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CREATIVE AND FUNCTIONAL CURRICULUM AND INSTRUCTION: THE CHALLENGES AND PROSPECT IN A COMATOSE ECONOMY

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Abstract

The paper observed that the Nigerian education system has failed to equip its products with the necessary tools to live in the modern world and excel in their environment. For products of Nigerian educational institutions to survive, Nigerian education curricular should be completely overhauled and synchronized with the needs of the present economy. This paper also examined the challenges and prospects of education in Nigeria. Education is the bedrock of development. Unfortunately education in Nigeria is bisected with myriad's of problems. These includes; poor funding and thus poor educational infrastructures, inadequate classrooms teaching aids (projectors, computers, laboratories and libraries), paucity of quality teachers and poor polluted learning environment. In addition to these inadequacies, school system is plagued with numerous social vices such a examination malpractices, cultism, hooliganism and corruption. For meaningful development to take place in the educational sector, the government need to re-address the issue of funding. The paper recommended the following strategies to overcome challenges of creative and functional education: private educational investors, teachers, parents/guidance and students/pupils need a re-orientation towards achieving the goals of education.

Keywords: Creativity, functional curriculum education, challenges and prospects

Education throughout the world faces challenges, and they may be economic, technological, social, and personal. This requires a high degree of flexibility and adaptability of the

education system to these challenges. Accordingly, researchers stress the need for a greater degree of promotion of creativity in learning based on broader conceptions of young people abilities and

better powers of communication. New approaches are also needed to find a way to promote students' motivation, self-esteem and the skills. To all these, there should be the need for greater emphasis on individuality, whose development is conditioned by encouraging freedom of learning. There should emphasis on the full development of all the individual potentialities, such as original thinking and reasoning, creativity, innovative and entrepreneurial capabilities.

The learning is fostered by multidimensional interactions between students and teachers. While learners should be in the center of educational processes, teachers play critical roles as coaches. Despite an increased interest in this kind of research, theoretical standing of a new creative education approaches which should foster individuality through more freedom in learning are surprisingly absent in the literature. Therefore, the objective of creative and functional education was to investigate the opportunity for the development of the educational strategies that will create an educational environment, which encourages individuality. Bearing in mind that freedom is the essence of the development of individuality, this discourse addresses the opportunities to foster freedom in education. More freedom in learning will make a strong impact on individual creativity and original thinking. In addition, it is necessary to stress that there is little documented evidence of what specific factors are effective in fostering the entrepreneurial abilities of students

through education and raising entrepreneurial intentions after students' graduation.

Therefore, this paper/discourse tries to explore these specific factors. The findings help to propose a new creative educational model.

The role of education as the bedrock of social, economic, political and cultural development can never be overemphasized. All over the world, education is expected to be highly rated in national development plans because it is the most important instrument of change. Accordingly, any fundamental change in intellectual and social outlook has to be proceeded by educational revolution. The fulfillment of this role lies in functional education. The term 'functional' has been defined Geddes and Grosset, (2005) and Quirks, (1995) as practical and having useful purposes. Against this backdrop, Ali (2000) averred that functional education will ensure the availability of food for people, creation of jobs, provision of services, etcetera. In the same vein, Nwokolo (1988) posited that:

Functional education should be capable of producing Nigerians who can manufacture raw materials, machines and tools needed for local and international markets, invent new designs, discover drugs capable of curing diseases hitherto incurable and transform the nation from a consumption to a manufacturing status.

To, Idowu (1999), functional education is the total process of bringing up individuals to develop their potentials

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(cognitive, affective and psychomotor) to the fullest and consequently be able to contribute maximally to the development of the society. Development is growth or progression from a lower and often undesirable state to a high and preferred one. It refers to the process of building-up. It means some kind of change in terms of the increase in the capacity to perform some difficult tasks and functions. National development involves the process of employing modern technologies to produce goods more than before. Its pertains to industrial ways of living of the citizenry. Functional education can, therefore, be conceptualized as the transmission, acquisition, creation and adaptation of information, knowledge, skills and values for the purpose of self-reliance and sustainable development of a nation.

Functional Education (Knowledge Versus Skills)

The debate over the relative importance of aims and objectives of education that is more or less skill-oriented (process) or knowledge (content or concept) oriented is long standing. Process-based view of functional education considers 'content' or 'concept' as having a second order importance. It (process-based view) emphasizes that students should acquire problem-solving skills and scientific attitudes a Priority. Scientific attitudes are attributes scientists have and usually would display when carrying out the process of science. They are (NTI, 2000a): curiosity, open-mindedness, empiricism, skepticism,

parsimony and suspended judgment until evidence is available. Science process skills are the various mental and motor processes which the scientist use to arrive at new knowledge. These processes are so vital to science that no knowledge can emerge if they are not put into use. These process skills include (Lewin, 1992): observation, interpretation of data, inference, testing of hypothesis, prediction and classification skills. This view of learning values is an inductive approach, "which is a way of thinking involving reasoning from particular cases to general conclusions" (NTI, 2000b).

In contrast to process-based view of science, concept and content-based view of science argue that science is essentially a body of knowledge which consists of the insights scientists have discovered about the physical world. Thus, science students should be required to internalize these concepts first through encounters with specific content and examples (Lewin, 1992).

The underlying approach to learning here is the deductive method of reasoning which start with a generalization and leads to a specific conclusion. Examination of the foregoing approaches to learning (inductive and deduction) reveals that, functional education is one which develops a reconciliation or balance between process and content (or concept) based approaches. It (functional education) brings together the relevant content and life skills, as the child

metamorphoses into a responsible contributing adult in the society.

Functional Education for Universalistic Values

Science has been seen in functional curricula as a subject which promotes inductive-deductive reasoning approach. In the delivery of functional science education, while knowledge and skills are taught, the realm of affective domain is also considered as being important. Scientific attitudes (just like interest and values) fall within affective domain of teaching. Open mindedness, skepticism, and suspending judgment until adequate evidence is available are special scientific attitudes which stress the importance of changing individual values in traditional societies from the parochial, ego-centric and the concrete to those which involve seeing other peoples point of view which are universalistic and abstract and not being bound by the experience of the present. The Nigerian education system is facing monumental challenges – poor quality of schooling from elementary to tertiary levels-arising from the issue of poor quality of teachers (especially at the basic levels), characteristic weak school infrastructures, meager supplies and equipment, etcetera. Beyond the afore-stated issue, today, the notion of what constitute a minimum or threshold functional literacy (knowledge, skills and competences) is changing as a result of progress in science and technology, as well a development of “knowledge” society. Indeed, so many young people and adults are currently

unable to develop the knowledge, skills and competences needed for today’s rapidly changing technologies in the world of work. Two most phenomenal developments in the knowledge society which are automation and globalization – and the consequential changes in the world of work at the global level are raising skill and qualification requirements for job entry, into a more knowledgeable and skilled work force.

Automation

Automation is the use of automatic methods, machinery etcetera, in industries (Geddes and Grosset, 2005). It is the use of machines, control systems and information technologies to optimize productivity in the production and delivery of goods and services. It is also the use of machines to do work that was previously done by people. It means the loss of many factory jobs (Hornby, 2000). It is the use of machines instead of people to do a job (Quirk, 1995). Today, computers are increasingly available to accomplish a wide range of work-related thinking tasks previously executed by humans. Infact any task that can be digitalized such that the key process can be broken into a set of predictable role is subject to automation. Since it is cheaper and incredibly faster to deploy a computer to follow instructions than engage humans to do so, these jobs are rapidly disappearing.

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Rising Vocational Skills Requirement: Implication for Curriculum

As computers take over more and more routine tasks, the nature of work across the entire economy is undergoing rapid transformation. The overall or net trend across the economy as a whole is towards creation of more cognitively demanding job (Jerald, 2009). Therefore, any school curriculum that emphasizes following rules, directions or instructions to find solution to a problem, is in effect, preparing students for a job that may not be available by the time the students graduate. That does not mean that following instructions to accomplish a task is unimportant but rather that it is no longer an adequate skill for success in the global job market.

Given the overall trend towards higher skill demands, and the transitory nature of many low-skilled service jobs, it makes more sense to prepare all students for post secondary education or training so that they have the chance for higher-skilled and highly-paying work (Jerald, 2009).

Functionality of Nigerian Education System

The Federal Republic of Nigeria (2004) believes that

There is need for functional education for the promotion of a progressive, united Nigeria. To this end, school programmes need to be relevant, practical and comprehensive while interest and ability should determined the

individuals direction in education... for the acquisition of appropriate skills and development of mental, physical and social abilities and competence as equipment for the individual to live in and contribute to the development of the society.

The Problems

In Nigeria, the Universal Basic Education (UBE) scheme, which is free and compulsory has expanded access to secondary and tertiary education, increasing concern for vocational skills development, particularly in the context of teaming youth unemployment. Nigerian youths are said (Gabalen, oni and Adekola, 2000) to be confronted with poverty, unemployment, urbanization, lack of capacity and skills needed to move to the economy forward as well as lack of necessary productive skills to keep body and soul together. Available information from the National University Commission (NCU, 2004) reiterates the massive unemployment of Nigerian University graduates.

Global education aims at extending the students/teachers awareness of the world in which they live by opening them to the diverse heritage of thoughts, actions and creativity Ikpe, (2005). It places particular emphasis on the changes in communication and relationship among people throughout the world, highlighting such issues as human conflict, economic systems, human rights and social justices, human communality and diversity, literature and culture, and impact of technological revolution (Hanvey, 2001).

Implication of Automation and Globalization for Education: Rising Skills for Workforce in a Global Economy

Globalization is impacting on the type of knowledge, skills and values needed to thrive in the global economy of the 21st century, raising skills and education qualification requirements:

- Students who obtain functional education will be at a greater advantage; some post secondary education, vocational/technical training will essential for an opportunity to support a family.
- The ability to produce, select, adapt, commercialize and use knowledge is critical for sustained economic growth and improved living standards. Knowledge is the most crucial factor in global economic growth, having become the driver of sustained economic development. According to World Bank Report (1998/99), today's most technologically advanced economies are truly knowledge based, creating millions of knowledge-related jobs in an array of disciplines that have emerged overnight (World Bank, 1999).
- The accelerated pace of ICT development has made access to knowledge a crucial requirement for participation in the global economy. It has altered the speed of production, use and distribution of knowledge. A country's capacity to capitalize on the knowledge economy ultimately rests on how quickly it can adjust it's capacity to generate and share knowledge. "Brazil, China, Costa Rica, India, Malaysia and Romania have successfully created with the assistance of

relatively effective education systems, information technology (IT) niches that allow them to compete in the global market" (ILO, 2001).

Prospects and Challenges: Linking Functional Education and Creativity

I. Freedom approach in curriculum instruction

A good education system gives students the freedom to recognize their capabilities and individual potentials. In this way, as Forte (2009) elaborates, in order to let students have the freedom to learn, creating a new classroom atmosphere where thinking, questioning and imagining is encouraged, and is not hampered, is critical. In this context, education should foster students to work collaboratively; ask questions and act creatively about ideas and issues across a range of disciplines. As creative thinkers, they try to imagine and explore alternatives, and to think in a different manner. Such an approach is required for a solid academic foundation as well as in order to enhance their intelligence, including "soft skills" such as understanding, empathy and communication skills. According to Dialogue magazine (2011), the use of different learning materials and various resources allows students with various principal learning styles to understand information in the most effective way. The learning is fostered through multidimensional interactions between students and teachers. To learn on their own, the youth need an unlimited time to play, explore, become bored, overcome

boredom, discover their own interests and pursue those interest.

Gray (2011) opined that freedom helps students develop their analytical and critical reasoning skills with particular emphasis on exploring and evaluating competing claims and different perspectives. Education leads to greater personal freedom through greater competence, if it becomes organized to consider diverse perspective. Student's freedom to learn requires the teacher's freedom to teach and these are in a close relationship with each other. The term 'freedom' in education, however, is often misunderstood to imply that the teacher has a passive attitude and that guidance and supervision should be abandoned. In contrast to this view, in my opinion, education plays a crucial role and significantly determines whether its outcome will be "passive imitators" or "active, creative contributors". In line with our opinion, the aim of education is an inward freedom i.e. a freedom of expression and freedom of inquiry.

ii. Creative teachers

Creative teachers according to Simplicio (2000) are willing to change and welcome new experiences; they aren't afraid to go off the main track or step into the unknown. Teachers are key figures to implement change, but they need support to understand and accept creativity in their practices. Creative teaching may be defined in two ways: firstly, teaching creatively and secondly, teaching for creativity. Morris (2006). Teaching creatively can be described as teachers

using approaches to make learning more interesting, engaging, exciting and effective. Teachers have to attract the students' interest and attention in a new way and as a result, the development of creative approaches is called for. Recent literature suggests that creative individuals are more likely to engage in entrepreneurial behaviour according to Ward (2004). The concept of creativity is one that is often discussed in conjunction with entrepreneurship because the creative thinking is an essential element in the formulation of business ideas and is necessary in every stage of business development and execution. Amabile (1998) opined that creativity has usually been defined as the production of novel ideas that are useful and appropriate to the situation. It means escaping from the existing perceptions and concepts to open up new ways of looking at and doing things. Creativity has also been seen in literature as a form of knowledge creation and a way to benefit learning. In addition, creativity and innovation have close links with knowledge and learning. Hence, creative education according to Morris (2006) involves a balance between teaching knowledge and skills, and encouraging innovation.

iii. Practical skills for students

In order to efficiently prepare for fast changes in society and work environment, creative and functional education should provide necessary knowledge and practical skills for students who are trained for management and entrepreneurship. Accordingly, students

have to be encouraged to pursue creative and logical thinking and included in the creation of case studies. Tools based on critical thinking depend on careful analysis, evaluation, and reasoning including both deductive and inductive reasoning and both analytical and systems thinking. Some of the tools provide ways to summarize and communicate existing knowledge, others focus on the collection, analysis and display of new data. They are useful in understanding the existing knowledge, gaining additional knowledge, developing, and testing changes.

iv. Curriculum innovation

The course curricula has to be revised in view of the experience acquired from either the entrepreneurship environment or another environment, depending on the type of the curriculum. It is necessary, however, to stress that there is little documented evidence of what specific factors within the curricula are effective in fostering abilities of students through curriculum innovation education. In this context, current educational systems need to adopt new methods and strategies that are able to support the educational goals set and ensure the freedom of learning and teaching.

v. Developing education strategy based on freedom of learning and teaching in curriculum and instruction

The creative practices in education should help learners work on building their knowledge by defining things which are especially important to them, and in the process, strengthen their sense of self and

individuality. They also involve developing students' personal qualities, including a strong sense of responsibility to oneself and to others as asserted by Association of American colleges and universities (2006). In other words, the new education model should be based on individual's growth and be able to foster the individuality, flexibility and personality enabling the development towards the following:

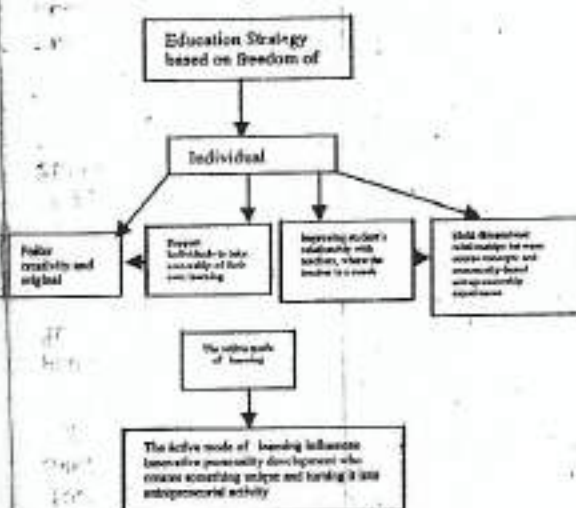
- ✓ Promoting achievement;
- ✓ Tackling barriers to inclusion
- ✓ creating a learning and teaching environment that is sensitive to individual needs
- ✓ original and creative thinking,
- ✓ intelligent decision-making,
- ✓ fostering young people's learning experiences through multi-dimensional relationships
- between course concepts and community
- ✓ support individuals to take ownership of their own learning processes
- ✓ improving student's relationships with teachers; where the teacher is a coach
- ✓ acquisition of knowledge for resolving problems,
- ✓ flexible adaptation to new situations,
- ✓ effective cooperation with others,
- ✓ learner centered pedagogy - It is focused on individual learners - their experiences, perspectives, backgrounds, talents, interests, capacities and needs with a focus on leaning; in this context, new education strategies should encourage interaction between teachers and learners. This approach to education strategy means an active mode of learning influencing

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innovative personality development that creates something unique and turning it into entrepreneurial activity (figure 1).

Figure 1. Developing education strategy based on freedom of learning and teaching



Source: M. Radovic-Markovic

Conclusion

Despite her firm belief in functional and qualitative education, the Federal Republic of Nigeria provides poor quality of education from the basic to the tertiary levels, resulting in increasing concern for vocational skills development, particularly in the context of teeming youth unemployment, extreme poverty, as well as lack of capacity to move her economy forward relative to global economic index.

A number of major trends are impacting the world in ways that have been and will continue to provoke higher skills. Computer technology in the work place has led to the automation of many job tasks, resulting in the disappearing of many jobs previously performed by humans. Similarly, the impact of globalisation has drastically reduced the demand for less-skilled labour. Nonetheless, economic experts forecast that highly skilled workers will increasingly compete for more intellectually demanding and higher-paying jobs, which will force the global community to offer not only strong traditional skills but also high levels of creativity and innovation in order to stay competitive. Labour market requires strong intellectual skills as well as the ability of workers to think independently, identify and solve problems on their own, work collaboratively, in addition to learning new knowledge and skills necessary in the global economy.

Recommendations

The phenomena of automation and globalisation have produced a new world order that is global, accelerating, knowledge-driven, agile, flexible and highly competitive. To survive in complex world economy, requires a proactive approach which include the following:

1. Computer/ICT studies should be made compulsory at all levels of educational structure in Nigeria. Computer/ICT knowledge/management is the driver of global economy. All students therefore need to be computer/ICT literate

in their world of work, being a world of global competitiveness. In today's technology-driven world, lack of ICT knowledge limits employment opportunities. Accordingly, all schools should be equipped with internet facilities.

2. Vocational/entrepreneurship education should be made compulsory to all senior secondary students. This is because vocational or entrepreneurship education provides the required skills for job creation, poverty eradication and wealth generation.

3. The curricula and course content in technical colleges, polytechnics and universities should be oriented towards current industrial needs and challenges of the modern economy. All students therefore, need a curriculum that is rigorous not only in terms of content studied but also in the kinds of skills demanded by the world of work.

4. There is need to develop more responsive education and skills policies that include greater diversification and flexibility and that allow for the adaptation of skills supply to rapidly changing needs and ensure that individuals are better equipped to be more resilient so that they can learn to develop and apply carrier adaptive competences most effectively (UN Task Team, 2012).

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