

INNOVATIVE TRENDS IN NIGERIAN VOCATIONAL AND TECHNICAL EDUCATION IN A COMATOES ECONOMY

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Abstract

The paper gave an overview of the concept of vocational and technical education and economic development in a comatose economy. It also examined the goals of vocational technical education, roles of vocational and technical education, innovations in vocational and technical education in a comatose economy and the importance of technical and vocational education in a comatose economy. The contributions of vocational and technical education toward economic vibrancy in a declining economy were pointed out. The paper concluded that vocational and technical education will help to revive Nigeria's economy and should therefore be encouraged so as to enhance skill acquisition and self reliance among Nigerian's. Among other recommendations the paper suggested that vocational and technical courses should be more practical than theoretical, teachers should be part of the curriculum planning/review.

Keywords: Innovation, Vocational Education, Technical Education

Technical and Vocational education programmes have been in existence since the early 19th century. Decades ago, Technical and Vocational education was looked at as education for school dropout, mediocre and for those who are academically not sound. This stigma has been affecting Technical and vocational professionals here in Nigeria. This trend is changing gradually because Technical and Vocational education have come to stay since they prepare one for the world of work with which the individual becomes self-reliant and can make

contribution to the development of the society and give individuals the skill to live, learn and work as a productive citizens in a comatose economy. Technical and vocational education plays significant roles in the country's economic growth and development. It improves personal quality and builds the attitude of individuals which are necessary for adjustment to personal employment situation and also provides knowledge, skills and competence for individuals to function well as producers, worker and consumers and also to create jobs for themselves and others. The concern of this

paper is to look at the innovative trends in Nigeria's technical and vocational education that will solve the immediate problems in a comatose economy. Thus the curriculum content as means of delivery, evaluation and the teacher must be reformed to tow the line of the social changes to bring out the things that are needed in the school system for the teaching and learning of technical and vocational education subjects.

Muhuta (2007) states that the teacher is the only person who has the role and responsibilities of guiding the learner, training the young ones in school and bearing the pains of being a father to non biological child. Thus, equipping teachers to have necessary training remains a challenge for the nation so as to build the youths in the school and improve the basic literacy skills that are required for basic education that will create wealth and give job opportunities to members of this great nation.

Innovation

This means change or modification which is aimed at making something or somebody better by correcting or making changes to it. Innovation could be in any area of human endeavour. It is always for good intention According to Abba (2009), innovation is the process of initiating new ideas into a system that could possibly change the system from a dogmatic state to a dynamic one.

Vocational Education

Ulisan (2012) states that vocational education is charged with the responsibility of training and acquisition of expertise, skills and knowledge that are creative in nature. Thus vocational education is relatively related to occupation, trade and vocation in which a person acquires specific skills. It is a field of study that prepares individuals for gainful employment as a semi-skilled or skilled worker. Okorie (2001) Also sees vocational education as education whose primary purpose is to prepare persons for employment in a recognised occupation. It is accepted that when a choice of an occupation has been made, a suitable training is needed to enable the individual enter and progress in his chosen occupation. It is an educational system which is predicated upon the teaching of skills and also demanding professional or expert use of one's hand; One who requires this education can be self-employed.

Technical Education

Technical education can be seen as that aspect of education which involves the acquisition of techniques and application of knowledge for the improvement of man's surrounding. Technical education gives instruction in a skill or procedure, usually of mechanical type, at all levels between that of professional scientists or engineers and that of a skilled craft person (Brickman, 2009). Olaitan (2003) sees technical education as education planned for those who desire to earn their living in

occupations in which success is largely dependent upon technical information and understanding of the laws of science and technology as applied to design, manufacture, production and service. Akaninwor (2004) defines vocational and technical education as a type of education or training designed for preparing individual learners to earn a living and to be self-reliant. Therefore, technical and vocational education as defined by Uwaifo (2009) is the acquisition of skills and techniques in chosen occupation or profession to enable the individual beneficiary to earn a living. Furthermore, Musa and Shehu (2011) described technical and vocational education in terms of skills acquisition, manpower training, creation of occupation and job which prepare individuals for gainful employment as professionals in a competitive industry. Ojidun (2012) states that technical and vocational education worldwide is economic efficiency which results into massive production of goods and services in practical terms. This could be translated into training programmes that emphasize acquisition of practical skills which are enforce professionalization and skilled labour for the industry.

Role of Technical and Vocational Education (TVE) in a Comatose Economy

Technical and vocational education is the application of practical knowledge that the resources of the country would be transformed into goods

and services for a better quality of life in comatose economy.

It exposes individuals to the practical task of developing and producing goods and services to meet the needs of the citizenry during a comatose economy or at any period of time.

It also provides self employment; individuals are trained to acquire entrepreneurial skills. This also leads to the creation of wealth in a period of comatose economy.

It helps natural resources to be obtained and transformed into finished products that can satisfy human want nationwide, without seeking for help from other countries. Human resources are said to be the strongest productive base of any economy (Wanker and Wanker 2005). It is human beings that generate ideas, create opportunities and provide the manpower which directs the other source of production and ultimately lead to job and wealth creation.

Technical and vocational education can produce skilled technicians who can fabricate various local spare parts and machines for domestic and industrial use.

Importance of Technical and Vocational Education in Comatose Economy

Vocational and Technical education offers those careers that prepares students or individuals that acquired it with useful products using resources from their locality and manage their business enterprise for profit making

and help to alleviate suffering of the people.

Vocational and technical courses have those subjects related to application of skills during training, leads to the development of survival and competence. Acquisition of skills that can help the individuals exploit locally available resources and utilize those things which can help them to enhance sustainable development and also reduce the stress on government for unemployment especially in a comatose economy. Unemployment in Nigeria is real even before the current international alarm was sounded. This country has in reality, been labouring under a recession for a long time. Nigeria has struggled with declining economy right from oil boom of 1970's. The total number of people ready to work but are not working because there is no employment or work (Nwaokolo 2001). The issue here is the use of vocational/technical subject in Nigerian's comatose economy since those that acquire the skill will use their hands to establish enterprises where others can also be gainfully employed under them. Vocational and technical education studies is a source of technological advancement and it also aims at encouraging new manpower for employment and it will also offer continuing training for interested and qualified already in order for them to be current in their field of work and to increase their creativity.

This country cannot pretend that things are well while things are not well; there is no how the total number of Nigerian population can be accommodated

with jobs available in this country. That is why we are calling for the attention of people to think wisely before choosing any subject to study in school; to think of those subjects that can make them self employed at end of their study by the acquisition of the skill.

Trends in the Development of Technical and Vocational Education in Nigeria

Early technical institutions in Nigeria were provided by Early missionaries and colonists who were interested in providing vocational or technical education. The first purely industrial institution was established in 1856 in Abeokuta (Fafunwa, 2004).

In 1967, the National Technical Teachers' college was established in Akoka, Lagos to prepare individuals who had earlier acquired competence in technology and commerce to teach in technical colleges and polytechnics. In 1973, the federal government of Nigeria also established the Industrial Training Fund (ITF) for students of technology and engineering in institutions of higher learning. In 1976, the national board for technical education (NBTE) was established to supervise, co-ordinate and standardize training programs in polytechnics and colleges of technology. Technical Teachers' Programs (TTP) were established through decree 48 of 1987 at Gombe in 1977, Bichi in 1987, Potiskum in 1988, Asaba in 1987, Omoko in 1988, Gusau in 1990 and Umunze in 1990. Some polytechnics have departments of technical teacher education. Universities like the university of Nigeria, Nsukka also

have produced technical and vocational teachers, while some of the early technical institutions have been upgraded to polytechnics and colleges of technology like Ibadan polytechnic, Kaduna polytechnic, Institute of management and technology Enugu, Yaba college of technology and so on (Nkomi, 1999). The educational system popularly known as 6-3-3-4 came with introductory technology as an integral part of it; yet this country is said to be technologically backward because Nigeria cannot produce capital goods such as tractors, machines, drilling machines, cars, trains and so many others. Nigeria as a country cannot exploit her natural resources except with the help of foreigners who will normally provide the technology and expertise to undertake the exploitation of her natural resources. Also Nigerian's are unable to mechanize their agriculture; crude implements are still used for agricultural activities by a large percentage of those who are involved in agricultural production. Nigeria still depends on other countries for supply of spare part for industrial machinery. We are still unable to produce our own military hardware with which to defend ourselves when the need comes. With all the importance or roles played by the technical and vocational education in this country and all the attempt made in development of technical and vocational education including its goals in national policy on education (2004/ 2012). Unemployment and poverty still persist which is the fundamental reason behind the wide spread of child labour, child trafficking, street hawking, begging in

street, 419 fraudster, armed robbery, theft, drugs trafficking, ritual killing, terrorism, prostitution, stealing of national and local properties in this country. The presence of this vices means that the aim of technical and vocational education is not being achieved; it needs innovation and it must be innovated. Many innovations in the form of new ideas, policies and programs have been put in place by the federal government of Nigeria in TVE and all aimed at alleviating the constraints and meeting the challenges the nation is facing. Some of the innovations have yielded positive results. Unfortunately, some of the efforts made by the federal government do not seem to have yielded the desired results. It is against backdrop that the paper set out to identify some of the innovation, issues, constraints and challenges TVE education curriculum is facing and to suggest possible ways of ameliorating the situation especially in this period of bad economy.

Innovation in Technical and Vocational Education for Comatose Economy

Innovation means to introduce new ideas or methods, techniques, process or procedure for doing something. These may include changes in objectives, methodology, curriculum content; instructional objectives and evaluation in TVE in order to improve it. Innovations in TVE are very significant in order to meet the demands of man in a world that is rapidly changing. Nigeria as a nation has actively been supporting innovations in TVE over some decades all in a bid to make TVE education responsive to the

needs of the people and to global challenges and reforms. In 1999, the 2nd international convention was held in Republic of Korea. At this convention, the UNESCO and ILO in collaboration with member state and partner agencies adopted the acronym TVE (Technical and Vocational Education) as a genetic term to unite areas encompassing, apprenticeship training, industrial art, technical education, vocational education, occupational education, Career and Technical Education (CTE) (Maclean & Lai 2011; UNESCO, 2001). Nigerians tried to carry TVE into national development by such initiative which include the establishment of: -

- National Directorate of Employment (NDE)
- Subsidy Re-Investment and Empowerment Program (SURE-P)
- National Poverty Eradication Program (NAPEP)
- Better Life for Rural Women, Family Support Program (FSP)
- Family Economic Advancement Program (FEAP)
- National Accelerated Food Production Program (NAFPP)

Establishment of Technical /Vocational Colleges and Crash Training Programs for training teachers outside the country and colleges of education training teachers in the country

Some of the innovation stated have yielded positive result. In the area of self-reliance, how many of those self-reliant individuals can cater for themselves and their families or employ others and pay them what is acceptable as

salary? Nigerian's are noted to be backward in economic development. Nigeria is an African continent rich with both abundant natural resources and manpower resources but yet Nigeria is presently rated as one of the poorest nations in the world. Indices of such poverty and debilitating youth unemployment (Nawanegbo & Odigbo, 2013). Too many school leavers carry files around from one office to the other seeking for jobs thereby indicating the rate of unemployment. Nigeria at the moment is sustained by income from export of crude oil alone. But the crude oil is nothing to write home about, as the country right now is under recession meaning that the economy is under threat. For now the country is mono-economic dependent. The manpower resources of the country has not been judiciously utilized to harness potentials of the natural resources and manpower to place the nation among the developed economies of the world as no country can develop beyond the level of quality of the manpower resources it has (Ibeneme, 2009).

Ukpongson & Ezekoye (2015) stressed that Nigerian economy will only be sufficiently diversified and stable if the nations industrial base relies on multiple resources rather than on a single resource like oil and gas as the main and almost sole source of income in the country. There are productive assets which deserve attention these includes Technical and vocational education. Technical and vocational education is not fully activated. It is based on this that we call for

paradigm shift from boom and burst mode economic development into integration of local technology that gives self-reliance in Nigeria. As a matter of fact, technology development needs innovations so that Nigerian citizens will be technologically and vocationally relevant. Hence there is need for technological advancement/innovation in the area of technical/vocational education where there will be pure practical teaching of technical and vocational subjects only (skill empowerment).

The National Policy on Education (2004:30-31) describes vocational education as that form of education obtainable at the technical colleges equivalent to senior secondary education. It is designed to equip individuals with practical skills, basic and scientific knowledge and attitude required to function as craftsmen and technicians at sub-professional levels. In pursuance of this philosophy, the goals of vocational education are further outlined as follows;

- To provide full time or part time course of instruction and training in engineering, other technologies, leading to production of trained man power applied science, business and management.
- To provide technical knowledge and vocational skill necessary for agriculture, commercial and economic development.
- To give training and impart the necessary skills for the production of technicians, technologist and other skilled personnel who shall be enterprising.
- To train people who can apply scientific knowledge to solve

environmental problems for convenience of man and to give exposure or professional studies in the technologist.

All these goals must be achieved so that all the technicians, technologist and other skilled workers would not be wasted.

Curriculum Innovation and Implementation

Innovation, according to Mintron (2000) and Ajibola (2008) in Mbong (2010), is an idea, practice or object that is perceived as new by individuals or other units of adoption. In relation to curriculum, the word innovations include introducing new curricular content, specific curricular materials, instructional materials, model, method of organisation and educational principle. Curriculum is dynamic in nature. This means that it tends to change with time and with nature of changes in the society to respond very well to any nations educational needs. There must be effective concern about seeking for change or innovation in education system in Nigeria and in the Nigeria technical and vocational education programmes. The curriculum appears to be overloaded with inclusion/infusion of some core-cross cutting subjects and contents. There is still need to revisit the issue of TVE curriculum overload. One way of doing this is to increase the time from current 40-60 minutes allocated to a lesson in a day in the time table and teachers involvement in the curriculum planning. Nobody can use 40-60 minutes to achieve a practical lesson in TVE subjects in the school or in any other skill acquiring programme.

The teacher as defined by Ukeje (1996) is the hub of any educational system and the determinant of any educational quality. This is because at the end of everything the teacher gives the final analysis. It is the teacher who translates educational policy into practice and programs into actions. The national policy on education (2004), states that no education system can rise above the quality of its teachers. Matazu (2004), that if a child is the centre of education system, the teacher then is the pilot of that educational process. Ukeje (1996) reiterates that what he knows and can do, can make a great difference and what he does not know and cannot do, can be an irreparable loss not only to the child but to the society and posterity. Therefore the teacher's place in curriculum innovation and implementation is important. The paper is of the opinion that the curriculum innovation here will be toward meeting the present comatose economy of Nigeria, thereby guiding the learners on those careers that all lead to job creation in this country rather than each member of this country will all depend on the income from crude oil as our only source of income which is affecting us presently. Therefore the approach to teaching leads to the success or failure of any particular subject. TVE individuals are those prepared for war of labour market and going for war, one must go with war implements and must learn how to use them. TVE individuals must be equipped with how to use these tools and equipments before going for war of self-reliance in a comatose economy. People

should be aware that in the war front it is individual fight and when one lack what is needed to fight with, the person is in trouble. It is applicable to war of self-reliance. Therefore, technical and vocational education needs a lot of changes that will make this country self-reliance since this country can never survive without skill empowerment and it needs to be encouraged in a comatose economy which the country is facing presently.

Okebukola (2005) observed obsolescence and stereotyping among teachers in Nigeria. According to him, the major deficiencies of teachers are:

- lack of practical skills;
- poor classroom management and control;
- shallow subject matter knowledge;
- lack of self reliance and entrepreneurial skills;
- lack of professionalism and poor attitude to work.

Therefore the use of traditional and stereotyped methods of teaching TVE subjects is another issue that militates against TVE in our basic, secondary and tertiary schools. These are methods that hinder learning and understanding of TVE concept and principles. These methods do not give room for transfer of knowledge from one discipline to another, rather, they stifle understanding and do not enable students to acquire process and problem solving skills which would prepare them for proper self-reliance war.

Impact of Technical and Vocational Education in a Comatose Economy

Technical and vocational education is the key to success for building good economy. The view was supported by Awotunde (2004), who opined that effective utilization of technical and vocational education and implementation of the programme will inculcate the necessary skills and competencies that will help the youth to self reliant. This would lead to the much desired better economy. Amaehule and Enyekit (2010), explain that vocational and technical education equips youth with technological skills and managerial skills required to manage human and material resources of their own business.

Conclusion

This paper has shown that teachers should be involved in the preparation of the curriculum to be used in school since they are the ones to implement it in school. Also technical and vocational subjects should be encouraged in Nigeria so that people can be self-reliant and also can be able to give others employment. Also, technical and vocational education should go global. To developed countries globalization is bringing countries closer educationally, politically and economically. Finally, the paper has shown that innovation in a dynamic world shows that change is the only thing that is permanent. Therefore, innovation implies changes in different areas mentioned in this paper in order to achieve the goals of technical and

vocational education in Nigeria especially in this period of bad economy.

Recommendation

In the light of conclusion reached in this paper, the following recommendations are made to enhance the status of technical and vocational education in the country.

1. Ministry of education and other stake holders in TVE education should organise workshops, retraining programmes for TVE teachers on the use of innovative strategies for teaching TVE education to improve their pedagogy, So as to update their skills and knowledge in the new approach to be teaching TVE in practical form with the intention of equipping them for self reliance.
2. Technical and vocational educational programmes should be more on practical skills than theoretical skills.
3. Teachers should be part of the curriculum planning review. There should be deliberate efforts to get the needed equipment, machines and modern instructional facilities in schools or acquisition centres owned by the craft men to facilitate teaching and learning TVE courses.

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