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A QUEST TO UPGRADE FIRST GENERATION UNIVERSITIES IN NIGERIA TO PRODUCE INNOVATIVE AND ICT –READY HEALTH EDUCATORS

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Abstract

The importance of health education in today's society has been extensively researched and discussed. As professionals of an independent discipline collaborating with other members of the health care team, health educators perform a specific and vital function for which they must be carefully trained. The place of creativity and innovation towards making health educators responsive to societal yearnings is enormous. This article identifies innovation driven competencies required of health educators in the execution of their tasks. It also attempts a thorough critique of the deficiencies of first generation universities in Nigeria towards equipping prospective health education graduates enter the profession able to apply theory to practice. Equipped to be result oriented, innovation driven and poised to surmount the myriads of challenges posed by the uniqueness of this technological advancement. The article also explored critical steps towards re-tooling and re-positioning first generation universities in Nigeria from the student service paradigm to the student development paradigm with the aim of meeting the health information challenges of the Nigerian society. In conclusion, first-generation universities must create new health educational tools and strengthen existing curricula, modules and courses. They must break with tradition and find innovative ways of performing their uniquely valuable functions and exploring all possible means to produce health education graduates that are responsive to societal needs

Key words: Health, Educators, Innovation, Competencies, Development

Introduction

Nigeria is changing rapidly, especially with regards to the free traffic of labour, and these major developments in the country are expected to seriously influence the training of health education teachers in the coming decade. As a consequence of these developments, a comparison of health education programmes followed by a process of mutually attuning of the content of those programme will be necessary. Moreover, research on health education and the university curriculum is getting more and more internationally oriented.

Developing the health status of individuals in any country cannot be separated from the level of health knowledge and education in that country. Education according to Amoo and Onuka (2011) is the most important factor of any developed society; it is also an instrument of change especially in this fast changing world. The primary concern of education is the elevation of human condition and through education, people are enabled to develop their knowledge and skill, adopt new behaviour that will enable survival in any society (Alade, 2004). In a quest to position individuals to take responsibility for their health and that of their community, health education is now a prerequisite for healthy choices.

A summary of some health education definitions indicates that people get educated through experiences irrespective of where they are encountered, or through a process which goes on chiefly in the school and through health products (Igbano, Fadoju, Adio-Moses, 2011). The concept of health education therefore seek to improve personal and community health through information and a well laid out programme that will improve knowledge, enhance attitude and change negative health behaviour.

All over Nigeria, there are strong pleas for the improvement of health education teaching especially at the university level for a further professionalization of health education teachers and raising the status of the teaching profession. Improvement of teaching not only regards the use of different teaching methods but also refers to the necessity of information and communication technologies (ICT) to enhance health education teachers' pedagogical content knowledge. Considering the great similarities of problems in training health education teachers in most first generation universities in Nigeria,

it is obvious; however, that one looks for international solutions instead of local ones. Hence the training of health education teachers tends to become more and more international. This will put new demands on the curricula for the training of health education teachers in Nigeria.

The aim of this paper is to contribute in finding proper answers to these new demands. It therefore offered the opportunity to present a wide range of problems related to the design of new elements in health education curricular and /or to improve those already existing especially in first generation universities in Nigeria. Education and ICT all share a common phenomenon. Both are dynamic in the way they impact man's experience. Advances in information technology have great potential for teaching, learning and research. They offer opportunities to achieve health education.

University education as the pinnacle of learning is therefore saddled with the responsibility to produce high manpower for jumpstarting and sustaining development in the society. Universities are as such, perceived to be well poised to meet the societal challenges of high level manpower development. Human capacity development according to Akpan and Etor (2011) is the art of educating individuals in order to bring out their talents, potentials and innate abilities for the service of the society. It is the process of training or empowering people to improve; competences, innovation, creativity, productivity and specific and general skills.

There are five first generations or traditional universities in Nigeria and they were established between 1948 and 1965, following the recommendation of the Ashby Commission set up by the British Colonial Government to study the necessity of university education for Nigeria. These universities are fully funded by the federal government. They were established primarily to meet a need for qualified personnel in Nigeria and to set basic standards for university education. These universities have continued to play their roles for the production of qualified personnel and the provision of standards, which have helped to guide the subsequent establishments of other generations of universities in Nigeria. These traditional Universities include the University of Nigeria, Nsukka and the University of Ibadan, Ahmadu Bello University Zaria, University of Ife Ile Ife, University of Lagos (US Diplomatic Mission to Nigeria, 2013).

Education, in general, and higher education in particular, are fundamental to the construction of a knowledge economy and society in all nations (Wu, 2005). Indeed Nigerian universities were established to fulfill a statutory function of educating and training higher manpower to provide professional, technical and other socio-economic services for the development of the nation. Yet the potential of higher education systems in Nigeria to fulfill this responsibility is frequently thwarted by long-standing problems of finance, efficiency, equity, quality and governance. Universities in Nigeria have also failed to meet the yearnings of the citizenry especially in relation to manpower development over the years. This is as a result of inadequate resources provision, poor policy execution, poor quality learning, incessant closure of federal universities, inadequate funding of university programmes and other problems too numerous to mention (Moronkola, Adegbile, Adio-Moses, 2004; Olaleye, 2010; Akpan & Etor, 2011).

It is important to note that for fifteen years, Nigeria was under military rule. During this period, the tertiary institutions were plagued with riots and strikes resulting in a decline in quality of the educational system. First generation universities were worst hit by this and they are still in the process of recuperating from the neglect of the military rule. Over and over again, different segments of corporations and institutions in Nigerian have averred that Nigerian graduates are unemployable and Health Education graduates are not exempted. This is a serious indictment on not just these graduates but also on the institutions that certify them. Possible posers to this therefore are:

- Is innovation driven competencies, creativity and design a treat to the tradition of first generation universities?
- What are the deficiencies of first generation universities in Nigeria towards equipping prospective health education graduates and is there any promise of on-line learning with opportunities of apply theory to practice?
- How prepared are first generation universities in Nigeria to change the learning landscape.
- What are the steps needed for re-tooling and re-positioning first generation universities in Nigeria from the student service paradigm to the student development paradigm?

This paper shall attempt critical analysis of these posers as it concerns Health Education certification in first generation universities in Nigeria.

Innovation Driven Competence, Creativity and Design: a treat to first generation universities?

Christensen and Eyring (2013) contend that traditional universities are an indispensable cornerstone of society and culture. While we cannot afford to lose the traditional college experience, we also cannot afford to support it on its current trajectory. In the race to constantly making themselves bigger and better, first generation universities lost focus on their once-modest missions and are now terribly overstretched and overcommitted. The economic downturn is exposing them, as seen by the increasing number of students who are jumping ship to alternative forms of higher education like private for-profit universities, technical institutes and online degree programs. The situation of first generation universities in the area of innovation driven competencies is best explained after a short review of the concept of innovation. Innovation is the end of a process. It is actually the end product of a series of processes. To be specific, two processes. These processes which have strong links are creativity and design. Innovation does not just happen it begins with a process (creativity) and progresses to the next phase (design) before it is birthed at the last stage which is innovation.

Creativity

In an attempt to clarify these stages, Hollanders and Cruysen (2009) defined creativity as the generation of new ideas; design as the shaping (or transformation) of ideas into new products and processes; and innovation is defined as the exploitation of ideas, i.e. the successful marketing of these new creative idea and processes.

Florida (2002) stated that creativity is multidimensional and three different 'types' of creativity can be distinguished: technological creativity (invention), economic creativity (entrepreneurship) and artistic/cultural creativity. All these dimensions of creativity are interrelated, sharing a common process of thinking and reinforcing each other. Creativity is frequently associated with notions such as talent, spontaneity, coincidence and innovation, However, modern literature reveals

that, although factors such as luck or chance certainly play a role, creativity in higher education may be enhanced (or hindered) by specific institutional and environmental situations as well as cultural factors. Favourable conditions include team work, cross cultural exchange grounded in socio-cultural diversity, time and resources (Florida, 2004, Tepper 2005).

Birley (2002) noted that developing the appropriate infrastructure is essential to promoting creativity, but these efforts may be fruitless if the culture of the organisation is not supportive. On a general note, the culture of an organisation affects the creativity of its members. Particularly, a culture that encourages risk taking and accepts failure will encourage its members to be creative and innovative (Markoff 2005, Walcott 2002). According to Florida (2004, 2005), the key to creativity lies in a formula that includes the three T's: Technology, Talent and Tolerance.

If this assumption is correct, then higher educational institutions are central to Nigeria's creative capital since they supply at least two (i.e. Talent and Tolerance) if not all three of the T's. These conditions, however, are not sufficient as other factors like the availability of capital among other external factors significantly, though indirectly, influence creativity in first generation universities. Also creativity in higher education must have the following characteristics: Originality, Appropriateness, Future orientation and Problem-solving ability. Most first generation universities in Nigeria now rate very low on the characteristics stated above.

Design

Design is the link between creativity and innovation. It translates ideas to become practical and attractive propositions for users or customers. The concept of design could be defined as an economic activity or more general as the translation of the ideas generated by creativity into new products and processes (Bitard & Basset, 2008). With the myriads of challenges facing first generation universities in particular and the educational sector in general, the need for designing excellent programmes based on ideas generated through creativity and design cannot be overemphasized. Health Educators must therefore be trained to develop, innovative programmes and interventions designed in line with the peculiarities and the need of the targeted audience. These peculiarities cover psychological, socio-cultural and

economic realities. This is needful as health behaviours are culturally embedded, socially conditioned and economically constrained.

Innovation

This is the completion of the process of change and progress beginning from creativity through design and ending in innovation as the end product. From the views of Hoallnders and Cruysen (2009), innovation is the exploitation of ideas. One of the biggest challenges of modern Nigeria is unemployment and the rate of unemployment in the country is alarming. With innovative graduates, the search for white collar jobs will be greatly reduced as creativity will lead to the generation of ideas which can be sold to the consuming public. The status of first generation universities in Nigeria today gives little room for creativity and the need to uphold old traditions has not helped matters either. There is need to assert that first generation universities must break with tradition and find innovative, less costly ways of performing their uniquely valuable functions, allowing them to once again become responsive to the needs of learners.

Health Education as a Discipline

Health Education, as a discipline in the field of Social Science, draws from the biological, environmental, psychological, physical and medical sciences to promote health and prevent disease, disability and premature death through education-driven voluntary activities. The objective of health education is to encourage people to be healthy, to know how to stay healthy, to do what they can individually and collectively do to maintain health, and to seek help when needed. Implicit in this objective is the concept of self-care (not *laissez faire*) and self-reliance at individual and community levels. The purpose of health education is to positively influence the health behavior of individuals and communities as well as the living and working conditions that influence their health (Igbanugo, Fadoju & Adio-Moses, 2011; Udoh & Haastrup, 2006; Ajala, 2005; Ademuwagun, 2002). In reviewing the goals of health education, The Coalition of National Health Education Organizations (2009) showed the need for innovation and innovative programmes among Health Educators in carrying out the tasks listed below.

- Health education improves the health status of individuals, families, communities, states, and the nation
- Health education enhances the quality of life for all people
- Health education reduces premature deaths
- By focusing on prevention, health education reduces the costs (both financial and human) that individuals, employers, families, insurance companies, medical facilities, communities, the state and the nation would spend on medical treatment

Who therefore is a Health Educator?

The American Job Center (2013) defined a health educator as a person who has been certified to provide and manage health education programs that help individuals, families, and their communities maximize and maintain healthy lifestyles. Collect and analyze data to identify community needs prior to planning, implementing, monitoring, and evaluating programs designed to encourage healthy lifestyles, policies, and environments. May serve as a resource to assist individuals, other healthcare workers, or the community, and may administer fiscal resources for health education programs.

What are the deficiencies of first generation universities towards equipping prospective health education graduates?

Health Education is a profession; it is not just an enterprise. Practicing personnel need to be duly qualified to engage in the practice. This is a critical issue for professionals in Nigeria as well as in other developing countries where the profession is still to gain the recognition it deserves. The need for manpower development in this special profession for Africa took the centre stage during the 14th Session of the World Health Organisation (WHO) Regional Committee for Africa which convened in Geneva in 1964. At the session, Ademuwagun (2002) documented that the African Heads of State considered at length the problems of manpower training in Health Education in the African Region. Having duly recognized the fact that every health worker has a measure of role to play in the education of the public, it was the submission of the body that public health concepts and the principles as well as methods of Health Education be incorporated in the professional preparation of health workers.

After careful consideration of the above, the University of Ibadan, Ibadan and the University of Yaounde were considered for Anglophone and francophone countries respectively. In 1975, the programme took off in the University of Ibadan. This programme gave birth to The African Regional Health Education Centre (ARHEC), College of Medicine, University of Ibadan. The recognized professional qualifications for Health Educators in Africa as documented by Ademuwagun (2002) are:

1. Diploma in Health Education/Advanced Diploma in Health Education
2. B.Ed./B.Sc. (Health Education)
3. M.P.H/M.Sc./M.Ed. (Health Education)
4. Ph.D/Dr.P.H (Health Education)

A person with one or more of these qualifications is a professional Health Educator. However, recent findings on the state of higher education in Nigeria as conducted by the World confirmed the degradation of the Nigerian federal universities. Nigeria was a country that produced world-class university graduates that could compete with their counterparts around the world and hard work was their watchword. The riot in the educational system is seen more in infrastructural decay, administrative lapses and production of unqualified graduates. Also, with the increasing population of qualified students seeking for university education in these first universities and the growing needs for scientific and technological developments, it is only right to say that first generation universities in Nigeria are overstretched. Akinwumi (2012) also stated that the demand for higher education in Nigeria, particularly at the university level, has outgrown what the system can cope. The resultant effect is seen in the level of innovation and ICT development of these universities.

An innovative university is expected to use online technology to makes the university vastly more attractive to a wide subset of students. It should give many people a second chance at learning – i.e. those who cannot afford a traditional university education, those who do not have the flexibility to take part in a full plate of coursework, and late bloomers or dropouts who have fallen behind and should have the chance to catch up.

Indeed the number of school leavers who seek to study health education has greatly increased but no matter the numbers to be trained, the quality of these graduates must meet up with

The WHO (2012) documented the quality that professional Health Educators are expected to possess. These qualities include their ability for effective (but not limited to): assessment, planning, implementation, evaluation, coordination and communication.

Third generation universities in Nigeria still adopts the traditional methods of training health educators and these methods provide very little opportunity for Innovative ICT development and utilization unlike younger universities who provide opportunities for online learning.

Online learning does not just offer cheaper education for the masses, it improves the student learning experience across the spectrum by allowing remedial to elite students to learn at their own pace and on their own timetable. Students can receive a fully customized education adapted to their own individual learning style, something that even the world's best one-on-one tutor would have trouble systematically emulating. Students also benefit from a full array of choices about where, when, what and how they learn. And they can access the best teachers and information faster, connect with more global networks, and all in all consume a much more attractive product. Lastly, online learning is a cost-saver to the university, greatly reducing the expense of building and managing a brick-and-mortar facility. Combine the lower cost of delivery with the lower cost of attendance. It is clear that online learning has a lot of advantages, therefore third generation universities are advised to adopt these technologies.

Changing the Learning Landscape: ICT and Preparation of Health Educators

Now is the time for third generation universities to embrace advances in digital technologies, and for academic staff and institutions to adopt new practices that will increase student engagement and benefit the learning experience. No institution can ignore current developments in learning and teaching technologies and resources; with the developments in open educational resources, social media and mobile learning, among others, this is a really timely moment for staff and students to embrace fully what they can offer. For health educator to fulfill their role effectively in the society, innovative programmes which aims to support step-change in institutions' strategic approaches to online learning and teaching must be considered, as well as to

increase the number of academics adopting digital technologies in creative and effective ways to support their teaching.

To produce innovative and ICT ready health educators, first generation universities in Nigeria must design a landscape that provides opportunity to explore how technology can enhance health education practice. Designed particularly for staff that are yet to engage fully with new learning technologies. The present Health education curriculum can no longer meet societal health education and information need. There should be a hands-on focus to the workshops, with practical ideas and case studies from staff that have direct experience of using technologies in their own teaching, and access to other resources. There should be a strong focus on the student experience of learning with digital technologies.

Lecturers should also have an opportunity to bid for small grants to fund development projects linked to innovation and ICT institutional change at a strategic level, first generation universities should look at how they can move beyond pockets of innovation to new practices right across institutions so that all students can benefit.

It is therefore vitally important for health educators and those certifying them to think differently and radically. Through the advancement of ICTs, the world is experiencing a real revolution in the dissemination of knowledge and the enhancement of instruction. This is the third revolution in learning, the first being the invention of the written language and the second being the development of moveable type and books. ICTs make both the content of learning and the interactions of high-quality (and other) instruction affordable and available anytime, anywhere and this could be exploited by health educators in the cause of carrying out their professional duties.

Steps for Re-tooling and Re-positioning First Generation Universities in Nigeria

First generation universities must undertake an honest self appraisal especially as regards their capacities to cope and remain relevant in an era of stiff competition with new generation universities that are more innovative and ICT compliant in approach. First and foremost, best practices must become the hallmark of these universities vis-à-vis creative learning. The good old pedagogical practices must as a matter of urgency be

replaced by innovative pedagogy as these out-dated good old practices can no longer answer the questions of today. Innovative and creative learning must as a matter of fact replace the present method of dogmatic learning where the teacher is the islander of knowledge with the learner playing totally passive role in the teaching and learning process.

In the 21 Century classroom, every agent in the teaching and learning process comprising the teacher, the learner and the teaching media (teaching aids and materials) must all play active roles with none considered less important. It is also important to note that in the Health Education 21st Century classroom, learners, in the words of Kampilis, Saariluoma and Berki (2006) must not spend their whole time and energy studying the work of others, rather, they must have time and energy to create, explore and question. Innovative learning as stated earlier must be given serious consideration. Tenets of innovative learning are challenge, self-reflexivity, critical thinking, process, exploration and an open-minded attitude (Bannaji, Perrota & Cranmer, 2010). Learners in the 21 Century Health Education classroom which has innovation and ICT compliance as its hallmark must be able to:

- Challenge stereotypes and set new standards.
- Demonstrate evidence of the ability to focus on a task at hand with all level of concentration.
- Make good use of Information and Communication Technology gadgets like the Internet, multimedia projector, smart boards and others intelligently and effectively.
- Learn how to master a wide range of attitudes, insights and skills especially as it relates to the problem of individual health behaviour vis-à-vis promoting personal and community health.
- Master their own peculiar learning needs as well as their learning styles.
- Transfer knowledge through the demonstration of the ability to reflect on own experiences and take different courses of action that are analogous of different situations.
- Take responsibility and initiative as well as organize, plan, display or execute a project individually or as a member of a team.
- Have a critical and confronting attitude as opposed to acting in a sarcastic and degrading way.

In conclusion, the following recommendations which are mainly drawn from empirical findings from the Creativity Project Report by European University Association which are also considered effective in repositioning first generation universities to effectively discharge their duties of producing responsive Health Educators must be painstakingly implemented:

1. First generation universities must strive towards a creative and innovative mix of individual talents and experiences among students and staff, providing common fora for researchers from different disciplines and offering diverse learning experiences will likely result in conditions favourable to the creativity of the higher education community.
2. Diversity in terms of talents, interests, previous qualifications, experience and social backgrounds which has been identified as a crucial factor for fostering creativity and innovation among students and staff within these institutions should be complemented with engagement, outreach activities and cooperation at the local level and beyond. Relations with external partners expose the academy to expertise not found within its walls and prevent isolation and self-reference. Cooperation between these universities and external partners should follow the model of virtuous knowledge creation by aiming towards co-creation of knowledge through a two-way communication process to the mutual benefit of both partners.
3. Every activity and programme of first generation universities must pass the litmus test of ascertaining whether it fosters the vision and mission of the institution in terms of teaching and learning, research and service to society.
4. First generation universities must as a matter of utmost importance should look towards the future in all their activities, rather than being grounded in the past. The high level of expertise of the university community in diverse fields uniquely qualifies these institutions to strive towards "being one step ahead" of the times by going beyond established knowledge, questioning time-honoured ideas and trying not only to solve current problems but also be proactive in identifying issues of future relevance. In keeping with this forward-looking orientation, these institutions

should work towards developing internal quality processes that support the creativity and innovation agenda by being geared towards the future and avoid over-bureaucratization.

Further Recommendations

In order to produce first class innovative health education graduates of international standard Nigerian first generation universities must align itself with the vision of the innovative university as presented by Christensen and Eyring (2011). They contend that the most innovative institutions will offer **online versions** of not only their general education courses but also the introductory courses for majors. Students will take courses designed to produce the same learning outcomes as the on-campus equivalents. In line with the views of the innovative university, first generation universities in Nigeria should therefore

- **Let learning happen where and when you want it to.** The traditional model of higher education reflects the technological limitations of the Middle Ages. Until relatively recently, even the computers had to take their assigned seat in class, at a “tech station” controlled by the human instructor. But the ubiquity of high-speed Internet access is changing the learning playing field. Students should now access information in unprecedented ways.
- **Let the university face its first truly disruptive technology.** What this means for the traditional university is that its brick-and-mortar campus and faculty of scholars are optional learning aids, albeit powerful ones. Young students who can afford the price will be well advised to seek a campus learning experience, at least for part of their time as students; some of the most important learning outcomes will always be realized in a face-to-face community of learners. But even students who chose to pay the costs of coming to campus will be unwilling to submit to the traditional schedule of day-time classes and long nights of hitting the books.
- **We don't lecture, and you don't carry textbooks.** The expert lecturer set the great universities apart for centuries. But the lecture, which now can be captured and sent around the world at little or no cost, is no longer unique to the university where the expert works.

The same is true of textbooks. Listening to lectures and reading textbooks is pale compared to learning techniques of the early universities such as dialogue, experimentation, and personalized coaching. As enrollments swelled in the twentieth century, lecture and textbook-focused learning simply became the mass-production alternative. Now new technologies, including online discussion forums and computer-adaptive tutorials, allow an inexpensive but potentially effective return to the group dialogues of Socrates and the one-on-one discussions with Oxford dons.

- **Rather than entirely replacing face-to-face learning, online technology enhances it.** Students can prepare for class via interactive, adaptive online tutorials that include the content formerly delivered via lectures and textbooks. They can also tutor one another in small-group discussions, which may occur online or face-to-face. When they arrive at class they are prepared to be led by their professor in high-level explorations like those of the best law and graduate business schools.
- **This hybrid form of learning is better than either purely online or purely face-to-face instruction.** Learning is deeper than it traditionally has been at even the best universities and colleges. It is also less expensive, allowing institutions to make good on the pledge that students can graduate without debt. Online learning technology allows universities and colleges to achieve scale economies through growth, just as successful businesses do. As they add fully online and hybrid course offerings, their existing physical facilities can accommodate many more students. (That is especially true as they increase their summer offerings, another move students can expect to see in the future.)
- **Technology -enabled scale economies allow institutions to grow their way to lower cost without sacrificing learning quality.** The lower cost can be passed on to students; growth-oriented institutions can charge less for all courses, but especially for the less-expensive online ones. Depending on a student's choice of on-campus and online courses, it is possible to earn a

degree at a fraction of the traditional cost and even without debt.

- Few universities and colleges, including the for-profit ones, currently make good on all of these promises. But disruptive technologies will lead to competition that drives everyone to better meet students' needs. Discerning consumers of higher education—students, parents, public policy makers, donors—should begin testing providers' commitment to the promises that innovation now makes possible. In so doing, they'll hasten our brighter higher education future.

The Nigerian government must ensure that legal frameworks, funding mechanisms and policy priorities exert considerable influence on creativity and innovation towards the positive direction in first generation universities which are all owned by the federal government. Governments need to be aware of their role in advancing creativity and innovation agenda and the responsibilities this entails. Universities must be provided with the financial and academic autonomy necessary for re-inventing university education in Nigeria especially in the first generation universities that provide university education to a sizeable proportion of the populace.

Finally, first generation universities and other sectors of the society have long existed in separate spheres. Consequently, there is a mutual lack of knowledge and awareness on both sides. External partners should cooperate with these institutions on matters of common interest, leading to mutual benefits and in keeping with academic values and missions.

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