

THE BEST PRACTICES IN TECHNICAL AND VOCATIONAL EDUCATION DELIVERY FOR NATIONAL DEVELOPMENT

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Abstract

This paper focused on Best Practices in Technical and Vocational Education Delivery for National Development. The concepts of Vocational and Technical Education, Best Practices and National Development were examined. A careful examination of the above-mentioned concepts indicated that where best practices are being utilized, it will enhance productivity and national development. Based on the conclusion drawn, recommendations were made that the Nigerian government at all levels and TVET policymakers should make a mandatory provision for TVET institutions to establish effective and sustainable development. This collaboration could be very useful for the practical training of students and facilitating effective skill acquisition. Also, TVET institution's curriculum should emphasize more on work environment habit inculcation into students to make them abreast of the emerging trends in the occupation of work. Finally, adequate monitoring and supervision of the SIWES program should be intensified as well as developing a synergy of information between the TVET institutions and 21st-century workplaces.

Keywords: Best Practices, Technical and Vocational Education. Training, National Development.

Introduction

One of the major parameters for measuring a country's economic growth, development and self-reliance is the extent of the country's development in vocational and technical education. Vocational and Technical Education (VTE) is therefore fundamental to the development and industrialization of nations. Thus the skills, abilities and competencies that are needed by the nation are embedded in vocational and technical education, which are central to a nation's social and economic emancipation. Consequently, any nation that believes in education as an instrument par excellence for national development has to recognize the significance of vocational and technical education and accord it the desired attention and support that it deserves.

According to Ozoemena (2013), the development of any nation hinges on the social

and economic contributions of its citizens. No nation can improve technologically, industrially and economically without developing a strong partner initiative in the creation of wealth, poverty reduction and employment generation with the required skills (Akpomi, 2009). Technical Vocational Educational and Training (TVET) with its relevant practical training components are widely recognized as the key to any nation becoming technologically relevant and internationally competitive in the world market. TVET is also regarded as the most effective means of empowering the citizenry to stimulate sustainable national development, enhance employment, improve the quality of life, reduce poverty, limit the incidence of social vices due to joblessness and promote a culture of peace, freedom and democracy (Federal Ministry of Education, 2000). According to Okwelle (2013), TVET

broadly refers to deliberate interventions to bring about learning which would make people more productive (or simply adequately productive) in designated areas of economic activity (e.g., economic sectors, occupations, specific work tasks).

Uwaifo (2010), described TVET as the training of technically oriented personnel who are to be the initiators, facilitators and implementers of the technological development of a nation. TVET thus equips people not only with vocational and technical skills but with a broad range of knowledge, skills and attitudes that are now recognized as indispensable for meaningful participation in work and life generally. It entails the enrichment of the capabilities that influence the effective psychomotor or cognitive domains of the individual in readiness for entry into the world of work to satisfy their intrinsic and extrinsic needs, values, work and aspirations such that local and national needs would be met. According to Nwogu and Nwanoruo (2014), vocational, technical education and training is a form of Education that leads to the acquisition of practical skills, which will enable an individual to be gainfully employed in a chosen occupation to become self-reliant, to contribute to overall national development.

In the view of Alhasan and Abdullahi (2013), technical and vocational education and training play an essential role in improving the well-being of youths and communities and increasing productivity, empowering the individual to become self-reliant and stimulating entrepreneurship. Therefore, good quality TVET is an essential tool for achieving more sustainable empowerment among the youths since it helps to promote the development of skills, knowledge, values, understanding, actions and behaviour of people. It also serves as an integral part of national development strategies in many societies because of its impact on human resource development, productivity and economic growth.

Similarly, UNESCO (2009) defined

TVET as all forms and aspects of education that are technical and vocational in nature, provided either in educational institutions or under their authority, by public authorities, the private sector or through other forms of organized education, formal or non-formal, aiming to ensure that all members of the community have access to the pathways of lifelong learning. According to the Federal Republic of Nigeria (FRN) (2013), the objectives of TVET are to:

- (i) Provide trained manpower in applied science, technology and commerce particularly at the sub-professional level;
- (ii) Provide the technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development;
- (iii) Provide people who can apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of man;
- (iv) Give an introduction to professional studies in engineering and other technologies;
- (v) Give training and impart the necessary skills leading to the production of craftsmen, technicians, and other skilled personnel who will be enterprising and self-reliant; and
- (vi) Enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

This implies that TVET is a type of education given to individuals to develop their creative and manipulative potential for the benefit of humanity. The goal of education and TVET is therefore to fight ignorance and illiteracy to produce competent human resources for economic and social development. According to Uzoagulu (1999), TVET demand that: (i) individuals be exposed to their environment for positive interaction; (ii) individuals be oriented to various practical skills and scientific knowledge; (iii) innate abilities of individuals be identified and recognized; (iv) individuals be enabled to develop and harness abilities identified; (v)

challenging tasks to be provided for individuals; and (vi) practical and guided discoveries be applied on the individuals to attain perfection. TVET can also be seen as a planned program of courses and learning experiences that begin with the exploration of career options, support basic academic and life skills, and enable achievement of high academic standards, leadership and preparation for industry-defined work (Kukoyi, 2009). This author emphasized that TVET prepares learners for careers that are based on manual or practical activities, traditionally non-academic and related to a specific trade, occupation or vocation. Kombe (2010) posited that in contrast to general education, learning in TVET is centered on applied as opposed to academic; practical as opposed to theory, and skill as opposed to knowledge

Concept of National Development

Development is the transformation of a community into socially, economically, politically, educationally, orderly, and materially desirable conditions, intending to improve the quality of life of the people. It is also referred to as the uniform distribution of resources, the integration of the people into the national economy; it is a socio-economic process that seeks to bring about a more equitable distribution of resources and income within the society (Mundi, 2008).

According to Ohagwu (2010) development is not the same as change, growth, or modernization; rather, it refers to a society's character, content, and path as well as the decision regarding goals and ideas aimed at realizing human potential. Gboyega (2002) in Musa (2020) described development as a concept that encompasses all efforts to improve human conditions in all contexts. It implies an increase in the material well-being of all citizens, not just the most powerful and wealthy, in a sustainable manner so that today's consumption does not endanger the future. It also implies the elimination or significant reduction of poverty and

inequality of access to life's pleasures. It aims to enhance individual livelihoods, physical safety, and chance at a better existence.

National development is more than just physical infrastructural development; it is multi-faceted and covers things like the development of economic, political and social components. It therefore, includes industrial development, provision of full employment to a nation's citizens, good and affordable health care, provision of good drinking water, provision of clean air and a good standard of living. Achieving sustainable national development requires putting on-ground educational programs that offer quality skills in line with global best practices. A quality technical vocational education and training (TVET) program will contribute tremendously to Nigeria's national development; it is, therefore, a panacea for sustainable development problems faced by nations in this contemporary era (Magaji, 2017).

Concept of Best Practice

Practice is the actual application or use of an idea, belief, or method, as opposed to theories relating to it. It is also the customary, habitual, or expected procedure or way of doing something. Other words for it include application, exercise, use, action, operation, implementation, execution, enactment, and doing. In the context of this paper, practice is the actual implementation of the policies enacted for TVET; that is, the performance of actions or exercises to realize the expectations of TVET policies.

According to the Florida Department of Education (2015) in Oviawe, Uwameiye and Uddin (2017) Best practices are new or refined programs relevant to (but are not limited) to academic affairs, students' affairs, workforce education, economic development, educational technology, innovation, entrepreneurship and administration while Amoor (2017), defined best practice as a method or technique that has consistently shown results superior to those achieved with

other means, and that is used as a benchmark to improve standards of a profession or organization. The author further said that best practices are used to maintain quality as an alternative to mandatory legislated standards and can be based on self-assessment or benchmarking.

Therefore, best practices in teaching Vocational and Technical Education and Training (VTET), refer to what the government, professionals and teachers can do to improve or standardize the teaching and learning of vocational and technical education and training (VTET). In Nigeria, this includes the provision of adequate equipment in the students' workshop, the physical environment of the workshop, physical needs of the students, positive language and behaviour in the workshop for students, strategy to motivate the students, exposure of students to the targeted vocation and dynamic and effective use of tools.

Challenges of Technical and Vocational Education (TVE) in Nigeria

Like many other aspects of the Nigerian educational system, TVE is bedeviled by many surmountable challenges and according to Nwuso and Micah (2017), these challenges have rendered it ineffective, inaccessible to the majority and unproductive. Some of the major challenges include the following:

(i) Institutional and infrastructural inadequacy: Despite all that is said about the importance of TVE as important machinery in the process of national development, there is a general shortage across the board in the number of institutions that offer courses in TVE. The secondary schools that are designated as technical institutions are crippled with structure deficiency in terms of offices, workshops, classrooms, tools and equipment. Where these are available, they are dilapidated, archaic or non-functional. Some of the tertiary institutions established to provide TVE at a higher educational level have now been converted to conventional colleges and universities, placing more

emphasis on arts and social science courses at the detriment of their mandate, goals, and objective.

(ii) Man-power deficiency: One of the nagging challenges of TVE in Nigeria is the endemic shortage of manpower in these few available. Technical Institutions or Colleges out of the few available teachers/lecturer, many lack the requisite qualification, training, skill or capacity to appropriately inculcate practical and theoretical knowledge. Apart from that, many workshops/laboratories do not have technologists/laboratory attendants to oversee practical activities. Where these are available, they are mostly secondary school leavers or drop outs who have little ability to plan, guide or assist in practical activities.

(iii) Budgetary and subvention deficit: Another challenge that has plagued all TVE institutions both at federal and state levels is the challenge of funding. TVE is an expensive venture but with outstandingly matchless economic developmental benefits. With the issue of underfunding, and inappropriate or poor subvention, many of these institutions rely heavily on theoretical instructional methodology, and rote learning is the order of the day.

(iv) Public negative perception: of all the challenges facing TVE, negative public perception is responsible for low patronage by the Nigerian youths as against social sciences, arts and general sciences taken from the secondary level. Parents abhor seeing their children attend technical schools and at the tertiary level, the majority prefer law, accounting, business administration medicine, etc to technology education, creative arts, home management and hospitality agriculture, and related sciences. With a chunk of students gaining admission into these other preferred courses, TVE unfortunately is at the bottom of the food chain.

(v) Reluctance in policies and recommendations implementation: There are so many policies to drive the progressive development of TVE at all levels and make it

the envy of all. Unfortunately, many of these policies remain on paper with little or no attention. Many have argued that one of the problems of TVE just like that of the whole Nigerian educational system is the poor commitment to implementing educational policies. The government, educational agencies and individual institutions sometimes are guilty of procrastination in the implementation of reforms needed to improve the quality of TVE.

(vi) Substandard teaching-learning process and unavailability of strict supervision. Poor standard teaching facilities, such as classrooms, furniture, team-board projectors, textbooks, and pedagogy unfortunately a challenge preventing TVE from serving as a veritable tool for national sustainable development in Nigeria. There is also the challenge of poor curriculum design and the unavailability of the TVE Quality Assurance Unit to ensure that standards are sustained at all times.

Practices in Technical and Vocational Education and Training delivery for National Development

The following are the practices that are geared towards developing alternative education programs for TVET students to gain valuable work experience with industries found within and around the educational institutions that are key for meeting manpower needs in industries (Soares, 2010). The key elements of a smooth transition of school classroom theories to work practice in an occupation or place of work according to Scott (2014) are collaborative partnership, integrated curriculum, technological advances, adaptable friendly workers (industry-based supervisor), comprehensive career guidance, work-based learning; and a step-by-step approach. These practices and key elements of school-to-work transition use collaborative resources, relationships, and activities to build alternatives to classroom theoretical instruction that would develop a student towards manpower needs for national

development.

The best practices in Technical and Vocational Education and Training delivery for National Development

According to Oviawe, Uwameiye and Uddin (2017), the following amongst others are the best practices in TVET

(1) Funding and Shared Resources for Sustainability: School-workplace collaboration can contribute to sustaining newly developed educational innovation and reformation in vocationalization (Ikeoji & Agwubike, 2006) over time as well as create avenues for financing TVET on specific research into job tasks as required by funding industries to meet a given need or modernization of the workplace. In so doing, industries can develop school-workplace collaboration relationships of the industry that would enhance a sustainable workforce that would meet the industry's manpower needs. To this end, Offiong, Akpan & Usoro (2013) opined that funding of TVET institutions through an endowment, partnership with companies and non-governmental organizations, the establishment of internally generated revenue projects, parent Teachers Associations, and Alumni Associations.

(2) Curriculum and Instructional Transformation: School-Workplace collaboration can result in meaningful changes to traditional TVET curriculum and instructional practices. Employers of labour play a key role in ensuring this transformation of students from school to the workplace upon graduation (Obioma, 2015; Scott, 2014).

(3) Adequate Infrastructural Facilities for Vocationalization: A major issue of under-funding education in Nigeria is the existence of inadequate and decaying infrastructures in our TVET institutions (Obioma, 2015). For TVET institutions to meet the manpower needs of the 21st-century workplace, adequate provisions of the right technological work-based learning facilities to train the TVET students on the current practices involved in the 21st-century world of work must be made

available for effective and functional learning to take place.

(4) Academic and Social Support: School-workplace collaboration can create sustained academic and career navigation supports for TVET institutions and employers. The transfer of knowledge from schools to workplaces and workplaces to schools is imperative to enhance a better school-to-work transition of students upon graduation. In the same way, employers of labour providing social support to TVET institutions and students is vital also in building highly-priced quality relationships in school-workplace collaboration.

(5) Entrepreneurship and Skill Development: Entrepreneurship education is a lifelong learning process and a tool through which socio-economic and political development could be attained if properly planned, funded and implemented (Alabi, Alana & Bahal, 2014). This education would promote job creation, reduce unemployment and alleviate poverty in Nigeria.

(6) Assembling Political Will for Vocationalization: Employers of labour, curriculum planners, policy makers, education stakeholders and lawmakers can identify what tools and information are required to make school-workplace collaboration evidence-based best practices in the development of TVET students, to secure employment or be self-employed upon graduation from school and thereby improving TVET in Nigeria. The political will of the government of the day is paramount in fostering the goals and philosophy of vocationalization and this can be achieved through: ((i) developing an adequate and up-to-date database to track the outcomes of industry collaboration participants and the student's demographic characteristics; and (ii) evaluating the return on investment from school-workplace collaboration from students, TVET institutions, and industries (Soares, 2010).

The Utilization of the best practices in enhancing positive National Development

There is no skepticism about what tomorrow might bring about vocational and technical education in Nigeria. Therefore, it would be possible if we can develop a system that makes learning more interesting, involving and permanent to the students in the various aspects of our educational program. The following will therefore justify the brightening of vocational and technical education delivery in Nigeria:

(1) Self-employment: Today in Nigeria, the high incidence of school dropped outs among secondary school students clearly highlights the importance of career development, which is achievable through vocational and technical education. These students who could not fit into the academic-oriented curriculum would need practical skills to enable them to function profitably in society. Secondly, the graduates from these existing school system invariably enter the job market seeking employment that hardly exists in this country today. To draw the majority of these job seekers out of the unemployment market, vocational and technical training in secondary school becomes the most potent elixir. This again requires the training of the teachers that would impact these skills to students in the primary, post-primary and tertiary education levels.

(2) Technological improvement: In the future, it is hoped that vocational and technical education will adequately equip students to be more effective in this age of science and technology and to raise a generation of people who can think for themselves and respect the dignity of labour and propel its citizenry into a blossom economic development. What is needed today and tomorrow are workers with good technical skill backgrounds, rugged enough to transform Nigeria into a positive technological breakthrough with the ability to meet its immediate demand. A bright future is possible if we are willing and able to re-examine the vocational program and its value

in our educational system. As the world around us is changing fast there must be an increased emphasis on vocational education.

(3) Higher standard of living: Vocational and technical education aims at helping society maintain its material civilization by enabling the individual to keep pace with the rapidly changing Industrial and technological development. Vocational education must be seen as an instrument for transforming Nigeria's resources into finished goods and services that will promote a higher standard of living. Since Nigeria is a country that is trying to industrialize rapidly, emphasizing vocational and technical education right from the elementary level will surely guarantee a solid foundation. In effect, training for a vocation is a lifelong process and must be made part of Nigerian culture, if the desired technological and economic growth will be achieved.

(4) Political stability: Vocational and technical education is a marginal enterprise serving the personal interest of a relatively few people in Nigeria today. It is also an essential component of any national policy for coping with the pressure of change and improving the quality of life of its people and designing a way forward for government processes. The future of the vocational program in Nigeria will give room to a dynamic government. This relates to the idea of the people and the change that has taken place in the political attainment of any nation. A government with good political ideology and technological improvement and with a focus and stable political institution often witnesses a stable educational system.

Conclusion

From the discussions in the paper, technical and vocational education is the engine of economic growth. No nation can prosecute a war without an army. In the same vein, Nigeria cannot develop without well-equipped technical and vocational institutions and functional outcomes. A lack of these could mean a missing link in Nigeria's development

policy (Dike, 2009).

Recommendations

The following recommendations are made:

(1) The Nigerian government at all levels and TVET policymakers should make it mandatory for TVET institutions to establish effective and sustainable linkages with the 21st-century workplace. This collaboration could be very useful for the practical training of students and facilitating effective skill acquisition.

(2) TVET institution's curriculum should emphasize more on work environment habit inculcation into students to make them abreast of the emerging trends in the occupation of work.

(3) Adequate monitoring and supervision of SIWES program should be intensified as well as developing a synergy of information between the TVET institutions and the 21st-century workplaces.

(4) All stakeholders in the TVET sub-sector should employ the school-workplace collaboration for enhancing workplace training. This will improve the quality of TVET programs in Nigeria.

(5) TVET institutions should encourage and give credit points to students who observe long semester holiday placement training in relevant industries in their field of endeavour in order to improve and boost the student working experience for a smooth transition from school to work.

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