

1 The Role of Technical and Vocational Education in National 2 Development

3 Melaiye, O. Rufus¹, Amuchie Austine A.² and Glory Joseph K.³

4 ¹ Taraba State University

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7 **Abstract**

8 Education, especially technical and vocational education is central to national development of
9 fast developing countries such as the ?Asian Tigers ?. In Africa and Nigeria in particular, the
10 adoption of technical and vocational education has not been given environmental recognition.
11 This paper argues that the acquisition of technical and vocational skills education system
12 propelling self reliant development. This paper seeks to understand the role of technical and
13 vocational educations have in national development. The paper examines the problems of
14 technical and vocational education in Nigeria.

15

16 **Index terms**— education, development, skills, technical, vocational.

17 **1 Introduction**

18 Generally, education has become the basis for economic growth, political stability and social harmony. Shehu
19 (1997) opined that the level of development of any society depends on its intellectual, scientific and technological
20 achievements. He further stressed that technology has become a critical factor of economic growth and social
21 development as it is through their application that the natural resources of the country could be transformed
22 into goods and services for better quality of life of the majority of the country's citizens.

23 In his contribution Akerejola (2001) asserted that the country's economic future depends to a large extent on
24 its ability to adopt training strategies that will ensure the creation of adequate technically skilled development.
25 However, technical and vocational education is a sure way to the desired development. Technical and vocational
26 education empowers individuals by equipping them with skills and knowledge which would enable them to fit
27 into the labour market and earn a successful living.

28 This type of education would help their products to use the knowledge and skill acquired to transform the
29 nations environment politically, socially, technologically, and economically. Despite the contribution made by this
30 type of education in National Development, a lot of problems are hindering the production of low level manpower
31 in technical colleges and other similar institutions. Ama ??2000) observed that technical and vocational education
32 in Nigeria is fraught with problems which militate against its ability to produce adequate qualified skilled and
33 technical manpower required to lift the nation from abyss of technological irrelevance, and economic depression.
34 For a proper understanding of this paper, two outstanding concepts that are rather significant to the title of this
35 paper need to be clarified. The concepts are technical and vocational education and national development.

36 **2 II. Concept of Technical & Vocational Education**

37 Technical and vocational education is a multifaceted, multidisciplinary and pragmatic field of study, whose aim
38 is to equipped individual with requisite technical and vocational education literary skills which will enhance their
39 relevance and functionality in the society. As a result, it plays a vital and indispensable role in the development
40 of society. Unatu (2008) asserted that technical and vocational education is the acquisition of skill and techniques
41 in chosen occupation or profession to enable an individual earn a living. The federal government of Nigeria (FGN,
42 2004) viewed technical educational and vocation education as the aspect of the educational process involving in

3 III. THE CONCEPT OF NATIONAL DEVELOPMENT

43 addition to general education the study of technologies and related science and the acquisition of practical skills,
44 attitude, understanding and knowledge relating to occupations in various sectors of economy and social life.
45 Osuala (2004) stated that technical and vocational education in a training intended to prepare a student to earn
46 a living in an occupation in which success in dependent largely on technical information and an understanding
47 of the laws of science and technology as applied to modern design, production, distribution and services, it is
48 conducted as a part of a programme designed to prepare individual gainful employment as a semi-skilled workers,
49 technician or sub-professions in recognized occupations as well as new emerging occupation. Joshua (2002) viewed
50 technical and vocational education as a type of education made up of theoretical and practical introduction given
51 to those wishing to be employed in commerce and industry or any type of enterprise that requires the use of tools
52 and machinery for the operation, production, preservation and distribution of goods and services.

53 Ocufirwa (2008) stated that technical and vocational education is result oriented. It brings about technological
54 advancement and aimed at fitting new manpower for employment and providing continuous training for those
55 already qualified so that they can keep up with modern working methods. As a matter of fact, technical and
56 vocational education is aimed at developing not only practical skills but also developing a creative innovator and
57 resourceful person.

58 The development of economy for self reliance and self-sustainability is the main driving force for acquisition
59 of this type of programme. Several attempts have been made to define Technical and vocational Education.
60 National Policy on Education, Federal Republic of Nigeria (2004) defined it as compressive term referring to
61 the educational process involving the study of technologies and the related sciences, and acquisition of practical
62 attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.

63 Similarly, Okonkwo (2008) defined it as that aspect of education and training that bothers on the acquisition
64 of practical skills as well as basic scientific knowledge which are vital to the Improvement of man's material well
65 being. In the same view Sallah (2008) stated that Technical and Vocational Education is an educational aspect
66 that prepares individuals for saleable skills arid takes one fit into the society to make effective contributions for
67 its development. This implies -that practical skills acquisition in various areas or vocation leads to economic
68 stimulation in a dynamic society where individuals who are vocationally knowledgeable embark on production
69 saleable items

70 The National Policy on Education of the Federal Republic of Nigeria (2004) postulated the goals of technical
71 and vocational education as to:

72 ? Provide trained man power in applied science, technology and business, particularly at craft advance craft and
73 technician levels ? Provide the technical knowledge and vocational skills necessary for Agricultural commercial
74 and economic development; and ? Give training and impart the necessary skills to individuals, who would be
75 self-reliance economically.

76 To accomplish these goal at science and technical college level, programs of activities have been grouped
77 in the policy document ??FRN, 2004). The groups for each programme comprise general education theory
78 and related courses, workshop practice and industrial training/production work. It is thus, expected that
79 graduates from technical and vocational institutions will be equipped with practical manipulative skill/service
80 competencies, basic scientific knowledge and proper work habit/attitudes. The programme of study at technical
81 and vocational institutions have been clustered into Agricultural, Building craft, Electrical engineering trade,
82 Mechanical engineering trades, wood trades, business trades, computer trades, textile trades, hospitality.

83 The products of technical and vocational education, after they have, passed through assessment criteria
84 (examination) are certified as having acquired the skills set out by the curriculum. Certificates are awarded
85 to them as National technical Craft (NTC) and Advanced National Technical Craft (ANTC).

86 The form of training received by the graduates of this form of education involves lectures and tutorials (for
87 acquisition of factual knowledge) the theoretical knowledge will help them have a firm understanding of their
88 subject area for problem-solving in a work related environment. The practical knowledge helps them learn
89 the skills of hand and leg to do the productive work necessary for the welfare of the nation. The graduates
90 also acquired knowledge industrial based training where real life technical environment and procedures are
91 encountered. The candidates also acquire general knowledge to do the work of the socialization of individuals in
92 the social environment. The professional preparation enables them to know the ethics of their profession. The
93 main focus is to make the trainee fully equipped to meet the varied challenges in his chosen profession after the
94 course of study.

95 3 III. The Concept of National Development

96 Development in the context of this discussion means many things to many people but since our theme is related
97 to National development normally means faster and greater economic growth leading to the enhancement of
98 the wealth of the nation, higher level of Medicare and faster and greater improvement in the quality of living
99 environment of the people (Ejike, 1998) All these processes lead to enhancement of National image, stability
100 and power for the government and nation at home and abroad. Power mentioned here is the ability to influence
101 events in other parts of the globe and to be taken seriously by friends and foes alike. Development could also
102 mean enhanced performance scope in various fields of human Endeavour derived from superstitions culture. It
103 involves empowerment of individuals to earn a successful living, and contribute to the economy. It also involves

104 transformation of our environment. The transformation could be social, physical, political, and economical,
105 change of value system, among others.

106 It is the belief of the average Nigerian that technological knowledge acquired from Technical and Vocational
107 education could be used to solve the The Role of Technical and Vocational Education has a significant role to
108 play in shaping the socio economic future of Nigeria. Enebe (2002) highlighted the roles Technical and Vocational
109 Education can play in curbing unemployment and in providing the needed skilled labour for industries. These
110 individuals help to transform our environment. The transformation can be social, physical, economical or political.
111 That is to say that this type of education equips individuals with vocational skills which would enable them to
112 be gainfully employed with the empowerment so that they can earn a successful living. Later they would use the
113 skills acquired to contribute to technological and economic development.

114 Nature has given every nation natural resources but the extent to which each nations utilizes these gifts
115 depends upon the level of that country's technological advancement. It is through the application of vocational
116 skills and knowledge that natural resources could be transformed into goods and services. In education, progress
117 is made through science which is the foundation of technological development. Technology generates skills for
118 production.

119 Material production itself consists of the action of men taken upon nature in their efforts to humanize it.
120 For instance Agricultural skills obtain through Technical and Vocational Education could be used to produce
121 more yields. Increased productivity therefore, enhances better standard of living which is the desire of many
122 individuals. If the products of this vocational education (e.g. Agricultural Science) could venture into farming
123 or take farming as their life career and apply the scientific knowledge acquired during their training, they can
124 produce: enough food to feed her teeming population and local industries. The excess could be exported to
125 others countries.

126 A developed Nigeria according to Esen (2000) is a Nigeria that produces what it consumes with substantial
127 left over to sell to other nations. For Nigeria to belong to the club of developed nations she must change from
128 consumer to producer nation. This means that the country should be able to process her raw materials such as
129 hides and skin cotton, cocoa, palm oil, Palm kernel oil, crude oil and pulp into finished product she should be
130 able to manufacture the cars the citizen use as well as fabricate the spare parts instead of importing them from
131 the western world. Nigeria should be able to use her engineers, technologists arid technician in building houses,
132 roads, railways, ships, drill crude oil rather than using foreigners. The much echoed local content i.e. involving
133 Nigerians in the manufacture of goods can only be achieved when more craftsmen and technicians are trained
134 in Technical Colleges. It is only the relevant technological skills that are derived from technical and vocational
135 education that will change raw materials into finish products.

136 Products of technical and vocational programmes become wage earners and self employed in some instance thus
137 assets to the society rather than dependants on society. Preparation for useful employment contributes indirectly
138 to many social benefits. Trained workers contribute to the general upliftment of the masses standard of living as
139 well as theirs. There should be many and varied job training programmes by government and industries in the
140 hope of improving the lot of the deprived and the disadvantaged members of the society (and therefore concluded
141 that vocational education is the answer to many of them).

142 Aina ??2000) asserted that technical and vocational skills empowers young people and adults to play active
143 roles in a development paradigm that seeks to narrow economic and gender disparities while preserving the
144 integrity of the environment. He further said that in future, the backbone of robust social and economic
145 development in a nation will be the technical professionals.

146 Suleiman (2002) viewed technical and vocational education as the salvation for the unemployed, juvenile
147 designates, criminals, unstable, and unsatisfactory home etc. sociologist perceived vocational education as the
148 salvation of civilization because they ascribe most social ills to vocational incompetence.

149 4 IV. Prospects of Technical Vocational Education in Nigeria

150 The prospects of improving the current state of Technical and Vocational Education may be found in the Federal
151 Government master plan 2000 2010 for Technical and Vocational Education.

152 According to Sani (2002) the Federal Government of Nigeria through the Federal Ministry of Education intends
153 to address some of the limitations and failures of the Technical and Vocational Education System. Sowade (2006)
154 21st century. For a country like Nigeria to fully benefit from technical and vocational education it must be given
155 the highest priority that is deserved. Our technical colleges must be restricted, revamped and fully developed to
156 provide the leadership required to grow.

157 On the side of the products of technical and vocational education a brighter future awaits them. They could
158 as well set up their own business and become self-employed and be able to employ others. Those of them that do
159 not want to work immediately after graduation could go for further studies in colleges of Education, Polytechnics
160 or Universities.

161 **5 V. Problems of Technical and Vocational Education in Nigeria**

162 Many educationists regard technical and vocational education as the basis of industrial and economic development,
163 and indeed as the pillars of prosperity. Yet, most of the problems hindering effective teaching and learning are
164 not solved.

165 Awotunde (1993) observed that most of the institutions that engage in vocational and technical colleges lack
166 enough facilities, some lack enough workshops and laboratories. Where workshops and laboratories are available,
167 they are ill equipped with tools and equipment because vocational and technical education is capital intensive.
168 Some institutions are not able to purchase appropriate tools, machines and other equipment for the training of
169 manpower. They make use of obsolete machines and equipment to train people.

170 Consumable items such as wood, iron and steel, plastics are often related to the background. Curriculum is
171 a major requirement for carrying training in Technical colleges and other institutions. This consists of the list
172 of courses and activities for the trainees and the general objectives of the courses. The nature of the curriculum
173 affects the product. In other words the quality of the products from technical colleges depends on the type of
174 curriculum of the institutions among others. The curriculum of the Technical and Vocational Education has not
175 been updated for long to march development in commerce, science and technology. This affects the quality and
176 relevance of the Technical and Vocational Education. Onwuchekwa (2001) stated that any worthwhile programme
177 is never static but dynamic and therefore, liable to constant changes in the aims of the nation.

178 Class sizes are abnormally large a situation that adversely affects teaching efficacy. The ideal classroom
179 should accommodate only about 20 students. This class size enhances and facilitates thorough supervision and
180 assessment of the extent of practice of skills. Also it gives room for the teacher to sufficiently access the students.

181 Unfortunately most classes in Technical colleges are large. Often 50 or more students are found in a class,
182 this affects the quality of learning. Another source of worry is that the industrial Training Programme was
183 designed to familiarize trainees with the world of work. ??laintan (1996) observed that this programme has
184 become a formality and no longer serves effectively the purpose for which it was set. For one reason or the other,
185 the responsibility for placement has been shifted to students. Students often scramble for places of industrial
186 training. Even some of them that secure places complain of redundancy. While some spent half of the time
187 allocated for the programme looking for places that would suit their selfish interests. Some are even rejected by
188 Government establishment and private sectors (industries).

189 A major problem facing technical institutions is the epileptic nature of power supply where it exists. According
190 to Tower (2001) no technical and vocational subject can be offered anywhere and at any level without regular
191 electricity supply. Some technical and vocational schools are located in rural areas that have no standby
192 generators. Okonkwo (2008) asserted that the human resources situation has not been favourable for technical
193 and vocational education. Some professional that would have made excellent teachers only had a brief stay in
194 schools and then leave for other sectors of the economy. According to Nwosu (2003) the comparatively poor
195 working conditions of teachers is gradually transforming the teaching profession as a stepping stone to other
196 highly esteemed and more attractive professions and other jobs. Teaching therefore has become a professions
197 for fresh graduates as well as unqualified graduates who are ever ready to quit their position as soon as they
198 find greener pasture elsewhere. In support of this statement, the Enugu State Government in 2009 recruited
199 all graduates who have no job into the teaching professions in order to fill vacancies created by those who left
200 their jobs. Those recruited include holders of NCE, First Degree and Masters Degree and those without teaching
201 qualification such as B. Sc., B. Tech., HND. These categories of teachers are likely to leave teaching prematurely
202 since they do not possess teaching qualifications and; they may decide to leave as soon as they secure more
203 lucrative jobs or business. So it is no longer the issue of production of teachers, rather, it is the problem of how
204 to retain the existing ones.

205 **6 VI.**

206 **7 Conclusion**

207 Technical and vocational education is education with a strong job orientations and which, a result is imbued with
208 such job-relevant practical content that its products emerge with marketable physical and mental skills. Despite
209 the present economic meltdown, technical and vocational education has the potential to develop our economy.
But the problems against the ¹

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Figure 2:

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Figure 3:

7 CONCLUSION

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- 210 [Osuala ()] , B C Osuala . 2004. Principal Method of Computer Education. Enugu: Cheston Agency Limited
211 [Tower ()] *An in-depth review and Assessment of the present state and technical and vocational education in*
212 *Nigeria Lagos*, P E O Tower . 2001. p. .
- 213 [Okonkwo ()] 'Assessment of Strategies for Retention of Technical Teachers Technical and Vocational Schools in
214 Bauchi and Gombe States'. M O Okonkwo . *Kusugu Journal* 13. Onwuchekwa, A.K. (ed.) 2008. 2001. (2)
215 p. 199. Federal University of Technology (Unpublished M. Tee Thesis) (Vocational Technical Education in
216 Nigeria. Problem and Prospects a Democratic society)
- 217 [Asuquo ()] E E Asuquo . *Fundamentals of vocational and technical education. KANO: Smiti Standard Nigeria*
218 *Ltd*, 2005.
- 219 [Coomba and Hallak ()] *Cost Analysis in Education: a Tool for Policy and Planning Baltimore*, F H Coomba ,
220 J Hallak . 1987. N.D John Hopkins University
- 221 [Ipaye ()] *Educational and Vocational Guidance: Concept and Approaches*, T Ipaye . 1986. Ibadan: Besekos
222 Press.
- 223 [Diraso ()] *Financing Vocational Education in Nigeria: A multidisciplinary Journal: YOLDE, Department of*
224 *management and general studies*, D K Diraso . 1998. Yola. Federal University of Technology
- 225 [Bobina ()] 'Functional Vocational Technical Education for Self Reliance in the Next Millennium'. T S Bobina .
226 *Ogunwale et al research publications unit*, (Kontagora) 2000.
- 227 [Unatu (2008)] 'Industrialism of the Nigerian Society through Creative Skills acquisitions in Technical and
228 Vocational Programme. A Paper presented at the Faculty of Education International Conference'. V O Unatu
229 . *Nsukka between 17th and 20th*, 2008. June. University of Nigeria
- 230 [National policy on Education ()] *National policy on Education*, (Lagos) 2004. NERC Press. Federal Republic of
231 Nigeria (4th Ed)
- 232 [Sowade (2006)] *Provost seeks Support for Technical Education*, L G Sowade . 2006. November 7. p. 17.
- 233 [Harmbrod ()] *Review and synthesis of research on the economics of Vocational and technical education*, J R
234 Harmbrod . 1968. Columbus: Ohio State.
- 235 [Nwosu ()] 'The Implementation of the Senior Secondary Chemistry curriculum: An analysis of some implemen-
236 tation'. E C Nwosu . *Constraints. Lagos, orbit Educational Journal* 2003. 1 (1) .
- 237 [Shehu (1930)] *The Importance of science and Technology in Nation Building on Nigerian Educational System*
238 *and National Development. A paper presented at National Conference held at the Federal College of Education*,
239 U I Shehu . 1997. Katsina 27-3 0, April, 1997.
- 240 [Sallah ()] *The need for Vocational and Appropriate Technology Education f Development in the socio-economic*
241 *growth*, G D Sallah . 2008. 5 p. 10.
- 242 [Olaitan ()] *Vocational and Technical Education in Nigeria (Issues and Analysis)* Onitsha. Noble graphic press
243 P, S O Olaitan . 1996. p. 51.
- 244 [Joshua ()] 'Vocational and Technical Education: the Need for Guidance and Counselling'. P Joshua . *National*
245 *Conference at FCE(T) Gombe from 13m to 15m November, 2002. (A Paper presented at the)*
- 246 [Abbas (ed.) ()] *Vocational Technical Education in Nigeria: The way forward. A Paper presented in seminar*
247 *organized by*, A G Abbas . F.C.E.(T (ed.) 2004. Gombe.