BRIDGING THE MISSING LINKS IN THE IMPLEMENTATION OF TECHNICAL VOCATIONAL EDUCATION AND TRAINING CURRICULUM IN NIGERIA

Kagara, A. B. 1*, Ibrahim, D. 2, Kareem, W. B. 3

1,2,3 Department of Industrial and Technology Education, School of Science and Technology Education, Federal University of Technology, P.M.B. 65, Minna, Niger State – Nigeria

*Corresponding Author email: abdulkagara@futminna.edu.ng

ABSTRACT

The implementation of Technical Vocational Education and Training (TVET) curriculum requires some level of government commitment because of its nature and important towards reducing unemployment. Technical vocational education is a skill acquisition intervention programmes that target about learning wisdom which would make people appropriate and productive in designated areas of economic and technological activities. In order to meet the demand of this 21st century implementation of technical vocational education curriculum in Nigeria must in totality be overhauled by ensuring that what is needed to achieve its goal is put in place for positive outcome. This paper discusses the concept of technical vocational education and training and it’s important towards job creation, the nature of technical vocational education curriculum in technical vocational education institutions, technical vocational education curriculum implementation and the impediments of Technical vocational education curriculum implementation in Nigeria. It was concluded that TVET curriculum implementation faced a lot of challenges. Therefore, all stakeholders in the technical vocational education sub-sector should put hands in deck in order to improve the quality of technical vocational education programmes implementation in Nigeria for better outcome.

INTRODUCTION

The socio-economic revolution of any nation depends mostly on efficient Technical and Vocational Education and Training (TVET) programme. TVET is a universal acceptable practical skills acquisition programme for economic development of a nation (UNESCO, 2011). The Federal Republic of Nigeria (FRN, 2013) defined TVET as “a comprehensive term referring to 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”. TVET is seen by Atchoarena and Delluc (2001) as skills acquisition education which at the end of the training the learners acquire practical know-how and update, essential for self employment in a particular vocation, job or set of occupations. National Policy on Education stipulated the objectives of TVET in Nigeria as:
1. Provide trained manpower in applied science, technology and business particularly at craft, advance craft and technical levels,

2. Provide technical knowledge and vocational skills necessary for agriculture, commercial and economic development, and

3. Give training and impart the necessary skills to individual for self-reliance economically. (FRN, 2013)

Therefore, TVET in Nigeria means that is a type of training which aim to specific person or group of persons in order to build up their manipulative and creative capability for the benefit of human race. The objective of TVET is therefore to solve problem of unemployment so as to produce competent human resources for social and economic development (Jane, Raymond, and Patrick, 2017). According to Uzoagulu (1999), TVET demand that: (i) identifying and recognizing the innate abilities of individuals; (ii) give individuals orientation in various practical skills and scientific facts; (iii) exposed individuals to interaction with their environment for positive; (iv) enable individuals to develop and harness their identified abilities; (v) individuals to attain perfection through practice and guided discoveries application and (vi) individuals be subjected to challenging tasks. TVET in a training school setting can be seen as intended educational programme of courses and experiences for students that begin with exploration of professional options, sustainable basic academic engagement, and life skills and facilitate achievement of high skills values, leadership and training for industrialize-defined career (Kukoyi, 2009). The author further emphasized that TVET prepares individuals for careers opportunities that are hinge on physical, moral and practical activities, traditionally non-academic and wholly related to a precise trade, occupation or profession. Kombe (2010) stated that, in contrast to general education, learning in TVET is centred on ‘applied’ as opposed to ‘academic’; practical as opposed to theory, and skill as opposed to knowledge. Frankly speaking, TVET curriculum implementation in Nigeria and any other part of the world demands huge capital that requires government and other non governmental bodies support.

Nigeria as one of the developing nations in Africa and the world at large is saddled with the fundamental issues of TVET curriculum implementation to it citizenry and this has become a serious cause of concern. It is universally acknowledged that no nation can develop above the level of quality of their manpower resources possesses. Consequently, in order to meet the manpower needs of the 21st century workplace, the work force has to possess the right skills, up-to-date knowledge, the right attitude and abilities to do the work in line with the demands of the occupation through curriculum implementation (Jane, Raymond, and Patrick, 2017). All these can be achieved through effective TVET curriculum implementation within the various institutions of technical education.
Audu (2014) explained that, in Nigeria the TVET institutions that were considered as the major professional and vocational institutions used developed TVET curriculum for implementation to its individual trainees. They trained and prepared learners towards self employment in different vocation. The TVET curriculum programmes in Nigeria includes; Craft Practice, Foundry Craft, Mechanical Engineering Fabrication and Welding, Motor Vehicle Mechanics, Auto Electric Works, Vehicle Body Building, Agricultural Mechanics, Instrument Mechanics, Electrical installations, Business Studies, Radio and Television, Refrigeration and Air Conditioner, Garment Making, Graphic Arts, Catering Craft Practice, Leather Trades, Textile Trades, Machine, Printing Craft, Wood Working, Furniture Craft, Carpentry and Joinery, Painting and Decorating, Block-laying, Bricklaying and Concreting, Plumbing and Pipe Fitting and Ceramics, (NBTE, 2004). Even though there are several efforts by the past and present government towards the implementation of these TVET curricular in an attempt to facilitate the achieve of the set up creditable objectives, there are still rising concerns amongst the stakeholders and industrialist that graduates from our TVET institutions in Nigeria lack adequate practical requisite background and appropriate job related skills for employment in industries. This may not be unconnected with the missing links in the implementation TVET curriculum, the TVET institutions for the implementation of TVET programmes has failed Nigerians over time to tackle the skill gaps which exist and also reduce the effectiveness of TVET graduates from the Nigerian educational institutions. Apparently, for TVET in Nigeria to achieve its objectives, it must be properly implemented by ensuring all that is require are adequately put in place.

**TECHNICAL VOCATIONAL EDUCATION AND TRAINING CURRICULUM**

Curriculum is the passageway to the growth of professional knowledge and skills which facilitate the flow from theory to practice (George, 2010). The major benefit of a technical vocational education curriculum are: (a) it focus only on students career training (b) it gives flexible programmes accessible from a multiple of sources and (c) provides training within many various areas that need technical skills rather than only academic experiences (Ellis, 2003). UNESCO (2009) defined curriculum as an sequences of organized learning experiences with the aim to generate definite, expected learning experience, and maintain that curriculum development are set of learning practices intended at introduces deliberate experiences in organize to achieve better outcomes from the learners.

It is considered an acceptable practice to design TVET curricula aiming at a more efficient output. For the trainee it is recommended a highly planned TVET curriculum for robust implementation to the learners. One of the major objectives of any TVET curriculum is addressed to individuals or group of individuals for employment purpose and to further: (i) to develop the trainee enterprising ability and attitude (ii)
to bridge the gap between required professional knowledge and skills needed to function, and (iii) to link specific kinds of learning to new situations base on market demand. Though, before developing the final plan of technical vocational education curriculum it is very important to demand experts and policy makers view for their input and decision on the essential aspects of the curriculum which should be taken into consideration. To this, four fundamentals issue need to be considered: The first thing to be put into consideration is the purpose of this TVET curriculum to include the TVET curriculum should have plan in such a way that at the end of the training period the trainees should be able to (a) creative and think independently, (b) ability to achieve success in different areas of task, (c) analyze view of the world and have own communicate beliefs, (d) adapt different technology, (e) decides and make choices, (f) understanding and develop knowledge, (g) ability to work in partnership and in teams and, (h) ability to communicate within different settings in different ways. The second factor is subject matter is to be brought together which may consider any materials applicable to the precise area of specialization based on market demands. The third element is the learning experiences within educational units are to be provided which include the likelihood of transfer of learning from one certain problem to another course, from the first term in the school to another, between school units and workplace.

Hence, TVET curriculum is a skills acquisition experience and training which provides competence for career and employment opportunity. It was noted by Ogbonnaya (2009) that in many school setting, there would be gap between the intended curriculum and the learned curriculum and explained that effective curriculum implementation concerned with narrowing such gap as much as possible in order to achieve the expected outcomes.

TECHNICAL VOCATIONAL EDUCATION AND TRAINING CURRICULUM IMPLEMENTATION

Implementation as a concept is the fulfillment of a request or execution of a plan, requirement or policy. It is the modus operandi of expressing an idea from concept to reality. Patrick (2007) defined implementation as the real situation of execution or practice of a plan or any invention for achieving desire goals. As such, implementation is the action that must be considered by reasoning in order for event to actually take place. In educational programme curriculum implementation its involved identifying and assessing resources to be used by the trainer so that execution of plans could be effective. The technical vocational education curriculum will be properly implemented if the resource personnel have understanding of the role they will play during the programme implementation properly therefore they must be trained, supervised and adequately prepared to do the tasks assigned to them.

Implementation of TVET curriculum at the classroom level encompasses a lot of ideas and skills. The instructional activities must be properly plan for implementation to be
effective in order to achieve the desired results within a time frame for the implementation. The accomplishment or failure of any curriculum implementation depends on the level of preparedness which is the key. For instance, when the quality of the scheme is so superior, but lacking an efficient design for implementation failure is the answer. UNESCO (2011) explained that implementation effectiveness of technical vocational education in Nigeria focuses on different areas that must be clearly understood regarding the NBTE programme blue print. The areas to be taken into consideration for effective implementation includes a clear understanding of the demand of the trainee, desired end state and the intervention to be made in full. The worthiness of implementation has important result on outputs in addition to the extent toward which the implementers able to influence the educational experience.

Effective implementation of technical vocational education programme lies on the teacher and the government (Ebuoh, 2004). Implementation of technical vocational education requires continual monitoring of the progress through programme evaluation at predetermine interval of time. Monitoring the implementation is meaningless if it is not accompanied with adequate funding and provision of infrastructures for effectiveness. It involves helping the learners to acquire the appropriate skills, knowledge and experience to function well in the society. It should be noted that curriculum implementation cannot take place without the present of the trainee as major beneficiary (COL, 2000). Without the trainee as the central figure as the beneficiary the curriculum implementation cannot hold. Therefore, technical vocational education curriculum implementation takes place as the trainee goes through the intended experiences, skills, knowledge, ideas and attitudes that is aimed at enabling him to function effectively in society. Obanya (2004) explained that implementation of curriculum is the pursuit of the objectives of any given curriculum through day-to-day activities in school setting undertake by the teacher.

The curriculum implementation is the procedure of ensuring curriculum document into reality, implementing the planned curriculum in a way that the pre-determined objectives can be achieved requires availability of enough human and materials resources. This is to say that the actualization of execution of planned curriculum in the classroom through effective interactions of the teachers, learners, and other elements in the instructional system is vital. The truth curriculum implementation takes place in the classroom and it is being handled by the classroom teacher who is expected to be competent. The success or failure of any curriculum depends largely on what goes on in the classroom; the manner to which teaching and learning process is executed according to plans as spelt out in the curriculum lies on what will be outcome. Apparently, no matter how well the curriculum of any subject matter is planned, designed and documented, it’s connotation to these is incredibly imperative. Anene (2005) explained that the excellence merit of education in any scheme and at any level however is reliant on effective implementation of the curriculum. This is because many a time, the hindrances come up at the implementation level.
The availability of infrastructural facilities and competent teacher should always be reviewed at a predetermine time to ascertain how they influence the curriculum implementation in Nigeria technical vocational education. The significance of teacher in curriculum design, development and most prominently implementation cannot be over-emphasized. Even though teachers are expected to implement the curriculum they should be involved during policy formulation during review of curriculum to make it more robust. A main aspect that impede effective curriculum implementation is the problem of qualified teachers especially those with the pedagogical ability in area using ICT to teach technical subjects. At the moment, technical vocational education curriculum in Nigeria is designed for implementation without sufficient manpower to transform these documents into actualization. Hence, implementation of technical vocational education curriculum is not free from hitches (Ayonimike, 2014).

THE MISSING LINKS IN THE IMPLEMENTATION OF TVET CURRICULUM

The TVET curriculum implementation in institutions running technical education in Nigeria faces lots of problems. Kagara, Ibrahim, Nwankwo, and Usman (2018) noted that, it is very difficult TVET curriculum implementation to be successfully if the education system has limited funding capacities. Under funding raise a lot of implications ranging from poor wages to poor facilities for curriculum implementation thereby producing half bake graduates that could not be competent in the professional career studied. Egwu (2009), lamented that the major challenges of the TVET curriculum implementation is facing is too numerous to includes; limited and obsolete equipment and infrastructure, lack of standard workshop and libraries, decaying classroom blocks, poor support structure for students industrial experience programme, brain drain on human capital flight, increase number of cultism cases, cheating during the examination and academic and social vices, frequently academic calendar changes, lack of qualify staff across board, poor conditions of service for teachers, lack of fund and negligence in collaboration between TVET institutions and organized private sector.

Moreover, Udoka (2010) explained that the major missing link in the implementation of technical vocational education is funding. In same vein, Yusuf and Soyemi (2012), posited that lack of finance is one of the problems for the implementation of TVET curriculum to attain it expected result in Nigeria. Furthermore, Okoroafor (2010), also observed that; some of the problems of implementing TVET curriculum include; management of TVET institutions in Nigeria find it difficult to organize TVET lecturers to seminars, conferences, and short courses in order to update their teaching pedagogy for effective implementation of technical vocational education curriculum, technical vocational education teachers do not have the opportunity to carry out what they have learnt into practice due to poor infrastructure facilities, lack of sponsorship
to TVET lecturers to go and upgrade themselves and lack of prize for excellence performance. Furthermore, Nwogu and Nwanoruo (2011) also listed some of the challenges of TVET curriculum implementation to include; shortage of skilled manpower, lack of qualified TVET teachers and lack of fund to support TVET curriculum implementation.

Consequently, Odu (2011) stated the following challenges confronting the TVET curriculum implementation in Nigeria. These include: inadequate resources, scarcity of qualified TVET teachers, use of ethnicity in the appointment of TVET teachers. Odu (2011) also further stated that, Human Capital Development for the purpose of implementing TVET curriculum in the part of government pose some serious challenges to includes; insufficient funding, lack of workshop in technical vocational education institutions, insufficient instructional materials and others challenges as posited by Okebukola (2012), include; insufficient teachers, funding issues, insufficient teaching facilities, intimidating and harsh classroom, lack of qualitative preparation of lesson by TVET instructors, poor classroom environment, insufficient equipment as well as social vices.

CONCLUSION

It was concluded that the implementation of technical vocational education curriculum in Nigerian technical education institutions suffered with many impediments which are tantamount with some of the problems of education in Nigeria such as lack of professional teachers, poor provision of instructional materials, poor funding, and obsolete facilities for effective implementation. Therefore, it become very difficult to achieve the objectives of TVET due to implementation ineffectiveness within technical vocational education institutions in Nigerian, the government, nongovernmental organization, international organizational, and stakeholders should work assiduously to bridge these missing links in order to improve the implementation of TVET curriculum for poverty alleviation.

Reference:
Atchoerena, D. & Delluc, A. (2001) Revisiting technical and vocational education in sub - saharan Africa: an update on trends innovations and challenges. Paris: UNESCO Publication.
Audu, R. (2014). Conceptual model for technical and employability skills of mechanical engineering trades program in Nigeria. Unpublished Doctorial Dissertation. Universiti Teknologi Malaysia
Ayonimike, C. (2014). Challenges in implementing the TVET Curriculum in Technical Colleges in Southern Nigeria; Makerere Journal of Higher Education 6(1) 87-97.
Common Wealth of Learning (2000). Curriculum: Theory, Design and Assessment Retrieved 10th February, 2020 from http://www.google.com.ng
Ebuoh, C. F. (2004). New education system in Nigeria: Problems and prospects. Enugu: Sky Printing Press.
Egwu S (2009). Universities and the National Education Roadmap. A Key-note Address by the Honourable Minister of Education on the Occasion of the 24th Conference of the Association of Vice Chancellors of Nigerian Universities, at the University of Ilorin, on Tuesday 5th June.
Ellis, Tessika (2003) “What are the Advantages of a Vocational Curriculum?” Conjecture Corporation.

Federal Republic of Nigeria (2013). National Policy on Education, 5th edition. Abuja: NERDC Press

George S. M. (2010) The role of vocational education and training curricula in economic development. Procedia Social and Behavioral Sciences 2 3914–3920 www.sciencedirect.com Retrieved on 10/02/2020

Jane I. O, Raymond U, & Patrick S. O. U (2017). Bridging Skill Gap to Meet Technical, Vocational Education and Training School-Workplace Collaboration in the 21st Century. International Journal of Vocational Education and Training Research 3(1): 7-14

Kagara, A. B, Ibrahim, D, Nwanko, F. C, & Usman A. N (2017). Technical Vocational Education and Training Curriculum Implementation: A Solution to the National Dwindling Economy. In: A. I. Gambari; R. O. Okwori; I.Y. Umar; and C.S. Gana (Eds). Enhancing Science and Technology Education in a Dwindling Economy. 5th International Conference of School of Science and Technology Education, Federal University of Technology, Minna. 98-102.

Kukoyi, D. (2009). Design and implementation of public private partnerships in Education. Case study of Technical and Vocational Education.

Kombe, A. M. (2010). Technical Education and Vocational Training as a tool for sustainable development. Retrieved on 8th January, 2020 from www.unevoc.unesco.org/publications.

National Board for Technical Education (2004). National Technical Certificate and Advanced National Technical Certificate Programmes. Curriculum and Course Specifications. UNESCO – Nigeria Project

Nwogu P. O & Nweanomo C. C (2011). Vocational Technical Education and Training for Self-reliance: Towards National Development. Mediterranean Journal of Social Sciences 5(5): 55-59.

Obanya. P. (2004). Education for the knowledge economy, Ibadan: Mosuro publishers

Odu, K. O (2011). Human Capital Development in Science and Technology education: Challenges and New Responsibilities the Teacher. Contemporary Educational Technology 2(3): 238-249

Ogbonnaya, N. O. (2009). Social and political contexts of educational administration. Nsukka: Chuks Educational Publishers.

Okafoafor, C. (2010). Human capital development and vision 20:10. A perspective on tertiary education. SBMT Nekede Conference Journal. 1(2):71-73.

Patrich, V. (2007). Implementation. Retrieved from http://searchcrm.techtarget.com/definition/implementation http://en.wiktionary.org/wiki/implementation Retrieved on 29/02/2020

Udoka, S. I (2012). The Global Economic Crisis: A Challenges to Curriculum of Implementation in Technical and Vocational Education Technology in Nigeria.

Akerele, W.O. (2007). Management of Technical and Vocational Education in Nigeria: The Challenges of the Country. Journal of Research in Education and Society. 1(2 and 3): 117-124

Uzoagulu, A. E. (1999). Philosophy and technology and the technological development of Nigeria. Journal of studies in education (JSE), 6 (3), 19-30.

UNESCO (2011). Technical and vocational education and training. http://www.unesco.org/new/en/education/themes/education-building-bl.Retrievedon10/8/2015.

UNESCO (2009): The Worldwide Resource Pack for Capacity Building in Curriculum Development, An IBE Project.

Yusuf, M.A. and Soyemi, J. (2012). Achieving sustainable economic development in Nigeria through technical and vocational education and training: the missing link. International Journal of Academic Research in Business and Social Sciences. 2(2), 71-77.