



Enhancement and Innovation in Higher Education in Nigeria through Technical Vocational Education and Training (TVET) and Entrepreneurship Education

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Abstract

It is well reported that one of the factors that plague higher education system in Nigeria is lack of intrigue to discover an innovative effort that should bear on research and development, thus the backwardness of Nigeria among the comity of highly developed nations globally. Widely reported also, is that effort to implicate innovative discoveries among students through research and development (R & D) is not given the desired attention in Nigerian higher institutions. With mind cast on a possible situation that the world economy could be submerged into catastrophic social vices, Technical Vocational Education and Training (TVET) with its entrepreneurship component, has been acclaimed a system that could circumvent the eventual odd. In this paper, need for creative empowerment through TVET and entrepreneurship education for creativity and innovation were considered; with emphasis on indicator factors to global economy. The paper concludes that to join in the bandwagon of improved economy, stakeholders in Nigerian education must not neglect TVET education.

Keywords: Enhancement, Innovation, Higher Education, TVET, Entrepreneurship Education

INTRODUCTION

The encouragement given to an individual to enable him explore avenues for possible improvement on already existing phenomena could be referred to as enhancement. In the course of exploration, if the individual succeeded in introducing some factors new to better improve the existing phenomena, innovation has taken place.

One of the factors that plague higher education system in Nigeria is lack of intrigue to discover an innovative effort that should bear on research and development; why? There is relatively inadequate encouragement (enhancement) given to scholars for innovative activities. What is currently going on in higher education pursuit in Nigeria is mere sponsorship for higher studies to acquire more certificates (degrees) using some outlets/boards as Tertiary Education Trust Fund (TetFund) and Industrial Training Fund (ITF) and other agencies. The desired effort aimed at adequate sponsorship into research and development offered to higher education scholars appears to be a wishful thinking among higher institutions' management.

Research and development institutes abound in Nigeria. We can identify some;

- i. International Institute for Tropical Agriculture (IITA), Ibadan, Oyo State
- ii. Project Development Agency (PRODA), Enugu, Enugu State
- iii. Nigeria Institute for Oil palm and Research (NIFOR), Benin, Edo State
- iv. National Root Crop Research Institute (NRCRI), Umuahia, Abia State
- v. Petroleum Training Institute (PTI), Warri, Delta State; now upgraded to University status
- vi. Electronic Development Institute (ELDI), Abba, Anambra State.

While the national education research and development council (NERDC), Abuja, is mostly saddled with curriculum affairs, what prevails in the research institutes is the practice to hire the services of already professionals. Effort to implicate innovative discoveries among students through research and development (R & D) is not given the desired attention in Nigerian higher institutions. If students are offered the opportunity to be exposed to research ethics, self-confidence to work independently could be inculcated with creative and entrepreneurship interest.

One other discouraging factor relating to creative activities is that, the Nigerians who are even by nature creative are politically biased. Greater majority do not perceptively address their thought in line with new ideas to make a change in decades of ideas that tend to be obsolete, archaic or outdated in the present scheme of contemporary developments. What is in vogue is scheming attitude that is mostly directed to misappropriation of peoples' economic resources and plot to embezzle peoples' wealth. The effect is usually economic meltdown, characterized by extreme poverty identified with such poor economic and social conditions as; inadequate food, poor education and low level of technology, with its attendant unemployment syndrome, bickering and squabble. With poor education, people go all the way to survive with vigour and are applauded when success is achieved. In essence, success is rarely assigned to excellent performance in intellect and wisdom but to the level of affluence an individual exhibits in the society no matter the source of the wealth.

As a result, many Nigerians abandon their potentials and tend to devise any dubious means to acquire wealth at the expense of dedicated academic diligence and dignity; of course, because individuals are not encouraged or recognized on the basis of their intellectual wealth and creative effort to enhance education system. The discriminate social invalidated surge to and attitude in favour of affluence by Nigerians discourage academic assertiveness and conscientiousness to create and make a breakthrough, in response to economy of the country. In this paper, need for creative empowerment through technical and vocational education and training (TVET) and entrepreneurship education for creativity and innovation are discussed; with emphasis on indicator factors to global economy.

Signal, Threats to Global Economy

The economic recession witnessed by many nations in 1929, 1981 and most recently 2008 indicates that the world economies might one day get submerged into different kinds of catastrophic failures; it may lead to unprecedented social vices such as disaster and terrorism (Uzoagulu, 2012). For instance, World Bank report 2001, revealed that due to global economic recession in 1981, most part of 1980s and 1990s witnessed negative economic growth with a per capita income growth rate of 2% in 1998 (Awogbenle & Iwuamadi, 2010). This postulation indeed demands concerted efforts of patriotic Nigerians individually and collectively to strategize a rescue mission aimed at circumventing such eventual situation. Since government

cannot provide all things, one of the options could bother on embarking on youth empowerment through: entrepreneurship education and practices, technology and vocational education and training (TVET), and adequate environmental resource management.

Need for Creative Empowerment

Creative empowerment should be viewed from the perspective that, currently there are numerous emerging trends of events in the society that require creative problem solving approaches (Anyakoha, 2013); adjudged with information explosion in which people operate in a knowledge economy (Okoye, 2013b). The belief is that many individuals have creative potentials to evolve workable solutions to their challenges and make relevant and significant progress and impact their families and communities.

Unfortunately, the sorry to say condition is that, the potentials often remain dormant and undeveloped especially among the youths (Anyakoha, 2013); and so, they remain unemployed, since the skills acquired at the college or tertiary education level are neither relevant to the demands of labour market nor good enough to empower them become self-employed (Okafor, 2011; Okoye, 2013b).

Unemployment can be grouped into three;

- i. Unemployed who have never experienced what it is to be employed
- ii. Unemployed who lost their job due to retrenchment or other factors; and
- iii. Unemployed personnel who are retired from service and who may no more be productive to the economy.

Many of the youths fall into the first category. In Nigeria, youth age is between 18-35 years (ILO, 2005); affirmed by Nigeria's National Youth Development Policy, 2001. Unemployed are those who are potentially active and qualified, looking for job and willing to work but are without job.

Data from Manpower Board and Federal Bureau of Statistics (Awogbenle & Iwuamadi 2010; Emeh, 2012; Okoye & Okwelle, 2014) show that youth population in Nigeria is 80 million people out of 140 million Nigerians in 2006 (Nigerian Population Commission, 2006). It implies that about 60% of the total population are youths. According to National Bureau of Statistics/World Bank (2012), 80% (64 million) of youths are without job, and about 1.6 million of them underemployed (US Embassy in Nigeria, 2012). The remaining 40% of the total population in majority comprises the less productive people.

In 2012, the population figure rose to 168 million Nigerians (US Embassy in Nigeria, 2012). Even more, the Nigerian population is about 170 million people currently (African International Television – AIT, 5.30pm Documentary review on 13/08/2014). By logical reasoning, the youth population would have been above 76% of the total population in 2014. It implies that about 130 million youths are jobless in Nigeria.

This information tends to paint a picture showing that the formation (curriculum and educational system) for preparing youths ready for world of work is practically and/or entrepreneurially inadequate. As a result, little effort is thus put forth by graduates to venture into any self-paid engagement because they lack the skills (Okoye & Okwelle, 2014). In this dimension, many schools of thought have made strong cases that TVET and entrepreneurship education and practices provide answer to the situation. Entrepreneurship education (National

Council for graduate entrepreneurship, 2007; Onstenk, 2003), broadens the horizon for business exploration; and educates on how to utilize the skills acquired for profitable earning (Ohaewerei & Nwosu, 2009). On the other hand, TVET nurtures, develops, and practically orientates the individual for the purpose of transforming ideas into reality (Okoye & Okwelle, 2013). TVET gives a purpose oriented knowledge and skills that help individual to become focused and initiative.

TVET: Andragogical Strategy against Depressed Economy

With mind cast on a possible situation that the world economy could be submerged into catastrophic social vices, TVET has been acclaimed a system that could circumvent the eventual odd. TVET is the education for those who need it, those who want it, and those who want to progress by it (Okoye & Okwelle, 2013d). As it applies to the individuals, so it does apply to a country. It is the education for the country that needs it, want it, and want to progress by it.

Countries in the East and West of the world embraced TVET and have achieved progress in technology and also attained improved economy. For instance, in 1986, British government established university for industry to focus strategically and strictly on TVET (Butterfield, 2000); Australia in 1995 introduced Australian quality training framework (AQTF) and Australian qualifications framework (AQF) in their public training scheme specifically for vocational skills, referred to as public, technical and further education (TAFE) (Okoye & Okwelle, 2014); New Zealand runs national qualifications framework in TVET since 1990 (European Commission, 2012); Brazil runs dual system of education and training system. Students are streamed into specialized vocations and skills acquisition under the country's national service for industrial apprenticeship (NSIA) (Okoye & Okwelle, 2013). It may interest us to acknowledge that Brazil has arisen from third world background to become exporter of technology ware; most of the luxurious buses in Nigeria are imported from Brazil. For decades, United States of America (USA) had established university of technical education in New York, and introduced industrial art education from primary to tertiary education levels. According to a report by US Census Bureau (2002), due to functional education (i.e. education for skills and knowledge acquisition), self-employed individuals who have no paid employees operate three-quarters (3/4) of US businesses; nearly 80% of would-be entrepreneurs in the US are between ages of 18 and 34, who were encouraged to believe they can be successful in the areas of technical and vocational training (Office of Disability Employment Policy, USA, 2014). Currently, USA assumes champion in technology know-how and also classified among first class economy world over. China, Malaysia, Thailand, Japan and Germany have all embraced TVET on a very serious note and in different grand-styles for clearly articulated progression of learning in TVET.

Let us remind ourselves that, the vision of good tomorrow begins with a review of the wrong past. To join in the bandwagon of improved economy, stakeholders in Nigerian education must not neglect TVET education. TVET allows more relevant practical oriented curriculum necessary for industry, agriculture, business and other technical services (Okoye & Okwelle, 2014), and ensures that graduates of every level (primary, post-primary and tertiary) have some scientific and practical knowledge for either self-empowerment, paid employment, or further training (McLean & Kamau, 1999). Philosophers maintain that TVET activities are explicit about what the society needs and also integrated in vocational state of art in that community (country), creates relevance and makes links to learning in other key learning occupations good for the economy of the country. It is not only about manipulative skills

(manual work skills), it also has contents in cognitive curricular (knowledge focused). For instance, Chong Kim in 2010 had this to say in Okoye (2013b);

...if one is to merely sustain something that has been brought in from the outside, even if it was brought with good intentions, and a fair amount of dialogue between outsiders and insiders, it is not going to last...if creativity is empowered and is woven into building godly deoxyribo nuclei acid (DNA) in individuals and into the larger society, then it has a better chance to survive and be sustained...

The deduction is that people become more creative and innovative if education is delivered in a manner that the people could comprehend their environment and would be capable to act upon it; that is, to explore and exploit the economic dividends that accrue from the environment to their advantage.

Philosophical Proof for Enhancing creativity and Innovation Indigenously

Research findings show that individuals (craftsmen & artisans) drafted from indigenous background and exposed to andragogical training techniques (competency-based instruction; i.e. learner focused training) in vocations identified in their immediate environment most often express quick mastery and fast advancement in creativity and innovation (Bukit, 2006). In other words, if education is meant to bear on the people's cultural background and traditional manner of doing things, remarkable academic achievement would be recorded.

According to Okoye (2013b), in Denmark, there is an innovative organisation called DANIDA (Denmark Development Agency). Danida is responsible for standardization and integrating the local system of education in TVET; the agency introduced what is called bottom-up training technique, involving the native informal sector economy. Germany introduced a program called Berufskultur. In the program, the local people are granted the opportunity to formal schooling and later streamed into 2 – 3 years technical vocational education (Okoye, 2013c).

The integration of local and informal sector economy into formal TVET (education) for enhanced creativity and innovation is given a philosophical proof by Lev Vygotsky in 1978; a concept he called "Zone of proximal development (ZPD)". ZPD advocates learning experience associated to reality, which corroborates UNESCO (2001), that preparation for specific occupational skills to possibly enhance creativity and innovation should be closely related to the local environment. A Venn of sociological learning environment explains Vygotsky's ZPD in relation to TVET propagation in given environment (figure 1).

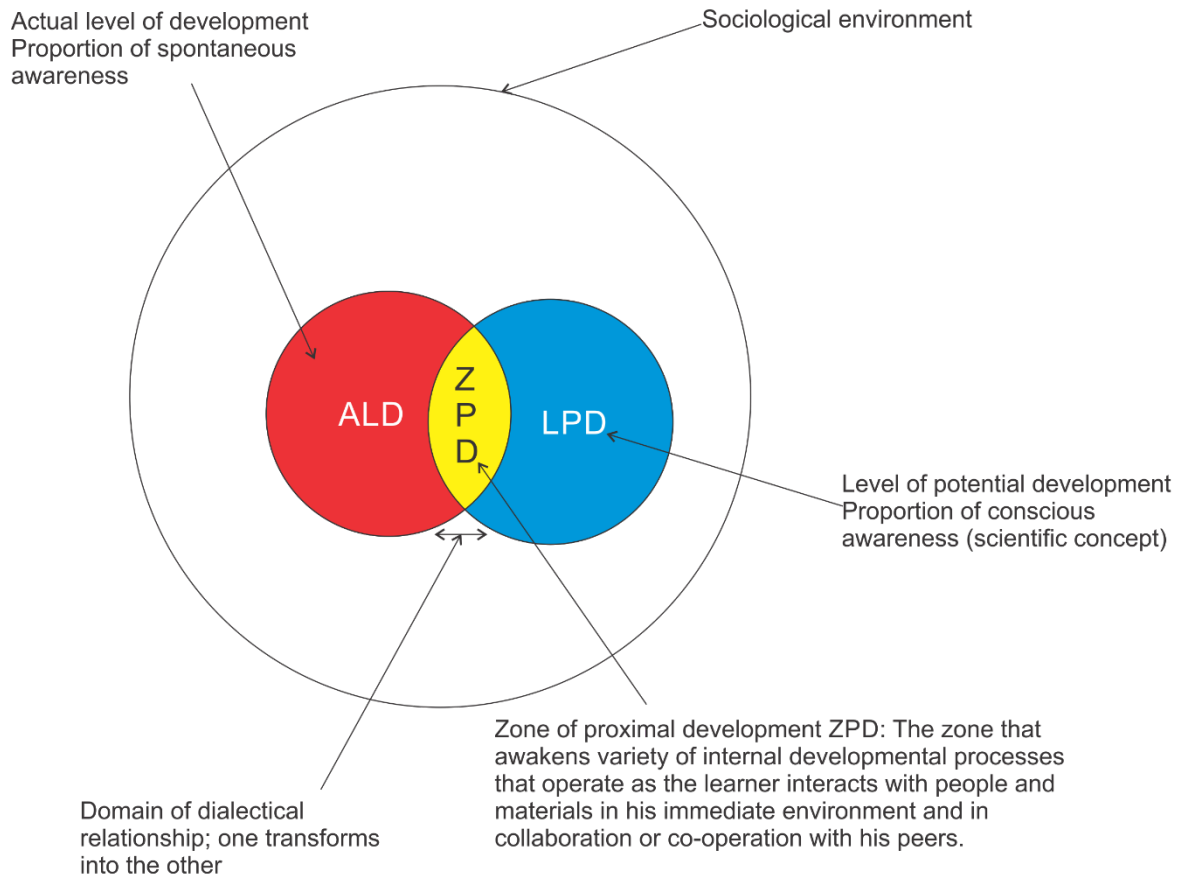


Figure 1: Venn of sociological Learning Environment

Adopted from Okoye (2013a): TVET as intervention mechanism for global competitiveness and wealth generation.

Curricula Separation: Import for Enhanced Entrepreneurship

Most Nigerian graduates cannot engage in entrepreneurial activities (to explore and exploit their environment) because they were not trained to acquire the skills necessary. They were in most contents streamed through the basic and general education curricula; the curricula which in great proportion favours literally knowledge. Little or no emphasis is made on creative problems solving skills. In the long run, students graduate almost with the same skills level at the inception of their studies. Under this condition, most of the graduates seek for few available paid jobs in both private and public sectors of the economy, and in most cases without success.

If students were groomed to acquire the self-sustainable skills, it is possible they engage in entrepreneurial and self-employed activities. The skills acquired through the general and non-specific (basic) curricula contents appear to be irrelevant in the present day job arena and labour market; it is not practically oriented (Dike, 2009); it is not competency-based curricula (Uzoagulu, 2012); it lacks entrepreneurial competencies (Anyakoha, 2012). Deductively, one concludes that the current operating curricula in Nigeria are deficient in entrepreneurship competencies needed by learners to engender self-confidence and independent thought for creativity and innovation. Therefore, if curriculum does not encourage mental, physical, social abilities and innate competencies, then it is not for entrepreneurship.

Entrepreneurship curricula should be such that prepares students or individuals for entrepreneurial activities involving inter-personal and organisational skill; it should equip students to become entrepreneurs, through acquisition of self-confidence to operate

independently. One who explores the immediate environment and makes a living from what others neglected as worthless could be ascribed an entrepreneur. The courage to explore, in most cases, comes from entrepreneurship mentorship (education). Education (mentorship) offered to encourage innate abilities inspires one to realise his potentials to venture.

In this disposition, curriculum that should emphasize entrepreneurship education should not be the same with the curriculum that is meant for paid employment. The curriculum for entrepreneurial activities vis-à-vis, TVET education, which emphasizes skills acquisition, should be unique; it should emphasize autonomy and independence, innovation and creativity (Uzoagulu, 2012). It should bother on issues relating to risk taking for successful enterprise. Though emphasis would be on specific vocations, the entrepreneurial curricula must not be stigmatic on particular basic skills, but open to versatility of occupations. Scholars through the system should be able to choose from a score of occupations with specific andragogical processes (learning by practice).

CONCLUSION

Entrepreneurship education vis-à-vis TVET encourages skills acquisition, creativity, confidence and high level thinking knowledge necessary for creativity and innovation. When school system is enhanced through TVET and/or entrepreneurship education, both the healthy individuals and those with disabilities are favoured. It is an employment strategy that can lead to economic self-sufficiency for different categories of people; hence it should engage students on active methods that enable them release their creativity and innovation. Implicatively, entrepreneurial competency and skills should be built or acquired through hands-on, real life learning experiences. It is all about to develop the entrepreneurial attitude, skills, and knowledge which should enable students turn ideas into action.

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