs to change pedagogical practices using case studies in pre-service teacher training in the two Colleges.

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Attitudes of Nigerian Students and Teachers towards the Teaching Profession

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Abstract. This study investigated the attitude of students and student-teachers towards the teaching profession in Minna, Niger State. A fifteen item questionnaire and a structured interview schedule were used to collect data from a sample of 250 respondents who were randomly selected from public and private schools within the Minna metropolis. The data collected were analysed using frequency counts, percentages and means. The results revealed that participants held a positive attitude towards the teaching profession but at different levels of significance. The implication of the findings for school administration is that the attitude of students and student-teachers towards the teaching profession is a reflection of the attitudes of school personnel towards their career.

Keywords: Teacher training; Career guidance; School administration

1 Introduction

The choice of profession is very vital to parents as well as to their children. Every normal child thinks of what to do for survival and how to make a meaningful contribution to the society. What children will be when they grow up has often been a matter of intense interest to parents and manpower planners (Ipaye, 1986). In the same way, it is a well known fact that teachers are the key factors in education system and that their subject knowledge has an influence on students' learning in the classroom settings. In addition to the subject knowledge of teachers, the issues belonging to the teacher's personality and behaviour are significant contributors to the teaching and learning process for any discipline. Due to this fact, many researchers have been paying attention to determine teachers' attitudes and self-efficacy towards the subject and to find a relationship between those psychological concepts and certain variables (Abubakar, 2006; Mkpa, 1987; Moses, 2010; Danladi, 2010).

However, recognising that teachers' attitudes towards teaching have an effect on their classroom performance, attitudes of students and student-teachers towards teaching profession was investigated in this study.

Akomolafe (2003) pointed out that the individual's vocation or career is one of the most aspects of human endeavour because it determines a lot of things in human existence. Akomolafe further contended that true joy, happiness and satisfaction are linked to proper choice of profession. He also posited that emotional and marital stability could be enhanced by the type of occupation one engages in. In the same vein, Ikeotuonye et al (1990) stated that choice of profession is also known to influence almost every aspect of life-social class, place of living, dress, and hours of work at home indirectly, it affects an individual's attitudes and opinion, his goals and values including the way he feels about education, his outlook on life and politics. From this opinion, one can rightly say that one's profession affects so much of one's personality and life expectancy.

On a more general note, profession falls on a continuum. At one end of the continuum are high status profession privileges that are accorded to such vocations in the society. Professions in this group include law, medicine, architecture and engineering. At the other end of the continuum are low rated professions such as teaching though lowly-rated, teaching remains a unique and dynamic profession because education is a veritable tool for the building and sustenance of any nation. Musgrave (1982) stated that in many African nations it is assumed that many persons enter teaching because teaching is viewed only as a ladder through which they can climb onto other professions.

It is on this premise that the present study was conceived given the current attitude of the Nigerian society towards teaching as a profession. Generally, there is a dearth of research in the area of students and student-teachers' attitude to the teaching profession. Students are the largest and most crucial input of a school and, therefore, represent a fundamental task area of the school administrator. The services to be rendered to students should come first in the planning of a school system. This is because schools are set up for students rather than teachers, parents or educational administrators. Without students there would be no schools even if there are ample teachers and school managers (Ukeje et al, 1992; Ajayi, 2003; Abubakar, 2006).

To accomplish the goals of educational system, people with the needed skills and abilities (teachers) must be trained, employed and motivated to perform. Incidentally, job seekers desire to be employed as teachers but they do not want to identify with the teaching profession as qualified teachers. It seems that people take the teaching profession as a dump-field where a job seeker can just walk in and receive salaries until he or she can find the job he or she is looking for or get something better (Lenhart, 1999; Bello, 2007; Corneluis et al, 2007).

This attitude has affected teaching as profession. There is need for a study in this area to provide empirical data that will guide educational administrators in raising the value of the teaching profession and thereby attract the right kind and quality of teachers to our schools. Taking the case of Niger State (Nigeria), therefore, this study undertook to assess the attitudes of student-teachers and secondary school students towards the teaching profession and the implications of these attitudes for school administration. Specifically, the study was motivated by a desire to understand why school leavers prefer to teach without training as teachers? And why they accept to teach but look down on teaching as profession? These questions point to the perception of school leavers as far as teaching as a profession is concerned. Therefore, the study delved into the perceptions and beliefs that students hold about the teaching profession and the attitudes of student-teachers towards the teaching profession. It undertook to respond to three research questions: 1) what are the attitudes of secondary school students towards the teaching profession? 2) What are the attitudes of student-teachers towards the teaching profession? 3) What are the implications of students' attitude towards the teaching profession?

2 Methodology

2.1 Design

The design of this study was Descriptive Survey. It was a survey research with the aim to collect data from one group to describe some characteristics of the group (Burbules and Densmore, 1991).

2.2 Population and Sample

The study targeted all students and teachers in secondary schools and student-teachers in the College of Education, Minna, Niger State. The research involved a total of one hundred and fifty (150) secondary school students and one hundred (100) student-teachers randomly drawn from five (5) secondary schools in Minna zone of Niger State. The five (5) secondary schools were chosen based on age of school, experience and qualification of staff, population and comprehensive nature of the schools. It is believed that the chosen schools are representative of secondary schools in Niger State. Stratified random sampling was applied in the choice of schools.

2.3 Instrumentation

The major instrument used for this study was a researcher designed 15 items "Teaching Attitude Scale" (TAS). A five point Likert type response (Strongly Agree (SA), Strongly Disagree (SD), Undecided (U), Agree (A), and Disagree (D) was used. The questionnaire was pilot-tested to test the question items. The scores awarded were correlated using Spearman Rank Order coefficient of correlation. The Split-half reliability coefficient was found to be 0.84, 0.89, 0.90 and 0.94 respectively for the sub-scales tested. Structured interview schedule (consisting same fifteen (15) items) was developed also to elicit more responses on attitude towards the teaching profession.

2.4 Data Analysis

The scores obtained from the use of the instruments were analysed using frequency, simple percentages and mean scores. For the performance level test, respondents indicated their views by choosing one of the following: 'Strongly Agree', 'Agree', 'Undecided', 'Strongly Disagree' and 'Disagree'.

The frequencies were grouped into two parts, indicating either agreement or disagreement. Any response under 'Strongly Agree' was accepted as agreeing with a stated point of view, but 'Strongly Disagree' and 'Disagree' indicating disagreement over the issue raised in the questionnaire. 'Undecided' was neutral. The respondents' frequencies were converted to percentages.

A higher percentage would indicate positive performance. However, to arrive at a decision level, the mean of the total percentages under each item on a scale was found. 50% was arbitrary chosen as the average or neutral point. The researcher considers 50% as adequate, because, it is half of 100% which is the ideal standard.

Any mean percentage above 50% would indicate positive attitude while those below 50% would indicate negative attitude. The concept of percentages is useful, because, it enables the layman to see at glance the relationship between scores.

3 Findings and Discussion

The findings were that majority (95%) of the respondents "Agreed" that the teaching profession is a 'ladder' to other professions and that teachers are not sufficiently remunerated (81%). However, majority of the respondents were more positive about the other attributes of the teaching profession investigated (Table 1).

Table 1: Attitudes towards Teaching Profession

	Agree		Disagree		Total	
	Count	%	Count	%	Count	%
Teaching profession is a *ladder* to other professions	232	95	12	5	244	100
Students enter teaching as a resort	107	43	140	57	247	100
Student seem to feel ashamed to be teachers	70	29	169	71	239	100
Teaching profession is not sufficiently remunerated	202	81	47	19	249	100
Teaching profession is not sufficiently attractive to students	90	37	154	63	244	100
Teaching profession is more accessible than other occupations	98	41	140	59	238	100
Too much of teacher's work has to be in-door	158	65	86	35	244	100
Teaching is a noble profession	180	75	60	25	240	100
I would like to read course(s) related to teaching	230	92	20	8	250	100
Teachers are good trainers of other professionals	120	52	110	48	230	100
I like teachers because they are masters of knowledge	219	88	30	12	249	100
I like teaching because it gives one more time to relax	169	68	80	32	249	100
I like teaching because teachers produce good citizens	202	85	36	15	238	100
Teaching helps one think logically	254	74	90	26	344	100

Table 1 shows that 250 respondents indicated their responses as strongly agreed, agreed, undecided, strongly disagree and disagree. For instance, analysis on table 1 shows that 120 of the respondents (48%) strongly agreed and 112 (44.8%) simply agreed with the statement that teaching profession is a ladder to climb into other professions while 12 respondents (4.8%) simply disagreed and none strongly disagreed. The mean response (point value) of 92.8% indicated agreement with the statement.

Furthermore, responses of the students to the second item on the table revealed that 90 (36%) simply disagreed that students enter teaching as a resort while 50 (20%) strongly disagreed. On the other hand, 38 (15.2%) strongly agreed while 69 (27.6%) simply agreed with the statement. The higher mean response of the respondents to item 2 was 140 (56%) which shows acceptance.

Data presented in respect of item 1-15 indicated that the majority were in agreement with the favourable statement concerning the teaching profession. In other words, most of the students and student-teachers exhibited positive attitude towards teaching profession.

The findings show that senior secondary school students and student teachers sampled exhibited a positive attitude towards the teaching profession. This finding tends to draw support from other studies (Ehiametalor, 1985, Musaazi, 1982) which concluded that most individuals recognise the rights of teachers and their roles in educational development. However, other studies such as (Nwaogu, 1999; Ezeanolue, 1990; Musgrave, 2002 and Bello, 2007) found out

that most African societies exhibit a negative attitude towards the teaching profession. The possible rational for students to have positive attitudes towards the teaching profession may be due to the recent professionalisation of teaching in Nigeria. The establishment of Teaching Registration Council (TRC) (a regulatory body that ensures that teachers behave well as professionals who uphold the ethics of their profession) could have contributed a lot towards improving the image of the teaching profession and subsequently the attitude towards teaching. Registration with TRC makes it mandatory that teachers acquire specialised knowledge and intensive academic preparation which allows the teacher to display business-like qualities that characterise members of a credible profession (Goodlad, 1990; Chike-Okoli, 2007; Yerima, 2010).

Given the improved standard of living in the ambient environment, it is likely that the self-esteem and self-concept of individual teachers might be such that endears personal confidence and fulfilment in the teachers. The positive attitude of the teachers might be the influencing factor that occasioned the shift in the attitude of students towards teaching. The teachers scored a mean of 38.6 out of 50 on the question concerning their attitude towards the teaching profession. This is a high means score, indicating that they regarded the profession highly. Therefore, the study implies that:

1. Teaching was perceived to be a noble profession that is meaningful, worthwhile and satisfying. Findings indicate that the students sampled were clear that good citizens are produced by teachers, teachers are good trainers of other professionals and that, teaching helps one think logically.
2. Teaching was perceived as interesting, enjoyable, exciting and challenging because it has to do with communicating with and relating to people. The nature of teaching in itself that produces good citizens and other professional was a good enough reason for some of them to want to teach.
3. Teachers needed to have certain qualities, attitudes and depositions before they could become ‘good’ teachers. These included commitment, enthusiasm, interest and professionalism besides many others. As these were unsolicited comments, they showed that many of the participants realised the importance of teachers having the right values and attitudes. The implication therefore is that teachers would also need to be equipped with many different skills and much pedagogical knowledge in order to teach successfully and effectively, and to meet instructional challenges posed by the many educational changes and new initiatives.

4 Conclusion and Recommendations

This is a report on the perception and beliefs of teaching held by a representative, but randomly selected group of fifty ‘beginning’ student

teachers. It was shown that they had generally positive perceptions of teaching and held certain expectations of teaching as a job. The findings gave insights to how the participants viewed their career choice, and provided some useful baseline data for the developing of an enhanced initial teacher preparation programme that could address some of the major issues surfaced in this study.

Therefore, efforts should be made to encourage students to choose a career in teaching. They should be made to understand that careers in teaching are attractive, prestigious and noble. Parents, guardians and other concerned individuals have a lot to do in this regards. Workshops and seminars need to be organised on the essence of teaching profession in overall educational development in the country.

Teachers need to conduct themselves in manner befitting their professional ethics and maintain highest standard so as to portray a good image of the profession both to the students and the entire society.

As it was mentioned before, teachers are one of the most important factors in the teaching and learning process. Their attitudes towards the subject, school, and teaching have an influence on student's learning and attitudes towards discipline, school and career choice. That's why conducting such studies to determine the teachers' personality traits or perceptions about teaching and learning are highly recommended for future researchers.

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Contribution of Open and Distance Learning Programmes to Human Capacity Development: the Case of the Primary Education Programme of the National Open University of Nigeria

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Abstract. Though open and distance learning (ODL) has gained prominence in many countries, there are widespread fears for the quality of ODL programmes. Taking the case of the Bachelor of Arts in Primary Education programme of the National Open University of Nigeria (NOUN), this paper examined the effectiveness of these programmes in their efforts to contribute to the development of human capacity. Noting the scepticism society holds against ODL programmes, the study sought to establish the comparability of the competence of ODL and conventional face-to-face programme finalists. The findings were that there is no significant difference in the competence of the two groups. Therefore, it is concluded that the public should rest assured of the credibility of ODL as an avenue for the development of human capacity and take advantage of ODL programmes.

Keywords: Programme evaluation; ODL; Human capacity development

1 Introduction

It is well recognised that education is an instrument of social and economic transformation. The open and distance learning (ODL) system, as an approach to the delivery of education, has gained much prominence all over the world. In terms of widening access to learning, the system has made remarkable progress especially in the field of higher education. It is incontestable that the ODL system has continued to open up access to education for millions of people in Africa and elsewhere who otherwise would not have had the opportunity particularly those who could not gain access to university education in the conventional system due to varied reasons of socio-economic and geographical factors. The emergence of ODL has marked a turning point in the provision of

educational opportunities across the globe. According to UNESCO (2002), 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 the development of internet based information technologies.

Despite the ODL success story, the concern being expressed among leaders and experts in ODL is that of quality of output (Daniels, 2010). Most ODL institutions in their bid to achieve mega status tend to focus mainly on access (quantity) and in the process the issue of quality of output/ human capacity development, which is critical, has been relegated to the background. Daniels (2010) echoed this concern in his opening speech at the 6th Pan-Commonwealth Forum on Open Learning in India.

Existence of a large pool of human population does not automatically translate to a productive resource. Human beings become productive resource only when they are able to contribute meaningfully to productive economic activities. As argued by Omolewa (2008), size should not be a driving force in ODL. What is important according to him is to ensure that education is able to adequately prepare learners for the demands of the global learning society of the twenty first century. Thus, providing access alone cannot be considered a real contribution unless it translates into success. Success as used in this context is not just completing a certifiable study programme but completion of a study programme that results into the enhancement of human wellbeing, upgrading of competencies and skills that enable the learners to use their new skills and knowledge for the development of themselves and their communities. Daniels (2010) has charged ODL practitioners to judge their efforts not only by enrolment figure but also by success of their learners. Floyd (2008) argues that ODL can meet the quality challenge and can do so in ways that produce highest quality outcomes than are easily achieved by other methodologies. The key is to balance access with quality.

If Africa, and indeed Nigeria, is to compete in the global knowledge economy, there is need for ODL providers to move beyond the customary focus on access to ensure that the opportunities offered by ODL prepare learners for success. The only way to achieve this aim is to subject ODL programmes to continual evaluation particularly in the light of public perception of distance education. Evaluation is an essential element of successful distance education programmes. Therefore, the focus of the study is justified on the need to assess ODL contribution to human capacity development.

1.1 ODL and Human Capacity Development

Any effort to increase human knowledge, enhance skills and productivity and stimulate resourcefulness of individuals is an effort in human capacity

development According to Akingbade (2007), human capacity development is the human capability and productivity engendered through knowledge and skills acquired from education, training and experience; and facilitated by an enabling environment. It is the intangible factor of the production process that contributes to human intellect, skills and competencies in the production and provision of goods and services. Human capacity development is about supporting and investing in people, using a variety of means, including education, training, coaching, mentoring, internships, capacity building programmes, organisational development and human resource management. It, therefore, implies building an appropriate balance and critical mass of human resource base and providing an enabling environment for all individuals to be fully engaged and contribute to development efforts. According to Adamu (2002), human capital formation transcends mere acquisition of intellectual ability through formal education system towards the transformation of the total man to enhance his productivity. He argued that human capital investment is an indispensable component of the development process and a force that can help in tackling inequalities and poverty in any nation.

Anuwar Ali (2008) notes that the role of universities in human capital development can be seen in two ways; first, to supply the skills for national economies; and secondly, on the demand side, to increase the drive within the national population for a process of "up-skilling" by opening doors to greater access in higher education. ODL has been, and continues to be a viable way through which professionals may enhance their professional competencies while continuing to work, thus earning a living while learning (Braimoh, 2010). Therefore, ODL is seen as enabling human capacity development.

1.2 Statement of the Problem

Over the years, ODL tertiary institutions particularly in developing countries have faced a number of challenges. According to Braimoh (2010), the most contentious of these challenges has been the poor public perception of the quality of ODL programmes. A common perception is that distance learning is not as effective as the traditional (face-to-face) education (Harrison, 2001 as cited in Adeoye and Salawu, 2010). Consequently, the acceptability of ODL certificates by labour market is affected because of fear of quality compromise. Although public perception may be un-informed and misguided, it is capable of distorting the intended gains of distance learning. Therefore, there is an urgent need to address the challenge otherwise ODL will continue to be viewed as an inferior alternative, good enough for failures and one that only produces mediocre graduates (Mboya, 2008; 99). On the other hand, empirical evidence abound indicating no significant difference in the quality of education received through distance learning versus the classroom (Russell, 2002; Sukati, et al.,

2010). However, there is dearth of research on ODL and human capacity development with focus on learners of the National Open University of Nigeria This study is therefore a contribution to fill the existing knowledge gap.

1.3 B.A. (Ed) Primary Education Programme of NOUN

The National Open University of Nigeria (NOUN) is a single mode university that operates an exclusively ODL mode of education. With a student population of 65,000 as at 2011 academic year, NOUN offers 128 academic programmes and over 1,000 courses across five Schools (School of Arts and Social Sciences, School of Education, School of Law, School of Management Sciences, School of Science and Technology) and one academic Centre (Centre for Lifelong Learning and Workplace Training).

The B.A. Primary Education Programme was launched in the School of Education in the 2003/2004 academic year. The programme provides access to diverse learners such as primary school teachers who aspire to upgrade their skills and move upward in their career paths, acquire a Bachelor's degree in Primary Education while on their job, as well as non-teaching members of the population, who are interested in finding careers in teaching. The programme is aimed at the development of professional skills and competence required by teachers for effective teaching-learning process at the primary level. The specific objectives of the programme, as highlighted in NOUN Students Handbook (2008/2009), are to enable practicing teachers to:

- Demonstrate practical applications of the theory and practice of primary education in classroom situations
- Demonstrate skill in care giving
- Demonstrate competence in classroom management

The programme delivery system includes the multi-media approach: self-instructional printed materials, audio visual tapes, CD-ROMs, radio broadcasts, tutorial sessions, practical work, projects, assignments, counselling sessions.

The programme is structured to run for a minimum of four years and maximum of eight years for students starting at 100 level (i.e. students without the Nigeria Certificate in Education (NCE) qualification which is a teaching qualification awarded after three-year post-secondary education) or minimum of three years and maximum of six years for students starting at 200 level (i.e. students with NCE qualification). To be eligible for the award of the B.A. Ed. in Primary Education, a student must pass a minimum of 120 and 90 credit units for the 4 year- and 3 year- degree programmes respectively.

The choice of NOUN B. A. (Ed) Primary Education programme as case study was hinged on several factors. One, as the only single mode ODL

University in Nigeria and West Africa Sub-region, NOUN occupies a very strategic position in Nigeria's education landscape. Second, primary education as the foundational level of the educational system is of paramount importance to the attainment of national development. It is the educational level at which societal members acquire their basic reading, writing and numeracy skills, which are some of the indices used internationally to rate the development levels of nation states. Moreover, a substantial proportion of students who enrol in the B.A. (Ed) programme are in-service primary school teachers, meaning that what affects the programme automatically affects them and their work.

1.4 Objectives of the Study

The broad aim of the study was to assess the contribution of ODL to human capacity development in Nigeria. The specific objectives of the study were to:

- Find out the level of teaching competence among in-service primary school teachers who enrolled in the Primary Education degree programme of NOUN
- Find out the level of self-esteem among in-service primary school teachers who enrolled in Primary Education degree programme of NOUN
- Compare the teaching competence between the in-service primary school teachers who enrolled in Primary Education degree programme of NOUN and their counterpart pursuing similar programme through the conventional face-to-face mode
- Compare the level of self-esteem between the in-service primary school teachers who enrolled in Primary Education degree programme of NOUN and their counterpart pursuing similar programme through the conventional face-to-face mode

1.5 Research Questions

The following questions were raised:

- What is the level of teaching competence among in-service primary school teachers who enrolled in Primary Education degree programme of NOUN?
- What is the level of self-esteem among in-service primary school teachers who enrolled in Primary Education degree programme of NOUN?
- What difference is there in teaching competence between the in-service primary school teachers pursuing Primary Education degree

programme of NOUN and their counterpart pursuing similar programme through the conventional face-to-face mode?

- How do primary school teachers who enrolled in Primary Education degree programme of NOUN compare in self-esteem with their counterpart pursuing similar programme through the conventional face-to-face mode?

1.6 Research Hypotheses

The following null hypotheses were formulated to guide the investigation:
Ho1: There is no significant difference between the teaching competence of the in-service primary school teachers who enrolled in Primary Education degree programme of NOUN and their counterpart pursuing similar programme through the conventional method
Ho2: There is no significant difference in the level of self-esteem between the in-service primary school teachers who enrolled in Primary Education programme of NOUN and their counterpart pursuing similar programme through the conventional method

2 Methodology

2.1 Research Design

A combination of descriptive and ex post facto research design was adopted. Descriptive method was used to ascertain the current status of the level of professional development among the primary school teachers who enrolled in NOUN Primary Education programme. The ex post facto method was chosen because the situation studied was already in existence at the time the research was carried out. The method allowed selection of two groups of subjects on the basis of pre-existing independent variables for comparison on measures of the respective dependent variables.

2.2 Population

The study was conducted in Lagos State, Nigeria. The population of the study involved all primary school teachers in Lagos State public primary schools. This includes teachers pursuing the B.A. (Ed) Primary Education programme of NOUN and teachers pursuing similar programme from conventional university in face-to-face mode.

2.3 Sample and Sampling Technique

NOUN's data records showed a total of 1,115 students enrolled in Primary Education programme at various levels as at 2011 academic year out of which 212 were in final year of study. The breakdown further showed that of the 212, a total of 107 students registered under Lagos Study Centre. From this, a sample size of 60 was drawn to form the NOUN group. Purposive sampling was applied to ensure that those selected constituted the primary school teachers from public schools. Lagos Study Centre was purposely selected because of its peculiar characteristics serving about 50% of the university's student population. The choice of final year students was based on the fact that they have spent sometime in the programme and so in a position to ascertain programme impact (the institution was yet to graduate its first set of degree students at the time of the study). Table 1 summarises the sampling composition.

Table 1: Composition of primary school teachers who enrolled in NOUN Primary Education degree programme by study centre and year of study

Year of study	NOUN Study centres		Total
	Lagos centre	Other centres	
Final year students	107*	105	212
Students in other levels	475	428	903
Total	582	533	1,115

*107, from which 60 NOUN participants were drawn

In line with the design of the study a comparable group was sampled. Consequently, from a pool of conventional universities that run Primary Education programme, the Lagos State University (LASU) was selected for convenience purpose. The University runs sandwich (long vacation) Primary Education programme through face-to-face course delivery mode, hence justified for inclusion to serve the purpose of the study. Thus, from the total sandwich student teachers in final year, 40 were drawn and referred to as "non-NOUN group". To control the influence of extraneous variables, purposive sampling was used in the selection such that both groups (NOUN and non-NOUN) were matched and equated on relevant characteristics - years of teaching experience, age, sex, and educational qualification. Baseline qualification was the Nigeria Certificate in Education (NCE), because this is the minimum teaching qualification for teaching in Nigerian primary schools (National Policy on Education, 2004).

2.4 Research Instruments

Two sets of quantitative instruments were used to collect data - Teacher Competency Measure (TCM) and Rosenberg Self-Esteem Scale (RSES). The TCM was a 31-item structured questionnaire designed to measure respondents' level of teaching competency. It was developed by the researcher based on a set of competencies required for effective teaching derived from literature on teacher education. These components include: lesson planning, preparation and presentation, classroom management, professional responsibilities and teacher's personality. The questionnaire was divided into two sections. Section A sought necessary background information. Section B contained 24 items divided into six sub-sections with each set of items measuring different aspects of the respondents' competency. Each item was assigned a 3-point response scale of high, average, low with corresponding values of 3,2, and 1 respectively. The instrument was content validated by experts in the field of education evaluation, while the Cronbach's alpha method was used to test for the internal consistency with a coefficient value of 0.87 obtained.

Rosenberg Self-Esteem Scale (RSES) was a 10-item standardised inventory developed by Rosenberg (1989). Rosenberg considered self-esteem a unipolar concept that reflects the person's general experience about his/her personal abilities and evaluation of his/her personal characteristics. It was adopted in this study to measure respondents' level of self-esteem. Each item was placed on a 4-point response scale of strongly agree, agree, disagree, strongly disagree with corresponding values of 4,3,2, and 1 respectively. Negative items were reverse-scored. The scale is reported to have high reliability coefficients said to be in the range of .82 to .88, and Cronbach's alpha for various samples in the range of .77 to .88 (http://www.bsos.umd.edu/socy/research/rosenberg.htm).

In an attempt to obtain qualitative data to complement responses from the questionnaires so as to gain a deeper insight on the subject of enquiry, personal observation as well as semi-structured interview schedule were included as additional input. Thus, 10 subjects were randomly selected from the sampled subjects as participants. With observation and interview guides developed, observation was conducted on participants' lesson note, physical appearance and classroom environment. The observation guide had three parts. Part A contained detail list of the five major parts that constitute an ideal lesson plan with which the researcher assessed the appropriateness/ inappropriateness of lesson plan prepared by participants on a specific topic in Social Studies - one of the compulsory subjects at the primary level. Section B assessed the physical appearance –neatness, composure. Section C assessed classroom environment – presence/absence of instructional materials, and sitting arrangement. Individual Interview schedule was held. The interview guide contained six open-ended question items designed to elicit information on how participants benefited

from programme intervention, impact of the programme on them as teachers, further education aspiration, willingness to recommend the programme to other colleagues, and challenges encountered. The various mixed methods were intended to capture different facets of the study.

2.5 Procedure

The process of data collection started with identification and selection of NOUN and non-NOUN subjects through the process of matching. The questionnaires were personally administered face to face to all NOUN subjects (N=60) during tutorial sessions at the Lagos Study Centre. Thereafter, observation was conducted with selected sample (N=10) at their respective schools followed by one-on-one interview (N=10). Non-NOUN subjects (N=40) completed the questionnaires during regular classes at the Ojo campus of the LASU. This was followed by observation with selected sample (N=10) in their places of work, and then followed by one-on-one interview (N=10). In order to eliminate interaction effect and ensure internal validity, the two groups were selected from different schools. In all, 27 public primary schools were visited to collect data with the help of three trained research assistants. The data collection process lasted four weeks.

2.6 Analysis

The quantitative data were analysed using basic descriptive statistics such as the mean and frequency counts for answering the research questions. The mean scores were computed by multiplying the frequencies of response with respective scale values. The obtained value was then divided by the total number of respondents. The obtained value was judged for significance or non-significance against a cut-off point which was obtained by summing the scale values and dividing by number of scale points. The t-test for independent samples was used for the hypotheses to test the mean difference between the two groups in the variables of investigation, at the 0.05 level of significance. Any item with t-calculated value greater than table value was rejected. If the reverse is the case it was accepted for that item. Data collected from observation and interviews were subjected to content analysis for easy interpretation.

3 Findings

3.1 Question One

To answer the question, the responses to items on the Teacher Competency Measure were analysed with the use of frequencies and weighted mean scores.

The mean scores were computed by multiplying the frequencies of response with respective scale values (3, 2, 1). The obtained value was then divided by total number of respondents. The cut-off point for judging the significance /non-significance of scores was set at 2.0. This was obtained by adding the scale values and dividing by 3 (i.e. 3+ 2+ 1= 6/3=2). Hence, any item with a mean rating of 2.0 and above was considered high while any item with a mean rating below 2.0 was regarded low. Since the 24 items were divided into six sub-sections each measuring different competency variable, scores obtained on each sub-section were summed and averaged to yield scores on each variable. The result is presented in Table 2.

Table 2: Teaching Competence among Teachers Enrolled in NOUN

Competency	Response categories			Total	Mean score	Cut-off point
	High	Average	Low			
Lesson planning	72	40	16	128	2.1	2.00
Lesson preparation	57	48	17	122	2.0	2.00
Lesson presentation	66	46	15	127	2.1	2.00
Classroom management	72	48	12	132	2.2	2.00
Professional responsibility	69	52	11	132	2.2	2.00
Teacher personality	81	46	10	137	2.3	2.00
Average	69.5	46.7	14	129.6	2.15*	2.00

Overall competency mean score = 2.15* (significant)

Table 2 reveals that all the variables put together yielded competency mean rating of 2.15, which was above the cut-off point indicating high level of teaching competency among respondents. A closer look at Table 2 shows that the variables had mean scores ranging from 2.0 to 2.3, which met the cut-off point. Although the mean scores on each of the variables were fairly high, on a closer look teacher personality had the highest mean score while lesson preparation had the least score. It is evident from Table 2 that the level of teaching competency among primary school teachers enrolled in Primary Education degree programme of NOUN appear fairly high as indicated by overall mean rating of 2.15.

3.2 Question 2

To answer the question, the responses to items on the Rosenberg Self-Esteem Scale were analysed with the use of frequencies and weighted mean scores. As a one-dimensional scale, mean scores on self-esteem were computed by multiplying the frequencies of response with respective scale values (4, 3, 2, and 1) after reverse-scoring all negatively worded items (2, 5, 6, 8, and 9). The

obtained value was then divided by total number of respondents. The maximum possible score was 40 and the minimum 10, higher scores indicating higher self-esteem. The cut-off point was obtained by summing the values 10, 20, 30, 40 and dividing by 4 (40+30+20+10 =100/4=25). Hence, a mean score above 25 is indicative of high self-esteem, while mean score below 25 suggests low self-esteem. The result is presented in Table 3.

Table 3: Self-esteem among Teachers Enrolled in NOUN

Items	SA	A	D	SD	Total	Mean score
On the whole, I am satisfied with myself	100	84	10	2	196	3.26
At times, I think am no good at all	7	10	93	68	178	2.96
I feel that I have a number of good qualities	84	90	12	3	189	3.15
I am able to do things as well as most other people	104	78	14	1	197	3.28
I feel I do not have much to be proud of	5	20	96	52	173	2.88
I certainly feel useless at times	1	6	81	116	204	3.4
I feel that my worth is equal to that of others	72	54	30	9	165	2.75
I wish I could have more respect for myself	6	14	81	84	185	3.08
All in all, I am inclined to feel that I am a failure	3	2	78	120	203	3.38
I take a positive attitude towards myself	92	81	6	2	181	3.01
Total					1871	31.2*

Key: SA = Strongly agree, A = Agree, D = Disagree, SD = Strongly Disagree
31.2* Significant

As observed in Table 3, the self-esteem measure yielded a mean rating of 31.2, which was more than the cut-off point of 25 indicating that the level of self-esteem was high. This implies that primary school teachers pursuing primary education programme of NOUN reported high level of self-esteem.

3.3 Question 3

Table 4: Performance of NOUN and Non-NOUN Teachers (cut off point 2.00, N=100**)**

Competence	NOUN group		Non-NOUN group	
	Mean score	Rank	Mean score	Rank
Lesson planning	2.1	3rd	2.1	3rd
Lesson preparation	2.0	4th	2.2	2nd
Lesson presentation	2.1	3rd	2.4	1st
Classroom management	2.2	2nd	2.2	2nd
Professional responsibility	2.2	2nd	2.0	4th
Teacher personality	2.3	1st	2.2	2nd

The analysis presented in Table 4 reveals that for NOUN group all the variables analysed met the cut-off point of 2.0. For non-NOUN group the trend appears

the same as all the variables met the cut-off point, indicating high level of teaching competency. The ranking of the scores shows that NOUN-group ranked first in teacher personality, followed by professional responsibility with classroom management tied for second place, lesson presentation and lesson planning both of which tied for third position and lastly lesson preparation which ranked fourth. The non-NOUN group ranked first in lesson presentation, followed by lesson preparation with classroom management and teacher personality all three tied for second place. Lesson planning and professional responsibility ranked third and fourth, respectively. From Table 4, it is observed that NOUN group ranked higher than non-NOUN group in teacher personality and professional responsibility, while non-NOUN group ranked higher in lesson preparation and lesson presentation. However, both groups tied in the same ranking position in lesson planning and classroom management. Therefore, it can be said that NOUN group is comparable with non-NOUN group in all aspects of teaching competencies except in lesson preparation and lesson presentation.

3.4 Question 4

The self-esteem mean score for NOUN group was 31.2, which was more than the cut-off point of 25 indicating that the level of self-esteem was high. That of non-NOUN group was 31.4 which was also more than the cut-off point of 25 indicating the group's level of self-esteem was high. This implies that primary school teachers pursuing Primary Education programme of NOUN are comparable in self-esteem with those of non-NOUN group pursing similar programme through conventional F2F mode.

3.5 Research Hypotheses

Ho1: There is no significant difference between the teaching competence of the in-service primary school teachers who enrolled in Primary Education degree programme of NOUN and their counterpart pursuing similar programme through the conventional method. The hypothesis was tested using the t-test for independent samples and computed on each competency variable. The result is presented in Table 5. In Table 5, the calculated t-values of 1.15, 2.31, 25.0, 0.11, 22.2, and 1.02 were obtained for lesson planning, lesson preparation, lesson presentation, classroom management, professional responsibilities and teacher personality, respectively.

Table 5: Difference between Teaching Competence of NOUN and non-NOUN teachers

Competences	Group	Mean	SD	t-cal	t- table	Decision
Lesson planning	NOUN	2.1	0.52	1.15	1.96	Accepted
	Non-NOUN	2.1	0.60			
Lesson preparation	NOUN	2.0	0.51	2.31*	1.96	Rejected
	Non-NOUN	2.2	0.69			
Lesson presentation	NOUN	2.1	0.52	25.0*	1.96	Rejected
	Non-NOUN	2.4	0.72			
Classroom management	NOUN	2.2	0.55	0.11	1.96	Accepted
	Non-NOUN	2.2	0.69			
Professional responsibilities	NOUN	2.2	0.54	22.2*	1.96	Rejected
	Non-NOUN	2.0	0.36			
Teacher personality	NOUN	2.3	0.34	1.02	1.96	Accepted
	Non-NOUN	2.2	0.69			

* = Significant at 0.05 level

A close look at the values in Table 5 shows that three of them were found greater than the critical t- value of 1.96 at 0.05 alpha level which implies rejection of the null hypothesis while three were less than the critical t-value indicating acceptance. Therefore the hypothesis that there was no significant difference between the teaching competence of the student teachers enrolled in Primary Education degree programme of NOUN and those pursuing similar programme through the conventional face-to-face mode was upheld in terms of lesson planning, classroom management, and teacher personality. It was, however, rejected in terms of lesson preparation, lesson presentation in favour of non-NOUN group and professional responsibilities in favour of NOUN group.

Ho2: There is no significant difference in the level of self-esteem between the in-service primary school teachers who enrolled in Primary Education programme of NOUN and their counterpart enrolled in similar programme through the conventional face-to-face mode. A t-test for independent samples was used to test the hypothesis and the result is summarised in Table 6.

Table 6: Difference between Self-esteem of NOUN and non-NOUN groups

Group	N	Mean	SD	Md	df	t-cal	t-table
NOUN	60	31.2	7.05	0.2	98	0.53	1.96
Non-NOUN	40	31.4	6.93				

As indicated in Table 6, NOUN group obtained a mean score of 31.2 while non-NOUN group obtained 31.4, this yielded a mean difference of 0.2 between the groups. A t-test for equality of mean yielded a calculated t-value of 0.53, which was less than the critical t-value of 1.96 at the 0.05 level of significance.

Hence, the null hypothesis was accepted indicating that there was no significant difference in the level of self-esteem between the two groups.

3.6 Qualitative Analysis

Qualitative data obtained via observation revealed that virtually all the lesson notes (95%) prepared by both NOUN and non-NOUN participants conformed to appropriate standards and contained details of the five parts ideal lesson note should have. On physical appearance, there was no obvious difference as the two groups appeared equally neat, wore appropriate dressing and appeared composed. Also, no discernable differences between the two groups in respect of teaching aids found in class and in sitting arrangement. However, very few teaching aids were sighted and mostly charts.

During interviews, NOUN participants reported having benefited from study programme; acquired skills and competences which were absent before they enrolled in the programme, the impact on their teaching performance and enhanced self-confidence to the envy of other teacher colleagues. They reported how these colleagues, having seen the impact, come to them for guidance and advice and also request to borrow their course materials. Majority expressed willingness to enrol in NOUN Masters programme but lamented the long duration of their Bachelor's programme which had dragged endlessly having spent six to seven years for a supposedly three/four year full time programme. This, they said, had caused many of their course mates to drop out. Other teacher colleagues are said to have shown interest to enrol but got discouraged by the length of time it takes to graduate. One female participant had this to say:

> "…I've benefited so much from the programme in terms of my teaching performance. Also, my self-confidence has improved. Even the way I relate with my colleagues has also improved. Some of them come to ask for guidance and even borrow my course materials. Yes, there are challenges but the main snag is the delay in graduation. I've spent six to seven years on the programme without graduation. Many students have dropped out for this reason. I know people who have shown interest to enrol but got discouraged. This is giving the university a bad image"

Interviews with non-NOUN participants yielded positive responses as those of NOUN group but differed in terms of challenges encountered. They reported having achieved a lot from the programme including greater confidence and additional skills that enhanced their job performance. They reported that they were given more responsibilities from their places of work. Two participants stated they were given higher classes to teach. There was a general consensus that the programme had improved their ability to plan and manage the teaching-

learning process including how to better motivate learners and monitor learning progress. On further education aspiration, majority expressed desire for further studies and indicated willingness to recommend the programme to other colleagues who were yet to enrol in degree programme.

4 Discussion

The foregoing provides evidence of the contribution of ODL programme to human capacity development. Evidence yielded by the study reveals that student teachers who enrolled in the Primary Education degree programme of NOUN reported high level of professional competence and enhanced self-esteem, and also found comparable with those of non-NOUN group pursing similar programme through conventional face-to-face mode. This finding is contrary to expectation. The general opinion in the society is that the distance learners are not as good as learners in conventional system (Ken-Maduako, 2011). However, the non-significant difference between NOUN products and non-NOUN products in certain aspects of competencies (lesson planning, classroom management, teacher personality and higher in professional responsibilities) proves otherwise and agrees with the literature on distance education, which claims no difference between distance and conventional learning (Ojokheta, 2011; Russell, 2002; Sukati, et al., 2010). These competencies had been established as the criteria of teaching effectiveness.

One of the most important factors that contributed to the modest success of the Primary Education programme of NOUN may be the quality of its self-instructional materials that it produces and distributes among its students as well as other support systems put in place to help learners. In distance learning, because teachers and students are separated in time and space self-instructional materials are at the centre of learning in order to ensure comparable learning experiences as their counterparts in the conventional setting. These course materials have been highly rated not only by the students but also by the conventional tertiary institutions in Nigeria who see the materials as “hot cake”. As research has consistently shown, well-designed and well-written course modules engender good levels of learning achievement among students and facilitate effective achievement of educational objectives (Etuk, Akpanumoh, Etudor and Ngerebara, 2006). Also, findings from this study, as seen from how the teacher colleagues request to borrow the course materials, point to the same direction. According to Schlenker (2005), the quality that comes out of a process is affected by the quality of what goes in and what happens at every step along the way. This explains why the participants recorded high level of professional competency. The findings are also consistent with that reported in Osunde and Omoruyi (2004), which demonstrated the impact of teacher training programme by distance to teacher job performance. And also

consistent with the study by Umar (2008) which compared results of NTI's NCE (by DLS) graduates with those of conventional colleges of education showing no significant difference in their classroom performance.

5 Conclusion and Recommendations

Arising from the study, the public should be rest assured of the credibility of distance education as avenue to develop human capacity and take advantage of ODL programmes. This will ensure that greater number of citizens have expanded access to quality higher education. Primary Education programme should be recommended to all primary school teachers as a means to upgrade their professional competencies for the benefit and growth of primary education in Nigeria. Effort should be made to assess the programme regularly to ensure its effectiveness and efficiency. Teachers should be exposed to constant training, as this will contribute to improvement of the quality of education at the primary level, which is considered the foundation for sustainable development of any nation. Finally, this study should be replicated for other academic programmes of the National Open University of Nigeria.

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