Critical Issues that Impedes the Quality of Learning Outcomes in Technical Vocational Education and Training (TVET) in Nigeria
by
Idjawe, E. Emmanuel
Department of Metalwork Technology
Federal College of Education (Technical), Asaba
Correspondence: Idjaweson19@yahoo.com

Abstract
This paper is focused on critical issues that impede on the quality of learning outcomes in Technical Vocational Education and Training (TVET) in Nigeria. Specifically, the paper explains the benefit derived from quality education, defined the meaning and importance of technical and vocational education and explains how technical and vocational education is linked to human capital theory that a nation needs to raise adequate workforce through education. The paper further explains the levels where technical and vocational education career can be offered in Nigeria institutions, the meaning of learning outcomes and how lack of quality learning outcomes has been a clog to the wheel of technical and vocational education in Nigeria. However some critical issues that impede the quality of learning outcome in technical and vocational education were highlighted, such issues include; in-adequate funding of technical and vocational education, in-adequate instructional facilities and in-effective utilization, Effective management of instructional facilities and leadership problems in technical and vocational education. A conclusion was drawn and some suggestions were made in order to attain quality learning outcome in technical and vocational education. The suggestions includes; The government should ensure that adequate fund is made available for technical and vocational education in Nigeria, adequate Instructional facilities should be made available in all occupational areas of technical and vocational education as this will ensure the quality of skills and competencies among others.

Keywords: Learning-outcomes, Funding, Instructional Facilities, Technical Vocational Education and Training (TVET).

Introduction
Education is among the human capital index that provides the panacea for development in all spheres of human endeavor and it has been recognized as a basic human right. For this reason, world leaders have always converged in significance conferences as part of sustainable development for human beings. Some of these conferences include World Education Forum (WEF) of 2015 that took place in the Republic of Korea that posited that education is central to sustainable development and constitute a pathway to a life of dignity to all. While the United Nations General Assembly in 2015 in a bid to transform the world for better living by year 2030, set seventeen goals agenda tagged “Sustainable Development Goals (SDGs). In its goal number four, the forum posited that it ensure inclusive education and equitable, quality education and the promotion of lifelong opportunities for all. In all these forums, quality education has always been emphasized. Quality education enables people to develop all of their attributes and skills to achieve their potentials as human beings.

According to the United Nations Socio Cultural Organization (UNESCO) (2000), goal six of Education For All (EFA), emphasized on all aspect of quality education that ensure excellence of all, so that recognized and measurable learning outcomes are achieved. Therefore the government should ensure that quality education service should be made available to all as it enlightens, empowers and enables citizens to make maximum contributions to socio-economic development of nations. According to Maikasuwa as in Idjawe (2014), since the return to democratic rule in 1999, the educational sector is yet to receive tremendous improvement in terms of quality
education. It is expected that with the dawn of democratic rule in Nigeria, the educational sector would have received improved delivery of quality education as a sign of dividends of democracy.

However in order to lift up the economic life of nations and the individuals, quality Technical Vocational Education and Training (TVET), is paramount. TVET is an arm of the educational industry that is known to have propelled the economy of nations and lift its recipient out of poverty. According to UNESCO (2015), TVET is used as a comprehensive term of referring to those aspects of the educational process involving in addition to general education the study of technologies and related sciences, the acquisition of practical skills, attitude, understanding and knowledge relating to occupations in various sectors of economic and social life. It is a type of education that comprises of training and skills development relating to a wide range of occupational areas such as technical trades, agriculture, business studies among others, that entails production and services to provide the individual with employable skills, raise the economy of nations and the provision of adequate workforce for a nation.

Based on this, Tilky (2013) linked TVET to human capital theory that was propounded by Adam Smith in the 18th century and popularized by Garry Baker. This theory posited that the aggregate stock of competencies, knowledge, social and personal attribute embodied in the ability to create intrinsic and measurable economic value of a nation depend on education. In the same vein, Imahe (2018), asserted that well educated people make an economy more productive, hence human capital is now regarded as the primary determinant of a country standard of living, because it engender how well a country succeeds in developing and utilizing the skills and knowledge of its citizens. Consequently, the main argument of this theory is that investing into human capital development such as TVET raises the necessary skills and competencies that nations needs for economic growth and development. This theory has informed government of nations, educational policy makers, and education managers on how education should be founded, organized and managed. According to Ji-Hyun Heajing (2012), human capital theory has proved its positive impact on TVET in the Asian countries of South Korea, Singapore, Hong-Kong and Taiwan since they invested much on TVET. This Akinseinde (2011),corroborated by asserting that the four countries which are often referred to as the “Asian Tigers” have a highly educated and skilled workforce and have specialized in areas where they had a comparative advantage, hence the economic success of these countries should be of interest to developing economies like Nigeria.

However, in Nigeria, TVET skills can be acquired through formal and non-formal education system. According to Idjawe and Iteku (2018), the term TVET is interchangeably used and sometimes incorrectly used to refer to pre-vocational as TVET. For the purpose of clarity, TVET include technical education and they are skill-based programme designed for sub-professional level of education. This Aikhionbare (2016) posited that TVET can be acquired through formal and informal methods of training with focus on the acquisition of skills. While technical education involves the academic and vocational training through formal methods of training that involves the application of the laws of science and technology. In this context, Uwameiye (2010) posited that technical education is synonymous with polytechnic education and other similar institutions; they are also known as TVET institutions. With these broad concepts, TVET refers to a range of learning experience which is relevant to world of work that entails manipulative, cognitive and attitudinal skills.

On the other hand, learning outcome in TVET is what a student knows, understand and be able to do, on the completion of a learning process. It is defined in terms of knowledge, skills and competencies (Uwameiye, 2018). Lack of quality learning outcome has been a clog in the wheel of TVET development in Nigeria and there are some factors responsible for this. Unfortunately, there are abundant evidence that TVET as it is offered in Nigeria institutions has failed in the task of equipping
the recipients with the needed skills and competencies. This Okoye and Arimonu (2016) posited that it is quite unfortunate and surprising to know that most technical education department in some Nigeria universities do not have workshops and depend on engineering workshop and lecturers to teach technical education concepts in this 21st century. Therefore majority of students graduated from TVET institutions are neither with the relevant skill required of them. This further revealed the misconception about TVET in Nigeria. However, TVET as it is currently practiced in Nigeria is far being accepted, because it is not responding to the need of the society, a lot still need to be done to make TVET an instrument of national development and a means of improving the life of its recipient. According to Gbenda (2013), low educational standard is a big problem in Nigeria and perhaps the most formidable threat facing Nigeria today. Undue emphasis has been placed on paper qualification therefore students barely graduates from TVET institutions without the acquisition of the relevant skills, knowledge and competencies required of them. They pass through the school without the school passing through them because of the misconception attached to education. People think TVET is synonymous with the acquisition of certificates at the expense of knowledge, skills and competencies and this has generated a lot of social problems in Nigeria.

To this end, this paper will address among others; Funding of TVET institutions in Nigeria, Provision of instructional facilities and utilization in TVET institutions, Effective management of instructional facilities in TVET institutions and leadership problems in TVET institutions as factors that have impeded the quality of learning outcome in TVET institutions in Nigeria.

### Funding of Technical and Vocational Education and Training (TVET) in Nigeria

The government is one of the major sponsors of education in most countries of the world including Nigeria. This they do as a means of fulfilling its social responsibility to its citizens, hence various levels of government, such as local, states and federal governments are responsible for the funding of the education sector through annual budgetary allocation (Nwafor, Uchendu and Akani, 2015). The issue of funding of education in Nigeria has generated a lot of controversies over the years, according to Emunemu (2017), underfunding has almost truncated the educational sector as it poses a great threat and danger to the quality of graduates that are produced for the nation. In fact poor funding has been identified as the major reason for the rot and challenges in the educational sector. Based upon this, Okobiah (2017) asserted that UNESCO has consistently recommended that developing nations like Nigeria with low domestic income should allocate at least 26% of their annual budget to the education sector. This has never been the case of the Federal Government of Nigeria as available data shows a low level of budgetary percentage in allocation to the education sector in relation to the UNECSO benchmark.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Budgetary allocation to Education</th>
<th>(%) Percentage of Allocation</th>
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</thead>
<tbody>
<tr>
<td>2014</td>
<td>N 493 billion</td>
<td>9.94 %</td>
</tr>
<tr>
<td>2015</td>
<td>N 392.2 billion</td>
<td>7.74 %</td>
</tr>
<tr>
<td>2016</td>
<td>N 369.6 billion</td>
<td>6.10 %</td>
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<tr>
<td>2017</td>
<td>N 550 billion</td>
<td>7.34 %</td>
</tr>
<tr>
<td>2018</td>
<td>N 605.8 billion</td>
<td>7.03 %</td>
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**Source: Vanguard online (April 8th, 2018)**

However, if poor funding has been a problem to the general education sector, then TVET which is more expensive in nature would be considered mostly affected, because in TVET the requirements include workshops, laboratories and other facilities for proper implementation. Based on this, Wale (2016), asserted that the minister of education has charged well meaning Nigerians and corporate organizations to help in the funding of TVET so as to the challenges of underfunding as funds provided by Tertiary Education Trustfund
(Tetfund) is not enough to place the country’s TVET on a solid and reliable platform to meet the objectives of TVET as outlined in the National Policy on Education (NPE). The emphasis on the provision of adequate fund on TVET is important, hence Okoli, Wejinjia, Agam and Asufi (2016) posited that it is not surprising that new industrial nations of the world such as the (Asian Tigers) have made giant strides in technology because of better financial resources devoted to education and TVET in particular. Proper funding of TVET need not be over emphasized if quality learning outcome is expected in TVE training. In this regard, Okoli et al further posited that UNESCO 2012 third international convention in Shanghai noted that if TVE is to reach its full potential of transforming the lives of the individuals, providing solution to youth unemployment and the promotion of the economy of nations, then TVET must be fully and adequately funded in all ramifications. Finally, Okobiah (2017) further asserted that it is accepted worldwide that human capital development is the basis for broad and sustainable development of any nation; therefore the quality of the economy of any nation depends on the development of its human resources. This means that such a nation need to spend much money on education and training of manpower, hence Okobiah further asserted that if you find any nation economy that is not doing well, find out what is spent on education.

**Provision of Instructional Facilities and Utilization in Technical Vocational Education and Training (TVET) Institutions**

The primary purpose of TVET is for the acquisition of practical skills that could bring about a significant change in behavior through critical thinking and manipulative skills of learners. Consequently this can not be achieved with the provision of inadequate instructional facilities and ineffective utilization. Facilities are infrastructures and physical assets owned by an institution and utilized by staff and students for teaching and learning purposes in order to attain set objectives. However in TVET institutions, the uses of instructional facilities are crucial to the attainment of set goals and objectives on the national policy on education, hence Ezeji (2004) asserted that the nature of TVET training requires a unique learning situation that requires instructional facilities to test, construct, experiment, disassemble, repair, design, create and study. Furthermore, the National Commission for Colleges of Education (NCCE) (2012) minimum standard for technical education requires that TVET programmes should provide unit workshop in each areas of occupation and equip them in accordance with required list of equipment. These facilities may include tools, machines, classrooms, laboratories, and workshops, among others that can stimulate work environment in an educational setting.

Based on this, Afework and Asfaw (2014), asserted that the provision of adequate facilities is the basic ingredients for quality TVET training that enable the achievement of intended goals, as the use of instructional facilities enhances students learning by allowing them to be involved in demonstration and practical’s which will help to continue to build their skills. They further posited that learning is a complex activity that requires students and teacher’s motivation, therefore adequate facilities is a prerequisite to the attainment of quality learning outcome. On the other hand, utilization of instructional facilities is the process of using procured facilities to make teaching and learning process easier, interesting and rewarding. To this end, Eze (2015) asserted that effective utilization of appropriate instructional facilities for TVET training enhances the effectiveness of the teacher in skill delivery as they form the means of information carriers that promote effective teaching and learning activities, hence effective use of these facilities required experienced skilled personnel that can impact skills unto students. However, inadequate provision and utilization of instructional facilities in TVET institutions affect the quality of TVET training, student’s performance and subsequently the graduation of “half-baked” graduates into the labour market. This Changilewa and Jumba (2017) asserted that inadequate instructional facilities and utilization in TVET institutions lead to teaching of theoretical concept that make students lack the requisite skills and competencies required of them in occupational areas and this further affect curriculum implementation in TVET institutions.

However a corollary effect of inadequacy of instructional facilities and
ineffective utilization is low or ineffective instructional delivery that leads to low acquisition of practical skills and this further kills the enthusiasm in both students and teachers. According to Akhihiero (2017), no matter how energetic, enthusiastic and committed a teacher might be his or her effort, level of performance in the teaching environment will be dampened as a result of inadequacy of instructional facilities and utilization. Finally, the provision of adequate instructional facilities and utilization is a prerequisite to effective implementation of TVET curriculum in Nigeria.

Effective Management of Instructional Facilities

Instructional facilities are the materials which teachers and students used in teaching and learning situation to help learners achieve the desired learning objectives. There are important in teaching and learning process because they help to concretize ideas and make learning interesting, hence the justification for their effective management is important. In TVET institutions, instructional facilities serve as pillars of support for effective teaching and learning thereby making the process meaningful and purposeful. They constitute an indispensable factor in the teaching of skills to learners in TVET. Such facilities include space in workshops, machines, tools, consumables materials among others. However these facilities require effective management in order to enhance and ensure their functionality, comfort in usage, safety, precision in operation and freedom from theft. According to Umemetu and Obiweluozor (2015), the responsibility of managing instructional facilities rest on TVET managers that ensures that these facilities are working efficiently for utmost learning achievement.

However effective management of instructional facilities entails planning which is the first step of management process. Planning is the process of preparing a set of decision for actions in the future. A plan for instructional facilities management must be an integral part of the educational master plan that includes a long and short term plan that will consider the educational philosophy. According to Asiaba (2008), planning cannot be carried out without accurate information about the facilities, which should be collected through facility audit that entail a comprehensive inventory of such facility that provide baseline information about such component. Facility audit are important because it helps planners, TVET managers and support staff to know what is available, the condition of such facility, service history, and maintenance needs. Therefore the following information is necessary during auditing of facilities; brand name, model number, serial number, repair history, estimated remaining useful life etc. Secondly, another important factor in the management of instructional facilities is maintenance. Maintenance is an action taken to retain or restore an item to a state in which it can perform its intended function. This simply means that maintenance is an action taken to prevent equipment or a machine from failing or to keep it in a proper working condition (Idjawe, 2015).

Unfortunately most TVET institutions do not expend the necessary resource to maintain instructional facilities to keep them in proper working condition, they wait until such facility fail to perform it function before action is taken. However, every facilities has its life expectancy, the design life span of most facilities requires periodic or routine maintenance.

To this end, Toby as in Idjawe (2015), asserted that the goal of periodic maintenance is to prolong facilities life span, prevent breakdown and keep facilities in top working condition. Such activities may include regular inspection, lubrication, general cleaning, minor adjustment, replacement of disposables such as filter; other types of periodic maintenance may also include sharpening of cutting tools etc. Secondly, another maintenance strategy that can be adopted for instructional facilities is the predictive maintenance. This entails the acquisition of software to monitor the health of equipment or machine. With this the true status of such facility will be made known and adequate plan is put in place to carry out maintenance at a convenient time, instead of such equipment failing thereby putting pressure on management to effect repairs. Such crisis maintenance is usually expensive in nature. However, manufacturers of facilities always map out maintenance schedule that provide a guide that entails detail instruction in an operational manual, such manual is an
important document in a department or maintenance office and it should be a point of reference when such a facility has a problem. However, keeping facilities in proper working condition is essential. Today most maintenance in TVET institutions is still done according to the ancient way of maintenance, which is “If it breaks, fix it”. This pattern of maintenance is not necessary for TVET institutions of the 21st century, as it will disrupt training activities thereby having adverse effect on learning outcome.

Finally, instructional facilities management requires expert of different skills and this demands that TVET managers should have the necessary human relation to assemble the relevant workforce within and outside the school environment for effective facilities management to enhance the quality of learning outcome of TVET students.

Leadership Problem in TVET Institutions

Leadership is a skill which entails the ability of an individual to lead others in an organization. The word leadership brings to mind a variety of impression such as an explorer cutting a path for others to follow in the forest or a political leader pursuing a course for other to follow. According to Omoregie (2018), leadership refers to the ability of an individual to influence the actions of others towards the achievement of goals. Leadership is one of the most important variables that contribute to the success of an organization, hence anyone whose orders is carried out is refer to as a leader. However, there are certain behavior expected of a leader, otherwise there will be problem.

In education, a leader is expected to supply initiative and direction to the school community in order to further the educational objective of the school. Therefore he is expected to have good leadership qualities that contain innovative ideals for effective implementation of educational process. However, in TVET in Nigeria, good leadership should have strong belief in the importance and relevance of TVET and can as well communicate such belief to the higher echelon of authority. However, the implementation of TVET in the National Policy on Education (NPE) requires knowledgeable and dedicated leaders who understand thoroughly the philosophy behind the policy and are capable and willing to give direction in order to ensure that the aims of the policy are realized. It should be realized that the leaders are the direct link between the implementers and the makers of the policy. Consequently, if a problem is encountered in the implementation of the policy and if not clearly identified and communicated to the government, the expected benefit of the policy may not be achieve. However, according to Okoli, Amuda-Kannike, Asuru and Fesina (2016), leadership appointment in TVET institutions have been politicized instead of such appointment to be done on merit. Based on the appointment done politically, square pegs are now placed in round holes in order to satisfy political interest. This Maikasuwa (2013), asserted that, there have been problems in leadership in some TVE institutions as a result of politicization of the process of appointment as leaders or head of TVET institutions by the appropriate educational agencies or state Technical and Vocational Education Board (TVEB). For instance, appointment of a non TVET personnel as a leader or head of a TVET institution, such a leader may have no idea of what TVET entails. This Maikasuwa further frown at, as he asserted that this has led to mediocrity of the programme output, corruption and mismanagement of available scarce resources in TVET institutions. This development has led to policy inconsistencies and the attendant problem of the quality of learning outcome in TVET in Nigeria.

Conclusion

This paper has clarified issues that can make Technical Vocational Education and Training (TVET) in Nigeria to be on a strong foundation in the 21st century. The challenges confronting TVET in Nigeria include among others; inadequate provision of fund for the management of TVET institutions, provision of and effective utilization of instructional facilities, in-effective management of instructional facilities and politicization of the appointment of leadership in TVET institutions. These challenges should be vigorously pursued and fought to a standstill as the greatness of this nation depends on how TVET workforces are prepared for the labour market. TVET can hardly attain quality learning outcome where
there are weak approach towards its preparation with the presence of these challenges.

**Recommendations**

In the light of the above, the following recommendations were made to enable Technical Vocational Education and Training (TVET) students to attain quality learning outcome in Nigeria.

1. The government should ensure that adequate fund is made available for Technical and Vocational Education in Nigeria.
2. Instructional facilities should be made available in all occupational areas of Technical and Vocational Education as this will ensure quality of skills and competencies.
3. Experienced skilled personnel should be employed in all occupational areas of technical and vocational education to ensure effective utilization of instructional materials to impact skills unto students.
4. The government should ensure that instructional facilities provided to institutions are given adequate and effective maintenances as to ensure their consistency and durability.
5. Educational agencies and state Technical and Vocational Education Board (TVEB) should ensure that those appointed to the position of leadership in TVET institutions are TVET personnel that are familiar with the problems, goals and objectives of TVET programme.
6. The federal government should separate the unit of Technical and Vocational Education in the federal ministry of education and make it a full fledge ministry, and it should be known as “Federal ministry of Technical and Vocational Education”. This will attract more attention to TVET and make it more meaningful and functional in Nigeria

**References**


industrial arts facilities (1st ed). Enugu: Cheston agency limited.


Tilky, L. (2013). Reconceptualizing TVET and development: A human capability and


