

Rethinking Education in Nigeria: the Challenges of 21st Century Learning Society

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A b s t r a c t

The purpose of this paper is to show that instructional content and delivery in Nigerian schools, (including institutions of higher education) as obtained in their present form lack the necessary quality the country requires to participate in the 21st century knowledge-based economy. The post-colonial education curriculum adopted by educational institutions in Nigeria seems to be deficient, hence inadequate to provide what XU (2015) calls level 2 competencies required in today's global community. The paper explores Bandura's self-efficacy theory for its theoretical explanation. In addition to restructuring the curriculum content and making the delivery students friendly, students need to be self-efficacious in order to have sufficient control over their intellectual environment. The paper anchored its strength on the need to respond to the social and economic needs of students and society in the 21st century, and to align with countries whose economy is being driven by the 21st century education. The use of self-efficacy as a learning strategy among students, and the need to transit from textbook-driven education to competence-based education being urged is likely to assist Nigeria to achieve this goal. This new orientation is likely to provide Nigeria with the desired results in its quest to participate in the 21st century knowledge-based economy.

Keywords: *Knowledge-based economy, 21st Century education, Self-efficacy theory, Textbook-driven education, Competence-based education*

Background to the Study

This paper stresses the need to restructure the educational content and the quality of instructional delivery in Nigerian schools in order to meet the global demands for knowledge-based economy. It advances a position, namely, the need for Nigeria to restructure its education with a particular focus on updating the school curricula with a strong moral component, re-strategising pedagogical approaches in schools, and emphasizing acquisition of skills and competencies in order to meet the demands of the 21st century learning society. Students' and teachers' self-efficacy beliefs are likely to strengthen the efforts being made to meet such demands for knowledge-based economy. The argument, therefore, is that students are likely to acquire competencies if they become efficacious in their learning, while teacher adopts the modelling strategy in his pedagogical approach. These approaches may provide a positive platform for Nigeria to advance towards meeting the demands of the knowledge-based economy.

State of Educational Content and Delivery in Nigeria

Colonial education in Nigeria lasted until 1960; its aim was to train clerks, interpreters for the imperial power, catechists, and technicians. Its curriculum was, therefore, designed basically for this purpose, that is, for the purpose of training state officials. Since the curriculum content was delimited to training the officials of the State, meeting the needs and aspirations of the people was not given a primary thought. There seems to be no solid foundation left behind by the administration. According to Akinlua (2010) the bad precedents, the poor foundations, and the huge irrelevancies acquired from the colonial period continued to deal great retarding blows on the educational enterprise.

For Sofolahan (2000, p. 3) "by 1960, the structure and strategies for educational delivery had become so inadequate that a revised structure was inevitable if the content of education was to be relevant to the needs of a new and vibrant nation." Meanwhile, these inadequacies in the curriculum of the colonial education seem to compel the government of the day to undertake a "series of school curriculum projects" which eventually culminated to the National Policy on Education in 1977. The policy was expected to drive the post-colonial education policy into 21st century. Whether the policy is able to perform this function remains a matter of contention.

The task force on higher education as published by the World Bank (2000) observes that "...most higher education institutions in developing countries suffer severe deficiencies in (a) well-designed academic programmes, (b) high quality faculty and committed and well-prepared students, and sufficient resources". The task force went ahead to add;

rote learning is common with institutions doing little more in the classroom than copying their notes onto a blackboard. The students, who are frequently unable to afford a textbook, and those students who regurgitate a credible portion of their notes from memory achieve exam success. These passive approaches to teaching have little value in a world where creativity and flexibility are at a premium.

The report of the World Bank, which was published in 2000, is still relevant today when assessing the state of education in higher education institutions in Nigeria. There are two factors that seem to account for these institutions' inability to traverse the poor foundations

they inherited from the colonial period. First, the curriculum content and practice inherited are still similar to that of the colonial era. Though there were many adjustments made in the curricula, Akinlua (2010) is of the view that these adjustments were mere 'ink and paper' masterpieces. As he claims, they remain 'shadows' and 'ghosts' in execution; because according to Akinlua (2010, p. 96) "the school building, the teacher and time tables that operated the grammar schools of fifty years ago are still the same set of instruments that are offered to operate the new systems".

Whether in public schools or private schools in Nigeria, the structures remain the same, as Akinlua has claimed. Ali (2014) goes further to say "our curricular is not based on the currency of what is going on in the society" (p. 17). In a further remark, "graduates are thus churned out without the requisite competence needed in the labour market" (Ali, 2014, p. 17). It is not only the curriculum that is inadequate, the learning environment and teaching methods being used in schools are also defective. The problem extends to the university system as Saint, Hartnett & Strassner (2003, p. 280) have claimed: "In today's world, the content and method of Nigerian university teaching is often out-dated, not responsive to employers' requirements, and disconnected from the labor market". Saint et al's (2003, p. 271) verdict on university curriculum in Nigeria is: "It lacks quality". These curricula that lack quality remain the wheel Nigeria relies on to propel its education and perhaps economy into the 21st century.

Kneller (2000) has a similar view here and as he claims;

Modern education, in short, emphasizes submission to authority, rote memorization, and what Freire called "banking concept", of education in which learned teachers deposit knowledge into passive students, inculcating conformity, subordination, and normalization (p. 246).

These traits as Kneller (2000, p. 246) further claims "are becoming obsolete in a global post-industrial and networked society and its demands for new skills for the workplace, participation in new social and political environs, and interaction within forms of culture and everyday life". Dede (2009, p. 3) submits that "classrooms today typically focus on assessments and tests measuring students' fluency in various abstract, routine skills rather than their strategies for expert decision making when no standard approach seem applicable." Oduolowu 2007 (as cited in Marinho, 2009, p. 12) is said to have claimed "among other out-dated instructional techniques, rote learning which focuses on the 'memorisation and regurgitation of facts' is still in use." From all indications, it seems Nigerian schools have not prepared for the challenges ahead; what constitute the elements of 21st century education are clearly lacking in their instructional content and practice.

Self-Efficacy Theory and Competence-Based Education

Social cognitive theory was developed from the theory of social learning proposed by Miller and Dollard in 1941 though Bandura and Walter later added the principles of observational learning and vicarious reinforcement to expand its scope to become social cognitive theory (Sullivan, 2013). Social cognitive theory explains the control humans exercise over their lives through their actions (Sullivan, 2013). Its emphasis in a work like this is meant to show the importance of observing and modelling the behaviours, attitudes, and emotional reaction of others (Bandura, 1994). Such a strategy is likely to strengthen students' self-efficacy beliefs, and then empower them to acquire competencies in their learning.

One aspect of motivation that may be of interest to students desirous of acquiring the ability to perform task and solve problems in their learning is self-efficacy. Self-efficacy is defined as a judgment a student makes about his or her ability to accomplish a specific future task (Bandura, 1986). It derives its inspiration from social cognitive theory, and serves as a means of fostering students' motivation to learn independently (Bandura, 1997). Self-efficacy offers an escalatory approach to students' efforts to acquire skills and competencies required in today's workplace where 80 per cent jobs, as reported by the American Association of College of Teacher Education (AACTE), are said to be in the service sector (AACTE, 21st century knowledge and skills in Educator Preparation, p. 7).

Scott (1996) is of the view that if performance is stressed and grading is used to control the learner, as it is commonly used in the traditional system where textbook learning is emphasized, then self-efficacy is not being developed. In most schools in Nigeria, performance of students in class is based on exam grades. Scott (1996) thinks teachers need to implement instructional techniques that will strengthen students' self-efficacy, an action that may likely be performed by teachers who are self-efficacious. Bandura (2009) identifies four principal sources of information conveyed enactively, vicariously, persuasively, and somatically. Enactive mastery experience relates to success achieved by students when they learn from past mistakes. The second way of developing personal efficacy is by social modelling. Models such as parents, teachers etc. sometimes help students to manage difficult task. The third one, social or verbal persuasion deals with how individuals can be persuaded to believe in themselves. Lastly, somatic experience deals with an individual's mood. It affects how we judge our efficacy. Positive mood enhances a sense of efficacy.

The essence of developing self-efficacy in students is to equip them with self-regulatory capability to educate themselves. Students' self-efficacy beliefs can only be effective if the effort is complemented by teacher's self-efficacy. Teacher's belief about his/her ability to affect students' achievement is likely to make a difference in the life of the students. Teacher needs to implement instructional techniques in the classroom that will strengthen students' self-efficacy (Scott, 1996). He equally needs to empower the students, and motivate them to succeed; this is best achieved through modelling. Teacher with low instructional efficacy gives up easily on students; and that is why teacher and students need to be resilient to failure otherwise self-efficacy will fail. Perseverance and resilience to failure should be seen as characteristics required of both teacher and students in Nigerian schools.

Characteristics of the 21st Century Education

In their remark on the need for reforms in today's educational system, Voogt & Roblin (2012, p. 300) have contended "[t]he dynamic changes in the types of jobs demanded by the knowledge society pose important challenges to educational system, as they are currently asked to prepare young people for a job that does not yet exist." Remarkably, we need to ask the question: But what are these changes in the workplace that have brought about these challenges? They are "complex tasks inherent in the new world". XU (2015) identifies competencies such as communication, collaboration, reasoning, problem-solving and creative thinking as tools required to handle these complex tasks. XU calls these competencies *level 2 competencies* linked to what he calls "an individual's general cognitive and dispositional resources". Such skills/competencies are indispensable for participation,

achievement, and competitiveness in our global community (AACTE, 2010). They are meant to prepare young people for the challenges that may arise from their personal lives and workplace.

For the World Economic Forum (2015, p. 2) “to thrive in today's innovation-driven economy, workers need a different mix of skills like literacy and numeracy, they need competencies like collaboration, creativity and problem-solving, character qualities like persistence, curiosity and initiative”. Thus, the major features of education that seem to be driven the 21st century learning society are skills and competencies. Crawford & Rossiter (1993) want us to understand that “too much emphasis on employment-oriented competencies at the expense of education for personal development is dangerous” (p. 39). Advocates of the 21st century competencies are oblivious of the danger in education that neglects the individual's personal development. The teaching of critical thinking is likely to make a difference in the lives of individuals where the opportunity to reflect on one's actions is made possible. Thus, the 21st century education emphasizes character training, team spirit, and leadership qualities; this should fill the gap required for personal development in such an education.

One of the aims of education is to equip students with skills and competencies they require to be able to excel in their career and place of work. Thus, in a paper entitled: *21st century knowledge and skills in Educator Preparation*, the author(s) contend “whether a high school graduate plans to enter the workforce directly, or attend a vocational school, community college, or university, it is a requirement to be able to think critically, solve problems, communicate, collaborate, find good information quickly and use technology” (AACTE & Partnership for 21st century skills, 2010, p. 7). These basic skill/competencies cannot be achieved in a learning setting where cramming is a culture in the examinations, and analysis of ideas is hardly engaged in. Strictly speaking, these skills/competencies are desirable in a country like Nigeria whose education is still run on colonial template.

The difference between textbook-driven education and competence-based education is seen both in process and practice. Competency-based education stresses abilities to carry out tasks especially tasks that involve responsibility and autonomy. It is outcome-bound and results oriented. On the other hand, textbook-driven education focuses more on assessing students' ability to recall discrete facts, while the teacher wants to see how much of these facts reflect what he taught in class. While textbook-driven education has its own merit, nevertheless in dealing with jobs demand, in the present century, textbook-driven education offers little assistance. The reason is clear. According to AACTE (2010, p. 7) “today more than 80 per cent of jobs are in the service sector”. Textbook education has little value here.

Education and the Challenges of Knowledge Economy

Verspoor (2008, p. 114) has remarked “...few countries (in Africa) have policy framework that will allow them to expand access, enhance equity and improve quality at the same time”. In the face of the current economic recession, countries whose policy framework has allowed access, equity and quality in education are likely to relapse in their efforts to sustain this policy. Financial constraint and issue of priority in policy framework may account for failure in policy implementation. While some countries may want to get closer to the UNESCO's 26 per cent budget allocation to education, in spite of the recession, some other countries will

not. Sometimes the policy framework may be sustained while corruption and official ineptitude eat deeply into it and get its implementation impaired. Again, it is likely few countries in Africa will have the urge to keep pace with the spate at which education reforms are going on in the world. Such countries stand the chance of making progress in areas bordering on socio-economic development.

Two issues seem to come up here while dealing with the challenges in education in Nigeria. First, the question of structure and system that can assist Nigeria to participate in knowledge economy and second, the state of the existing education system and the system's ability to sustain students' capability to acquire and apply knowledge as required by the global change for economic growth. These issues are discussed in relation to the development of self-efficacy in task management among students.

The World Bank report, says that knowledge-based economy relies primarily on the use of ideas rather than physical abilities and on the application of technology rather than the transformation of raw materials or the exploitation of cheap labour (The World Bank, 2003, p. xvii). Obanya (2004a, p. 122) defines knowledge economy as "one in which higher order cognitive and affective skills are valued over lower order manipulation and mere routine skills". In it, the emphasis is on how to ensure that students acquire the right skills necessary for them to fit into the world of work and that of competitive global economy. It also goes beyond passive approaches to teaching which has "little value in a world where creativity and flexibility are at a premium" (World Bank, 2000, p. 23). Students' ability to acquire the right skills and teachers' active approaches to teaching will demand their high self-efficacies. Students with low self-efficacy stand discouraged from making efforts to achieve his objective. Teachers who believe that their students can make a difference in their studies in spite of the challenges being faced by these students possess high self-efficacy.

Knowledge economy is characterized by productivity, economic growth, learning society and lifelong learning. These characteristics are driven by education that involves fundamental skills/competencies such as "communication, collaboration, reasoning, problem-solving and creative thinking" (XU, 2015, p. 80). While providing further explanation on the importance of competencies to knowledge economy, XU identifies competencies with "intellectual abilities" which he considers to be general cognitive and dispositional resources for mastering challenges across different subject contexts. Obanya (2004a) does not see how such competencies can be developed in a learning environment where "the promotion of real learning...has become very difficult and frontal teaching and memorization take the place of investigation, experimentation, and discussion" (p. 13). Except that students with high self-efficacy can generally be motivated to overcome such difficulties in their learning environment.

The World Bank (2003) reports that education in Nigeria remains information based, teacher-directed rote learning provided within a formal education system and governed by official directives. To Saint et al (2003) what is considered the content and method of Nigerian university teaching, in today's world, is often out-dated. The pedagogical approach and the curricula of most Nigerian universities may not be able to support the 21st century education requirements. Apparently, higher education institutions with such defective structure and

curricula can hardly prepare young people for the challenges of the present century and the country for knowledge-based economy.

Restructuring Education in Nigeria for Global Relevance

The study undertaken by Saint et al (2003, p. 261) on the state of education in Nigeria revealed a number of contradictions in the existing educational system. Saint et al observe some lapses in university admission policies, the curriculum content and methods of university teaching, and funding of projects in universities in Nigeria. It is on the basis of these lapses that the question whether Nigeria possesses the necessary elements to develop a national innovation system indeed arises. These contradictions still persist, and may linger for a long time except a proactive measure is taken to make an early reform.

In addition to Saint et al's observation, "policy centralization also makes it difficult for universities [in Nigeria] to be responsive to changes in knowledge, the labor market, and economic development." (Bloom, Canning & Chan, 2005, p. 7) To Asiyai (2013, p. 165) "the acute shortage of educational facilities in institutions of higher learning in Nigeria has led to decline in the quality of higher education in the country." On primary and secondary education, Tahir et al 1994; Yoloje 1994, 1996, (as cited in Bogoro, 2015, p. 8) aver "there seems to be consensus among scholars in Nigeria that the quality of primary and secondary education in the country is fast declining due largely to poor trained teachers, scarcity of teaching materials, inadequate supervision of schools, and inadequacy of the schools themselves". Schools where these factors are prevalent are likely to alienate their students from serious academic work. The antidote is for the teachers to be efficacious, and students to possess a high efficacy.

Saint et al (2003) see an asymmetrical relationship between school enrolment in Nigeria and pupils' yearly completion of their studies. In a study carried out in Nigeria, results showed that primary education enrolment was 81% of the relevant age group with only 69 of these pupils completing their studies. In the area of government allocation of fund to schools, Saint et al (2003) remarked that between 1990 and 1997, for example, the real value of government allocations for higher education declined by 27%, though enrolment grew by 79%. There has not been any serious improvement on government allocation to schools, since policy on budget allocation is likely to be dictated by the economic viability.

In Nigeria, the issue is that policies are poorly implemented or never implemented at all. Poor implementations of education policies in Nigeria must have informed the inadequate attention given to most global initiatives on education in the country. For instance, the implementation of Universal Basic Education (UBE) programme, in the country, has remained haphazard. In a recent programme (February, 2017) organized by Universal Basic Education Commission (UBEC) in Nigeria, participants who were mainly school teachers, gave the challenges they faced in their various schools as; (a) being mandated to teach eight lessons every day, while the contents of such lessons were not mastered (b) harassments from illiterate parents when pupils were compelled to submit assignments (c) many of the pupils were poorly fed leading to their inability to cope with their studies etc.

The Need for Educational Reform in Nigeria

Part of the policy reform options Nigeria requires is to make teacher education rigorous enough to emphasize adequate knowledge of the content area and mastery of teaching strategies. The emphasis should be to prepare students adequately for the contemporary challenges in the global community, and to make the teaching of fundamental skills and competencies teacher's learning paradigm. There is need to monitor the implementation of education policies to ensure that such policies are faithfully implemented.

Nigeria may need to revisit the report of Saint et al on admission policies in Nigerian universities. For them, admission policies of higher education institutions are not related to labour demand requirements, nor to individual students' interests but mainly to secondary school grades. Institutions of higher education in Nigeria have just begun this policy of admitting students into degree programmes using the grading system. The results may later turn out to be frustrating as most of the grades being used for the admission exercise were not earned on merit.

It is imperative for Nigeria to recognize the need to (a) pursue policy reform options and explicitly recognize constraints on public and private resources, and tackle the issue of efficient resource use and allocation, and (b) implement curriculum reform simultaneously with financial and management reform (Verspoor, 2008). In addition, Saint et al (2003) advise university departments to consider periodic change in their curricula every two or three years in order to ensure that the content of their teaching reflects the rapidly advancing frontiers of scientific knowledge. There may be the need to reduce the regulatory power of National Universities Commission (a body that regulates academic activities in Nigerian universities) to enable the country's universities to be responsive to changes in knowledge, labour market, and economic development (Bloom, Canning & Chan, 2005).

The World Bank (2000, p. 25) observes that "the developing world is littered with deteriorating buildings, inadequate libraries, computer laboratories that are rarely open and scientific equipment that cannot be used for want of supplies and parts". Most schools (higher education institutions inclusive) in a country like Nigeria have no functional computer laboratories; hence they are likely to have a dysfunctional ICT programme. In order to have an effective ICT programme in place there may be the need to pursue infrastructural development, especially electricity, making the environment conducive to learning and increase financial supports to existing schools and colleges. Finally, universal basic education should be pursued with vigour to enable a vast majority of the people have access to education. Students must be motivated to understand the essence of self-regulatory capability in their efforts to acquire competencies in learning.

The presence of deteriorating buildings, inadequate libraries, and dysfunctional computer laboratories among others signifies a decay of the existing education system. At the heart of these deficiencies in infrastructural facilities, content and structure is the need to reappraise the education system in order to reposition it for relevance in today's global community. It is in light of this that I recommend that (a) the curricula be revisited in order to align it with the global practices, (b) infrastructural facilities be provided in schools (including institutions of higher learning) so that students can learn in an environment that is intellectually

stimulating, (c) that the current admission policy which emphasizes grades for selections be jettisoned for the former where candidates had to go through another tests, after their University Tertiary Matriculation Examination, before selections into their various courses of study, (d) that teachers need to be trained and re-trained in line with global practices in order to offer useful service to their students, (e) that emphasis on rote learning be reduced, especially in the area of delivery, while skills acquisitions and competencies be promoted so that the country can align the demands of the knowledge-based economic society, (f) that funding of schools be improved so that the schools can provide the necessary capital projects and meet their recurrent demands, and lastly (g) that students and teachers be motivated to achieve the tasks they set for themselves.

Conclusion

The dynamic nature of the business world now call for education with focus on students' abilities in creativity, problem-solving, critical thinking, collaboration, communication and character development. The curriculum content and delivery methods in Nigerian schools emphasize textbook-oriented learning, hence assessments do not measure students' capabilities to translate their learning into reality. There is the need for reform in curriculum content, and a greater emphasis on competence-related learning. Such an orientation is desirable given the demands of the workforce in the 21st century knowledge society. This orientation involves a conscious acceptance that education is a preparation for the world of work. It must also be noted that educating for global knowledge economy goes beyond regurgitation of the teacher's ideas. There is equally the need to incorporate information and communication technology (ICT) and to reform examination and assessment systems in schools and colleges (Verspoor, 2008).

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