

Scaling-Up Educational Intervention in Technical Vocational Education and Training for Sustainable Development in Nigeria

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Abstract

Any Education that is worthwhile must possess the quality of value, skills and knowledge. It must also be able to contribute to the development of the individuals in particular, and the nation in general. Vocational education is a programme designed to give training and impart the necessary knowledge, skills and attitude to individual who shall be economically self-reliant. Recognizing the place of technical vocational education and training in attainment of these objectives, the paper examine the existing Technical Vocational Education and Training educational programmes, it practices with the aim of improving on its content, to meet and achieving the vision of functional education for Sustainable Development Goals (SDG's) in Nigeria. Technical Vocational Education is based with many problems and challenges. Among the challenges are poor funding, inadequate available of equipment and tools, shortage of workshop and laboratory, frequent change of government, shortage of VTE teachers etc. Some recommendations on the scaling-up for a functional TVET programmes were proffered, that is, intensification of quality of instruction (methodology), proper funding, provision of equipment and tools, construction of laboratories/workshops etc. These will serve a long way to reposition SDGs on special needs education moving it from a focus of quantity to quality and functional.

Keywords: Scaling-up, Vocational Technical Education, Skills, Sustainable Development, Educational Intervention, Training.

Introduction

Vocational education is education that prepares people to work in a trade, a craft, as a technician, or in support roles in professions such as engineering, accountancies, nursing, medicine, architecture and law. It is education that prepares people to work as technicians or in various jobs such as trade or a craft (Wikipedia, 2011). Webster online dictionary defines vocational education as “training for a specific occupation in agriculture, trade or industry through a combination of

theoretical teaching and practical experience provided by many high schools in their commercial and technical divisions and by special institutions of collegiate standing (as a college of agriculture, a school of engineering, or a technical institute).

In today's economy, vocational jobs are becoming more and more important. This is why vocational education programmes are popular. Vocational education training provides career and technical education to interested students. These students are prepared as trainees for jobs that are based upon manual or practical fields jobs are related to specific trades, occupations and vocations (Theaudiopedia).

Instructors teach students procedural knowledge required for their field. Community colleges (informal education) have long been instrumental offering for vocational education. These colleges around the country provide certificates in various vocational fields. They also offer certain degree programmes that focus on some popular occupations. The vocational field expands each year to include fields that were at one time non-traditional to this area.

According to the training for vocational jobs required less education than degree programmes. They are also significantly less expensive. Instructors at this level of education use traditional methods of teaching. They incorporate the use of lesson plans, teachers resources, worksheets and other tools in this process. One difference to other education programmes is the on-the-job training component. Many student will have the opportunity to work in their field while being educated. Some will be asserted into valuable apprenticeship programmes (Glanz, 1997).

Some of the jobs in vocational fields include construction workers, blacksmiths and steel workers. Today there is other great choice of vocational jobs. This umbrella has broadened and diversified to include retail, tourism and cosmetology. Some portions of the information technology field are taught in vocational programmes as well. This allows students to decide from a vast array of career choices (Freeman, 1989).

The retail field is one of those career opportunities that allow for growth. Workers can start in training positions and work their way up to management. Most retail companies have their own training programmes for specific jobs. These possibilities make retail even more welcoming to new employees. Tourism is also a great field to consider in the vocational realm. This area includes planning trips to being a tour guide cruise lines are popular parts of this field and their employment opportunities are immunes (Wikipedia).

The vocational education Act of 1963 played a role in what this field has grown into. At that time, the government authorized an expansion and redirection of vocational education. The baby boomer generation was targeted to be supplied with multiple arenas for advancement. It was also the country's goal to retrain displace workers, who had lost jobs because of technology advancements. Today, vocational education programmes are rivaling those of four year universities. Students are rolling at unheard of rates than in time past (Wwebstar's online dictionary).

Parents find the offering of these programmes and community colleges exactly what they were looking for. There are terrific fields to consider with these avenues. Many of these jobs will provide children with a great living. There are also possibilities to move into other specialized career opportunities. The overall expense of this sort of

education will depends on the part of the country that you reside in. In most cases, the benefits well outweighs the expense.

Importance of Vocational Education

Vocational education refers to a system or course of student which prepares individuals for jobs that are based on manual or practical activities. Vocational education is traditionally non-academic in nature and is totally related to a specific trade, occupation or vocation. Because it is vocation based, it is called vocational education. Until recently, that is, until the end of the twentieth century, the aim of vocational education was to focus on specific trades such as automobile mechanic or welder and was therefore associated with the activities of lower social classes. Because of this, it attracted a level of stigma. Vocational education, in fact is closely related to the age-old apprenticeship system of learning.

But with the development of economics worldwide, the labour market became more specialized. The demand for higher levels of skill both in government and business sector started increasing. This led to the further development of vocational education through publicly funded training organizations and subsidized apprenticeship or traineeship initiatives for business. According to Africa Mouth Online Publishers, the importance of benefits of vocational education to individuals and the government are as follows.

1. Vocational education helps people in the better performance of their jobs as they acquire a great learning experience. Working professionals get a chance to hone their skills while making money.
2. Vocational education and training is a sort of introduction as it sets employees ready for the work place which comes in handy while performing various tasks.
3. Due to the nature of the skills it imparts, a student does not consider it a futility as compared to academic education.
4. Vocational education as the term itself denotes the students are specialized and therefore they have more chances of employment as compared to others.
5. Many students who are in dilemma whether they should attend college or not, vocational education really opens a completely new door.
6. It makes an individual responsible and independent whereas those who study regular courses lack in this sphere.
7. The career of one's own choice is one of the major benefits of this education. A vast majority of people are caught in the wrong jobs because they were in it for the sake of job, money, lack of alternative and professional compromise whereas an individual pursuing vocational education is already pursuing his dream job.
8. This type of education is a great asset to the economy. Our government need not import foreign technicians on higher wages as our own can do the required work.
9. Certain vocational skills acquired from vocational education teaches students the importance of manual work. The physical labour done under certain jobs makes them strong, healthy and active.
10. Majority of vocational skills are applicable all over the world and these create employment opportunities in foreign countries.

11. Technical programs develop the economy by bridging the demand and supply gap with highly skilled workers. It also gives students opportunity to take marketable skills from the classroom directly into the working world.
12. Better vocational education also attracts foreign investment and foreign exchange in form of foreign conglomerate and foreign students.
13. School drop-outs and adults can also receive this type of education as it provides an opportunity to learn a skills or trade. There are many well-paid career fields in which college degree is not required.
14. Another benefit is that hands-on-work activities allow direct application of acquired knowledge.
15. This education provides stable jobs as these are the jobs whose demand is never fulfilled.

The development of any nation to a great extent is hinged on the technological advancement of her citizen. Nigeria is rapidly growing every year in population with the available government jobs inadequate to absorb its youths after graduation from various tertiary institutions, This challenging situation worsen unemployment rate which leads to other social vices for instance, (stealing, thugery, kidnapping, armed robbery, cultism) among the youths. The high rate of unemployment in the country is not unconnected with the form of the Nigeria educational system which emphasises more on paper attainments without necessarily acquiring practical functional skills. The problems in policy and implementation for the educational system call for its scaling-up educational intervention (reformation) particularly in Vocational Technical Education Training to include acquisition of both practical and applied skills for economy recession recovery and National Development. It has become essential to scale-up educational reform or modification of courses content in Nigeria both in terms of creating new ideas in research to increase the value or local content (raw materials) for attaining the goals of sustainable development.

Sustainable Development

Sustainable development can be regarded as a long lasting quantitative and qualitative expansion of all aspects in society, but it social, cultural, economic, political and scientific or technological. Sustainable development also mean effective utilization of resources (human or material) to solve immediate problems and making sure that they are not permanently damaged or depleted (Okwonkwo, 2008).

The sustainable development in a country is measured by the ability of the country to make effective use of resources and conserves some for the generation.

Roots of poverty in Nigeria must be addressed for sustainable development

Atsumbe (2017) reported the following as some of the roots of poverty in Nigeria.

- i. Education and low technological development
- ii. Consumer nature of the nation's economy
- iii. Low level of development in the agricultural sector
- iv. Political illiteracy
- v. Low cultural heritage

Measures for poverty Alleviation and Sustainable Development

The success of poverty alleviation on a sustained basis is the concern of the stakeholders. Atsumbe (2017) enumerated the following measure to be taken.

1. The concepts of poverty, the poor and their needs should be clearly defined and researched into respectively. This is having a clear definition of poverty and who are the poor and what are their needs in the society.
2. Planning of poverty alleviation initiatives should adopt collaborative or participatory approach through involvement of stakeholders from the public and private sectors as well as the potential beneficiaries of the intended initiatives.
3. The private sector participation on poverty alleviation policy formulation should be motivated. This is relevant because of the observation of the technical centre for Agricultural and Rural co-operation of the private sector nor willing to invest if the potential profits are low.
4. Functional monitoring and evaluation teams should be put in place. The assessment will incorporate impact assessment of the initiatives on the target audience based on set objectives.
5. There should be regular orientation and reorientation forum for government officials in charge of poverty alleviation programmes on social, political attitudinal and economic issues and their implications on the success of failure of relevant initiatives.

The United Nations Educational, scientific and cultural organization (UNESCO) and the international labor organization (ILO) (2002) have defined technical and vocational education to be. “Those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic, and social life”.

Olaitan (1996) noted that assessing the needs in vocational technical education and training instructional evaluation is to identify education or instructional progress that requires corrective measures. The identification of areas of effectiveness that have been determined objectively by others is what is referred to as scaling-up educational interventions for sustainable National Development and used in view of the guidelines of the UNESCO and ILO. This is done under the implementable long term strategies by.

- i. Production of skilled people by VTET institutions for attaining the SDGs.
- ii. Provision of educational interventions and workable educational model for the Nigerian educational system.
- iii. Provision of adequate funding of ensuring successful expansion and institutionalization of promising educational intervention.
- iv. Provision of equipment/tools and laboratories/workshops of ensuring that education innovations have greater impact to benefit more students and foster policy/programme development.
- v. Provision of on-the-job-training, seminars, workshop s etc to facilitate deep understanding of the context and challenges facing the educational system in Nigeria to effective education programme delivery.

Production of Skilled People by Vocational Technical Education and Training (TVET) institutions for Attaining the Sustainable Development Goals (SDGs)

In recognition of the importance of education, the Federal Government of Nigeria (FRN) (2014) identified goals and objectives of functional education in the

development of Nigerians to become sound citizens who will integrate fully in their communities and to enable citizens to have equal opportunities to acquire education at all levels. The objectives are premised on the fact that affording the relevant skills to the individual, positive contribution to the development of the community as well as the nation is achievable. The realization of these goals is informed by the effective implementation of policies at the various levels of the educational system.

Vocational Technical Education and Training in Nigeria is identified using the area of training in school-based via the formal education system which is concerned with the training given and received within the school system. In the present economic situation, self employment is attained through TVET. Therefore, the importance of quality of instruction at primary school to tertiary institutions of education with Vocational Technical Education need to be revigorated and revitalized by training and imparting the necessary skills to the learners for self-reliance. According to Nsini in Olowe (2008), Vocational and Technical Education is an inclined education that should be effectively catered for through improved methodology in the process of transmitting knowledge which is goal directed entrepreneurially as a way of becoming self-employed.

Modification of Course Contents

Provision of Education Intervention and Workable Educational model for the Nigerian Educational System. This education deals with manpower training in professional areas as engineering agriculture, business, home economics, trade and industrial computer home economics among others. Okorie (2001) asserted that vocational technical education can be conceived as a comprehensive term referring to those aspects of educational process involving the acquisition of practical skills attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. This implies that for technology education to gain of globalization, it should be entrepreneurship oriented. According to Adah (2008) he stated that it is the art of organizing a business opportunity, and mobilizing resources. This education increases entrepreneurial self-efficacy, self-employment, risk-taking attitude to entrepreneur that creates business opportunities and train people with innovative skills to take the opportunities for starting new activities. It helps individuals to acquire business idea. This invariably implies that it is an educational process and training that helps individual to be empowered through the acquisition of skills and knowledge to raise their income and create wealth. Therefore, the philosophers and curriculum developers should as a matter of urgency inclusion of modified courses to improve a student learning of skills.

Adequate Funding

Provision of adequate funding for ensuring Successful expansion an institutionalization of promising educational intervention. In the World Bank synthesis report cited by Barau (2008) it has been noted that science and technology education is not structured regulated or funded in such a way as to elicit its full potential in promoting economic growth. This is properly due to embezzlement of funds by those in charge of the programmes which among what Ajoma (2009) has indicated in her citation of Olaitan (2004) and Asuquo (2005) as problem of Vocational, industrial and

technical education. The same inadequate funding shows up again in the form of poor enumeration of teachers and lack of overall equipment/tools and laboratories/workshops policy and strategy for vocational technical education sector to encourage teaching and learning skills and knowledge (Ezeji 2010). This inadequacy partly explains virtual absence of serious research and development work at tertiary level of TVET.

Vocational Technical Education is costly in term of equipment procurement and maintenance. For efficient and effective implementation of its programmes, adequate financial provision from government at all levels and non-governmental organizations should be made for the realization of its objectives Amos (2009) highlighted funding of vocational and technical education programme as inadequate. This implies that financial sustainability is essential for the development of knowledge which requires creativity and innovative measures to ensure that vocational technical education and training institutions are not deprived of needed resources for effective training of youths.

Provision of Equipment/Tools and Laboratories/Workshops for greater impact and benefit to foster Policy and Programme Development

This is the third strategy employed for the operatives of the TVET programme. Students in tertiary institutions of higher learning are engaged in the student industrial work experience scheme (SIWES). Attachment is supposed to be to industrial establishments similar to the ones students are expected to work in on graduation. Technical education students are expected to know enough to through direct experience of improve his/her job as a worker or a technical teacher. Teaching and learning of TVET requires adequate facilitates for experimental, practical knowledge and technological innovations. Nsini (2010) identified inadequate training facilities and stressed that about 50% of the institution running vocational technical education and training in Nigeria are yet to meet approved standards. This implies that basic facilities such as laboratories, furniture, electricity, machines, computers among other are not in adequate forms where they are even available. Therefore, technological facilities should be in good supply in technical and vocational institution at all levels for teaching and learning of this technical and technological oriented education programme.

Provision of in-service training, seminars, conferences workshops etc. to facilitate deep understanding of the context and challenges facing the educational system in Nigeria

Motivations are factors that direct and energize a person behaviours (positive or Negative). It is that condition which causes us or encourages people to act in a certain way. To have a motive means to have a reason for doing something. Hence, to improve Nigeria Education system, it is imperative to improve TVET status by creating more awareness among the people in the academic environment and beyond in the widest perspective Nwanake and Amaefule (2011) identified lack of awareness of TVET programmes at various levels of school as a shortcoming. Sensitization of citizen

through seminars, workshops, conferences, among others by teachers, educators and other stakeholders are essential to raising the awareness level of the citizen. This will further raise the intellectual tone of the society, cultivating the public mind, purifying the national taste, supplying the right mix of human resources and given enlargement and understanding of the ideas of the age.

Conclusion

The nation continues to experiences economic down turns of which the most severe is described as depression. An approach to solve this weathering economic depression mounting more programmes of TVET should be the priority. This is because of the potentials of developing individuals who can manage business or set up theirs. This paper in the needs and problems highlighted above conveys, the background that stimulate the scaling-up from the teaching/instructing method to new/modern innovative teaching strategies. Expository analyses of some innovative teaching strategies are given coverage which include (spread), that is increase users of the programme-youth communities and the larger society, but also long-term changes in practice and belief of what the beneficial have learnt (depth). Importantly, students could continue to effect the new idea after initial implementation in their place of endeavor (sustainability). Furthermore, the hope is that, it will serve as a call for action to focus step by step on scaling-up educational intervention in Nigeria.

Recommendations

Based on the findings that were gathered during the study, the following recommendations were made:

1. Federal, state, local government non-governmental organization, cooperate bodies and well meaning individuals should exert concerted efforts to ensure supply in all technical vocational institutions at all level the machines, tools and equipment involved in skills acquisitions.
2. Funds should adequately as a mater of urgency be provided by the government and non-governmental organization for TVET programmes.
3. Vocational technical teachers training and re-training service be redesigned and encouraged for competency based for effective and new skills in teaching and learning delivery.
4. Federal government in collaboration with research institutes and tertiary institutions should encourage research work and implementation of the relevant findings in TVET programmes.

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