

Towards An Inventive Policy on Technical Education in Nigeria: Experience from Global Trend

J. Omang¹, John A. Undie², Ubom Bassey³

(1. Registry Unit, University of Calabar, Nigeria;

2. Educational Foundations, Abubakar Tafawa Balewa University, Bauchi, Nigeria

3. Science Education, University of Abuja, Nigeria)

Abstract: The study is a comparative focused on the provision and principles guiding technical and vocational education programmes across the globe. The 143 countries constitute the target population for the study. The stratified random sampling technique was used to select 10 countries (14.3 percent) cutting across each of the six continents. Three research questions were used for data collection. Data were collected through secondary sources. Data were analyzed ISCED indicators using simple percentages while data on policy issues were content analyzed. The findings among others; were that lower secondary two depicted the least enrolment in TVE programme with 9 countries (90 percent) not participating in enrolment, while only one country (10 percent) did. Upper secondary showed the highest involvement in TVE programme provision with 8 countries (80 percent) reporting enrolment. The policies adopted by selected countries were found to be relevant, current, knowledge-based social/economic competitiveness and technologically inclined. The recommendation among others; Nigeria should consider the provision of technology education starting from lower secondary school and upgrade the knowledge and skills of TVE managers and professional staff to meet the requirement of managing the new strategy.

Key words: inventive policy, technical education, vocational education and global trend

1. Background of the Study

Education is considered the **key** to effective development strategies, technical and vocational education and training (TVE) must be the **master key** that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all and help achieve sustainable development”.

After years of benign neglect, due to a complex set of reasons that included budgetary constraints and criticisms of the World Bank in the early 90s on its direction and focus, technical and vocational education and training (TVE) is back on the human resource development agenda of many African governments. The World Bank had cited at that time, high training costs, poor quality of training, the mismatch between training and labour market needs and the high rate of unemployment among TVE graduates as justification to recommend a policy shift away from school-based technical and vocational education and training. However, there is now a fresh awareness among policy makers in many African countries and the donor community of the critical role that TVE

Corresponding author: John A. Undie, Ph.D., Educational Foundations, Abubakar Tafawa Balewa University, Bauchi, Nigeria; research areas: educational management. E-mail: jaundie4u@yahoo.com.

can play in national development. The increasing importance that African governments now attach to TVE is reflected in the various Poverty Reduction Strategy Papers that governments have developed in collaboration with The World Bank. In its poverty reduction strategy document, Cameroon intends to develop vocational and professional training to facilitate integration into the labour market; Cote d'Ivoire talks about strengthening vocational training; countries that have prioritized TVE initiatives in their national development policy documents include Chad, Ethiopia, Guinea, Senegal, Sierra Leone, Uganda and Zambia, Japan, China, USA etc.

One of the most important features of TVE is its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. TVE delivery systems are therefore well placed to train the skilled and entrepreneurial workforce that Africa needs to create wealth and emerge out of poverty. Another important characteristic of TVE is that it can be delivered at different levels of sophistication. This means that TVE institutions can respond to the different training needs of learners from different socio-economic and academic backgrounds, and prepare them for gainful employment and sustainable livelihoods. The youth, the poor and the vulnerable of society can therefore benefit from TVE.

Poor people, especially women and children, suffer most from various forms of social and economic deprivation, including hunger and malnutrition, inadequate healthcare, limited access to education, and low self-esteem. Young unemployed people without any productive usage of their time are easily entrained into crime and violence. The risk is greatest with unemployed youth in conflict or post-conflict areas. Poverty is therefore a threat to national stability and good governance. All over the world, governments have embraced the United Nations Millennium Development Goals (MDGs) that aim to significantly reduce the number of people living below the poverty line, improve access to education, promote gender equality, improve maternal and child health, ensure environmental sustainability and promote global partnership between developed and developing countries. The first goal of the MDGs is the eradication of extreme poverty and hunger. The key to poverty alleviation is economic growth and the creation of employment for all. However, poor people without employable skills cannot benefit from the growth process. The challenge then is to raise the productive capacity of the poor, the youth and the vulnerable of society through the acquisition of job-specific competencies.

1.1 Problem of the Study

The situation in Nigeria today is such that many graduate are unemployed, the artisan lack skill in their respective crafts as such so many atrocities affecting the nation economic and social life are depicted everywhere. Hence the need to embark on this study is to find out the level of the provision of technical/vocational programmes and principles guiding the implementation.

1.2 Objective of the Study

Broadly the study aimed at Examining the level and nature of TVE programmes provided globally, and summarizing strategies and best practices in TVE programmes in African and international.

Specifically it examined at:

- (1) Establishing the number and percentage of countries that provided TVE by level and ISCED5B programmes.
- (2) Discussing the types of TVE programmes provided by countries across the global according to the number of index of diversification.
- (3) Ascertaining the innovations and best practices from global experiences.

1.3 Research Questions

- (1) What levels and types of TVE and 5B programmes do selected countries provided?

(2) What are the types of combined, (index of diversification) of TVE programmes did selected countries provide?

(3) What are the innovations and best practices of TVE programmes from global experiences?

2. Review of Related Literature

2.1 Concept of Technical Education

Technical and vocational education and training (TVE) refers to a range of learning experiences which are relevant to the world of work and which may occur in a variety of learning contexts including educational institutions and the workplace.

It includes learning designed to develop the skills for practicing particular occupations, as well as learning designed to prepare for entry or re-entry or to act as a foundation for entry into further education and training undertaken by young people prior to entering the labour market and continuing vocational training undertaken by adults whilst in work or during periods when they are economically inactive. In other words, it encompasses both initial skills development and various forms of “re-skilling” and “up-skilling”. Green, Hodgson, and Sakamoto (2000) considered training for the unemployed is a separate category and designated unemployed vocational training.

(B) 2.2 Current Status of TVE in Africa

TVE systems in Africa differ from country to country and are delivered at different levels in different types of institutions, including technical and vocational schools (both public and private), polytechnics, enterprises, and apprenticeship training centres. In West Africa in particular, traditional apprenticeship offers the largest opportunity for the acquisition of employable skills in the information sector. In Ghana, the informal sector accounts for more than 90 percent of all skills training in the country.

With a few exceptions, the socio-economic environment and the contextual framework in which TVE delivery systems currently operate on the continent is characterized, in general, by:

- (1) Weak national economies, high population growth, and a growing labour force;
- (2) Shrinking or stagnant wage employment opportunities especially in the industrial sector;
- (3) Huge numbers of poorly educated, unskilled and unemployed youth;
- (4) Uncoordinated, unregulated and fragmented delivery systems;
- (5) Low quality;
- (6) Geographical, gender and economic inequities;
- (7) Poor public perception;
- (8) Weak monitoring and evaluation mechanisms, and
- (9) Inadequate financing, poor management and ill-adapted organizational structures.

(10) TVE in Africa is delivered by both government and private providers, which include for-profit institutions and non-profit, NGO and Church-based institutions. In almost all countries, non-government provision of TVE is on the increase both in terms of number of institutions and student numbers. This trend is linked to the fact that private providers train for the informal sector (which is an expanding job market all over Africa) while public institutions train mostly for the more or less stagnant industrial sector. Private providers also target “soft” business and service sector skills like secretarial practice, cookery, and dressmaking that do not require huge capital outlays to deliver. A limited amount of in-company or enterprise-based training also takes place in some

countries; however, this type of training is often dedicated to the sharpening of specific skills of company employees.

2.3 International and African Best Practices and Strategies

The current status of TVE in Africa is not all about weaknesses. TVE systems in a growing number of countries are undergoing or have undergone promising reforms that are designed to build on the inherent strengths of the system. The major reforms concern the setting up of national training bodies, and the enactment of laws to strengthen national vocational training programmes. The need to link training to employment (either self or paid employment) is at the root of all the best practices and strategies observed world-wide.

National Training Authorities have been set up in many countries, including South Africa, Botswana, Namibia, Zambia, and Tanzania. Ghana has also recently passed an Act of Parliament that establishes a Council for Technical and Vocational Education and Training (COTVE) which will have overall responsibility for skills development in the country. In order to achieve greater coherence within the diverse TVE system, some countries have established National Qualifications Frameworks. The South African National Qualifications Framework provides a mechanism for awarding qualifications based on the achievement of specified learning outcomes prescribed by industry. The framework allows for accumulation of credits and recognition of prior learning, which promotes the culture of life-long learning. Employers also support vocational and technical training financially by paying a levy of 1% on enterprise payrolls. In Benin, a Bureau d'Appui aux Artisans (BAA) has instituted an innovative system of complementing the skills of traditional apprentices and master craftsmen. A similar support system for the Jua Kali informal sector in Kenya was rated highly successful.

From outside Africa, two training models stand out for mention: the centralized Singaporean model and the dual system practiced in Germany. In Singapore, a National Manpower Council ensures that training is relevant to the needs of the labour market. Training also includes the inculcation of shared cultural values rights and respect for the rule of law, and the level of participation of trainees in the democratic process.

2.4 The Challenge of Globalization

In Africa, globalization has created a tension between developing skills for poverty eradication and skills for global economic competitiveness. Although the primary objective of technical and vocational training in Africa is to help alleviate poverty through the acquisition of employable skills, a strategic approach to skills development on the continent cannot ignore the effects of globalization. In a globalizing world economy, the acquisition of "industrial" skills is also important. However, the sheer lack of skills of all sorts in Africa and the demands of poverty alleviation mean that African countries must pursue the development of skills at all levels of the spectrum (basic, secondary, tertiary levels), with each country emphasizing the skill levels that correspond best to their stage of economic development and the needs of the local labour market. ICT education at all levels is also important for survival in a globalizing labour market.

Another dimension of the implications of globalization for vocational training in Africa is the flooding of markets in Africa with all manners of cheap goods and technology products from foreign countries. The question arises as to how competitive locally produced goods will be against the cheaper imported versions? National policies should therefore take into account these and other globalization-induced factors in designing TVE programmes and courses.

In conclusion, this TVE strategy document provides a strategic framework for the development of national policies to address the challenges of technical and vocational training to support economic development and the creation of national wealth and contribute to poverty eradication. The document acknowledges that vocational

education and training alone does not provide jobs or eradicate poverty. Good government policies do both. The strategy therefore urges governments to create an economic environment that promotes the growth of enterprises and generally stimulates the economy. When businesses develop and expand, additional labour-market demands for technical and vocational training emerge, new job opportunities are created, more people get employed, and the incidence of poverty reduces. For this to happen on a sustainable basis, however, the TVE system must be labour-market relevant, equitable, efficient, and of high quality. This strategy document provides the framework for the design and implementation of such national TVE systems.

3. Methodology

The study is a comparative focused on the provision and principles guiding technical and vocational education programmes across the globe. The 143 countries constitutes the target population for the study. The stratified random sampling technique was used to select 10 countries (14.3 percent) cutting across each of the six continents. Secondary data from UNESCO institute for statistics 2005, OECD 2004. Handbook for Internationally Comparative Education Statistics, are reports of interview conducted by individuals and committees were used as the sources of data collection. The level of participation of country was measured with the International Standard for Educational Classification (ISCED) System which is widely used as set of international educational classification which is developed by UNESCO and designed to provide an integrated and consistent framework for the collection and reporting of internationally comparable education statistics. To achieve this comparability, it adopts a taxonomy essentially based on programmes of “organized” learning. Data collected through the UOE (UIS/OECD/Eurostat) surveys. The ISCED 97 categories programmes primarily by level, intended destination and programme orientation, the latter characterized as “general education” pre-vocational and vocational” education. Both pre-vocational and vocational learning fall within the definition of TVE adopted in this study. The second participation indicate percentages of technical/vocational enrolment or PTVE which involves country-level contextual variables namely Gross Domestic Product (GDP) per capital and Total Gross Enrolment Ratio of countries in TVE. The innovations/best practices in technical education by countries are analyzed through secondary data based largely on the books of various authors by Johnson and Admas (skills development in Africa and Europe.)

3.1 Presentation and Analysis of Data

Research Question 1: What levels and types of TVE and 5B programmes do selected countries provided?

Table 1 Distribution of Number and Percentage of Countries that Provided TVE by Level and ISCEDB5B Programmes

	No	%	Yes	%	Data not available	%	Total
Vocational enrolment at lower secondary (ISCED 2)	9	90	1	10	-	-	100
Vocational enrolment at upper secondary (ISCED 3)	2	20	8	80	-	-	100
Vocational enrolment at post- secondary non-tertiary (ISCED 4)	2	20	6	60	2	20	100
Enrolment at tertiary ISCED 5B	1	10	7	70	2	20	100

Source: UNESCO Institute for Statistics database, 2005.

Table 1 shown that 9 countries did not report enrolment in lower secondary (ISCED 2) TVE programme while only a country did. Upper secondary education (ISCED 3) on the other hand, was the highest TVE programme provided 8 countries (80%) reported enrolment in TVE programme while 2 (20%) countries did not however enrolment in TVE programme in post-secondary non-tertiary education (ISCED 4) was reported in 6

(60%) countries while 2 (20%) countries did not and 2 (20%) countries showed no record. Though ISCED does not apply the 'programmes are not formerly classified as vocational, despite being defined as "practically-oriented/occupationally-specific" 7 (70%) countries was reported enrolment.

Research Question 2: What are the types of combined, (index of diversification) of TVE programmes did selected countries provide?

Table 2 Distribution of Typology of TVE Provision, by Region (Number of Countries)

Index of diversification of vocational programmes	Countries										Total
	Ghana	Nig.	S/A	Ger	Fra	Ind.	Jap	China	US	Bra	
No programmes	1	3	0	0	0	0	2	1	1	2	10
ISCED 2	0	0	0	0	0	1	0	0	0	0	2
ISCED 3	1	0	1	1	1	1	1	1	1	0	8
ISCED 4	1	0	1	1	1	1	0	1	1	1	6
ISCED 2 + 3	0	0	2	1	1	1	1	1	1	1	9
ISCED 2 + 4	0	0	2	1	1	2	1	1	1	1	11
ISCED 3 + 4	1	0	1	2	1	2	1	2	2	1	12
ISCED 2 + 3 + 4	1	0	1	2	2	3	1	2	2	1	15
Total	5	0	8	8	7	12	5	8	8	5	64

Source: UNESCO Institute for Statistics database, 2005.

Table 2 showed that most common pattern of TVE programmes provided combined the three levels, lower secondary two (ISCED 2) with the two most-advanced levels: upper secondary (ISCED 3) and post-secondary non-tertiary (ISCED 4). The next frequent pattern of TVE programmes combined upper secondary and post-secondary non-tertiary followed by upper secondary which the least frequent enrolment. It is noticed that Nigeria has no enrolment pattern in TVE programmes has shown in Table 2 however India depicts the highest pattern with 12 patterns, South African, Germany, France and China shared the same 8 pattern while Ghana, Japan, U.S and Brazil share the least five pattern each.

Research Question 3: What are the innovations and best practices of TVE programmes from global experiences?

Table 3 The Innovations and Best Practices of TVE Programmes from Global Experiences?

Country	Innovation	Impact	Lessons
South Africa	National Qualifications Framework (NQF) established to provide mechanism for awarding qualifications based on achievement of specified learning outcomes. Implementation of the NQF, which includes recognition of prior learning, lies with the South African Qualifications Authority (SAQA). Learning outcomes are specified by employer-dominated Sector Education and Training Authorities (SETAs). A skills development fund, alimanted by a 1% levy on enterprise payrolls, has been instituted. Eighty percent of the levy goes to the SETAs for sector-specific training programmes while 20% is used to finance other skills development initiatives outside the enterprises being levied-principle of "cross-subsidization".	Effective co-ordination of the TVE system, better coherence of the qualification structure, including accumulation of credits and recognition of prior learning. Greater market relevance of training programmes and financial involvement of industry in the development of skills.	The introduction of the NQF has been slow due to bureaucratic bottlenecks. Sustainability of the training levy depends on the continued cooperation of the enterprises being taxed.
Ghana	An apex body known as the Council for technical and vocational education and training (COTVE) has been established by an Act of Parliament under the Ministry of Education to oversee all TVE activities. A National	COTVE is expected to address the issue of multiplicity of oversight responsibility and testing	It is early days yet to assess the effectiveness of COTVE. However, policy measures are

Towards An Inventive Policy on Technical Education in Nigeria: Experience from Global Trend

	Apprenticeship Training Board is to be established under COTVE to handle issues concerning registration, training content, duration and certification under the auspices of the Ghana National Training Authority. The National Vocational Training Institute (NVTI) currently allows for the proficiency testing of illiterate trainees, including traditional apprentices, who submit their skills to practical, non-written evaluation. The Opportunities Industrialization Centres (OICs) provide post-training support and follow-up services to their trainees.	standards within the TVE system. Government has pledged to assume full responsibility for the first year of apprenticeship training. The NVTI initiative has allowed for illiterate trainees to enter the formal job market on the basis of their skills proficiency certificates. The transition from school to the world of work is eased by the OIC post-training support system.	needed to ensure that the proposed registration and regulation of private training providers does not result in the creation of a parallel formal system and a loss of diversity in training provision.
France	The Vocational Education and Training Authority (VETA) that has overall responsibility for coordinating vocational education and training has developed and tested new training approaches for the informal sector. The concept involved designing an integrated training programme (technical and managerial skills, and literacy if necessary) and finding local training providers for implementation. Attempts were made to link up trainees with credit and business development providers.	The quality of goods and services produced by the informal sector trainees involved in the programme improved, and sales and profits increased.	For the informal sector, a mix of technical and business skills (record-keeping, pricing, marketing, and customer relations) and literacy (if necessary) should be provided.
Brazil	The Braille NGO SITE (Strengthening Informal Training and Enterprise) ran a project to improve traditional apprenticeship training using master craftspersons recruited through Jua Kali associations as host trainers. The basic skills (technical skills, business skills, and teaching methods) of the host trainers were first upgraded. The objective was to strengthen the capacity of master craftspersons to provide quality training to their apprentices. In all, 420 master craftspersons were trained and 1400 apprentices received improved training from the trained host trainers.	Host trainers improved their training of apprentices by improving content and quality and concentrating training on productive activities. The number of their apprentices increased by between 15 percent and 20 percent.	Master craftspersons are not enthusiastic if training is only about technical skills. Also, collaboration with informal sector trade associations in the design and implementation of training programmes is of prime importance.
Benin	The Bureau d'Appui aux Artisans (BAA) seeks to complete the training of traditional apprentices. The BAA works through the various trade associations. The BAA links the master craftspersons and apprentices who are members of the trade associations to reputable public or private sector training providers for complementary training. The BAA's role is limited that of financier and technical adviser while the trade associations implement and supervise the training through activities such as collaborating in the development of new training modules, participating in the selection of trainees, negotiating the fee for the instructors, monitoring the attendance of the apprentices, co-organizing the trade test at the end of the training, and participating in the evaluation of the training. Master craftspersons also benefited from the training, especially skills upgrading, but such training took place in the workshop of one of the participating master craftspersons.	The training changed the approach and improved the methods of training of the master craftspersons. The apprentices who have received complementary training became more precise, responsible and confident.	The notion of complementary training of their apprentices is new to master craftspersons, so they need to be "hooked" to the idea. Public and private sector providers of complementary training need to be well endowed with excellent training equipment and instructors with enhanced technical skills and well adapted teaching methodologies.
India	A National Manpower Council brings together the Ministries of Manpower, Education, and Trade and Industry to determine manpower targets from the Institutes for Technical Education, the Universities and polytechnics. The Ministry of Education has the primary responsibility for ensuring longer term supply of skills in relation to national development targets. Training also involves the inculcation of shared cultural values and attitude development.	Training is relevant to labour market needs. Attention to attitude development leads to a hardworking and disciplined workforce.	Social capital or the development of shared national values is as important as human capital or technical skills formation.

Towards An Inventive Policy on Technical Education in Nigeria: Experience from Global Trend

Germany	The dual system of vocational training in Germany allows for learning to take place in a vocational school and in production facilities or in the service industry concurrently. Trainees receive training in a company three or four days per week and at a part-time vocational school one or two days per week. Training in the dual system is open to all young people. Job centres help in arranging placements for training and companies themselves also offer trainee positions. Training agreements must be signed between the company and the trainee. The purpose of the tuition received at the vocational school is to supplement the training received by students in companies at a theoretical level and to fill gaps in general education. The dual system is governed by legislation under the Vocational Training Act.	Approximately 70% of all school leavers, aged 15 – 19 years undergo training under the dual system. Vocational training is linked closely to the world work.	Dual training requires an industrial fabric that does not exist in many African countries. In company training can be expensive and companies must be willing to offer training.
China	TCVT attracted wide attention in the country provided 441,100 technical schools for adult technical schools in rural and urban concentrated on interest of local and social development. Joint effort by stakeholders training comes first before placement.	Solutions to problems skilled labour.	Promotes new reform of administration training first employment second.
Japan	Comprehensive and separate vocational schools. Enrolled upper secondary students in vocational education courses. Secondary school graduates begins work immediately after graduation career education through experiential learning.	Objective American occupation education reform policy support vocational education allowance Act 1957 10% monthly allowance for teachers of TEVT in service training TEVT & retraining centre for IT/Industry related education textbooks approves and subsidies,	Provision of learning is through creative productive experience independent study project knowledge is to promote understanding of fundamental knowledge lecture / practice
	Establishment of vocational Technical Education as a Required subject		
	Production of Technology Education		
	Introduction of fundamental and Equal opportunity in Education		
	Introduction of fundamentals of information “into lower secondary school” and the “independent study project” into upper secondary school.		
	Technology Education Teaching Methods		
	Initial in-service Teacher Training		
	Educational center for technology Education.		
	Support for Technology Education with enactment of law in 1951		
	Education Act Allowance of 10% monthly salary every monthly.		
	Education centres for technology Education		
	Support for Technology Education with enactment of law in 1951		
	Education Act Allowance of 10% monthly salary every monthly.		
	Education centres for technology Education		

From the various TVE programmes policies of the different countries analyzed it depicted that the policies at base on introduction regulatory bodies, embarking on complementary training, taking policy measures are device to regulate private trainers to avoid creation of parallel formal system. Provision of mix technical and business skills, visionary customary relation and literacy. Importance is placed on collaborating informal sector trade

association in the design and implementation of training programmes. Complementary training for craft persons to have fundamental basic knowledge in their fields. Provision of quality equipment for instrument, recognized that social capital or the development of shared values is as important as human capital and technical formation, gives room for dual training, encourages new reform administration, training first work second. Provision of learning through creative productive experience, independent study, project knowledge on intership to promote in depth understanding and knowledge acquisition.

4. Summary and Discussion of Findings

The study focused on provision of TVE programmes at secondary levels and post-secondary non-tertiary as well as discussion of policies guiding these programmes.

Research question 1 shown that nine countries did not report enrolment in lower secondary (ISCED 2) TVE programme while only a country did. Upper secondary education (ISCED 3) on the other hand, was the highest TVE programme provided eight countries (80%) reported enrolment in TVE programme while two (20%) countries did not however enrolment in TVE programme in post-secondary non-tertiary education (ISCED 4) was reported in six (60%) countries two (20%) countries did not and two (20%) countries showed no record. seven (70%) countries reported enrolment in tertiary (ISCED 5).

The low enrolment in lower secondary in some countries may be regarded as too early a stage to offer TVE; other countries, however, offer vocational programmes within compulsory education ages as a way to provide marketable skills to children who may not pursue further studies. In developed countries, pre-vocational may outnumber vocational programmes at this level, but, since they are included with general; programmes, they remain undetected for purposes of international statistics. In most countries, the high enrolment in upper secondary near showed that this stage follows the end of compulsory education and may thus be regarded as a suitable point for curriculum diversification. Enrolment in vocational programmes in post-secondary non-tertiary education (ISCED 4) is reported in 80 countries. Vocational provision at this level, even though still rare, has recently been growing as a result of the creation of new programmes and the reclassification of existing ones, which were formerly labeled (ISCED 3) or 5B.

Research question 2 showed that most common pattern of TVE programmes provided combined the three levels, lower secondary two (ISCED 2) with the two most-advanced levels: upper secondary (ISCED 3) and post-secondary non-tertiary (ISCED 4). The next frequent pattern of TVE programmes combined upper secondary and post-secondary non-tertiary followed by upper secondary which the least frequent enrolment. It is noticed that Nigeria has no enrolment pattern in TVE programmes has shown in table 2 however India depicts the highest pattern with 12 patterns, South African, Germany, France and China shared the same eight pattern while Ghana, Japan, U.S and Brazil share the least five pattern each.

Research question 3 depicts the various TVE programmes of the different countries analyzed it depicted that the policies at base on introduction regulatory bodies, embarking on complementary training, taking policy measures are device to regulate private trainers to avoid creation of parallel formal system, provision of mix technical and business skills, visionary customary relation and literacy. Importance is placed on collaborating informal sector trade association in the design and implementation of training programmes. Complementary training for craft persons is to have fundamental basic knowledge in their fields. Provision of quality equipment for instrument, recognized that social capital or the development of shared values is as important as human capital

and technical formation, gives room for dual training, encourages new reform administration, training first work second. Provision of learning through creative productive experience, independent study, project knowledge on internship is to promote in depth understanding and knowledge acquisition.

The diverse nature of TVE with its longitudinal and transversal dimensions suggest that the implementation of any strategy to revitalize the sector is more likely to be successful within a national policy framework with clear implementation guidelines and policy roles for the various actors as well as action plans for resource mobilization and allocation. The national policy framework should address issues such as improving the operational flexibility and responsiveness of the entire TVE system as well as the efficiency of capacity utilization of individual TVE institutions in terms of their available human, physical, and financial resources through performance reviews and audits; strengthening the linkages between TVE and employment promotion; Upgrading the knowledge and skills of TVE managers and professional staff to meet the requirements of managing the new strategy; Re-orientation of funding mechanisms towards output-based funding, i.e., linking funding to performance; and Skills training in the non-formal and informal sectors of the economy. Above all, state political commitment to the revitalization effort can make the difference between success and failure.

From the findings above, if poverty be eradicated and unemployment reduced, and technological driven in Nigeria, there is need to create and implement policies that would encourage innovations, access and development of technical and vocational education programmes in Nigerian.

5. Recommendations

The Nigeria Government should take it as a challenge to participate in the provision of technical and vocational education programme at the lower secondary school this is because experience in technology can only be gain by participating in it.

Importance should in placed collaboration informed sector trade association in the design and implementation of training programmes.

The formulation of such policy should be assigned to a task force with cross-sectoral representation of all major stakeholders, including representatives of public and private training providers, employers, government ministries responsible for human resource development, development partners, civil society, and experts. The report of the task force will then form the basis for the national TVE policy.

Dual training should be allowed. Encouragement for new reform administration training which is training first work second should be recognized.

Nigeria should create and implement policies that encourage innovations, access and development of technical and vocational education programmes in Nigerian Educational system.

References:

- Ashton D. and Green F. (1996). *Education and Training for Development: The Political Economy of Skill formation in East Asian Newly Industrialised Economies*, Routledge, London.
- Association for Career and Technical Education (2007). "Career and technical education's role in American competitiveness", Issue Brief, Association for Career and Technical Education, available online at: http://www.acteonline.org/resource_center/issue_briefs.cfm.
- Atchoarena D. and Green F. (2002). *Revisiting Technical and Vocational Education in sub-Saharan Africa: An Update on Trends, Innovations and Challenges*, UNESCO, IIEP.
- Blaug M. (1973). *Education and the Employment Problem in Developing Counties*, International Labour office, Geneva.

- CEDEFOP (1992). *Vocational Education and Training in Denmark*, Berlin.
- Council on Competitiveness (2007). *Competitiveness Index: Where America Stands*, Council on Competitiveness.
- Dore R. and Sako M. (1989). *How Japanese Learn to Work*, London: Routledge.
- European Commission (1999). *Continuing Training in Enterprises: Facts and Figures*, European Commission Brussels.
- European Commission (2001). *Lifelong Learning Memorandum*, European Commission, Brussels.
- Green A. (1999). "East Asian skills formation systems and the challenge of globalization", *Journal of Education and Work*, Vol. 21, No. 3, pp. 253–279.
- Green A. (2002). "International benchmarking study of education systems — report on Singapore for DFEE", unpublished, 2000.
- Green A., Hodgson A. and Sakamoto A. (2000). "Financing Vocational education and training", in: Descy P. and Tessaring M. (Eds.), *Training in Europe, Second Report on Vocational Training Research in Europe 2000* (Vol. 1), Cedefop Reference Series, Office for Official Publications for the European Communities, Luxembourg.
- Organization for Economic Cooperation and Development (2008). *Education at a Glance 2008: OECD Indicators*, OECD, September.
- Paris S. and Wagner K. (1985). "Schooling standards in England and Germany", *National Institute Economic Review*, No. 112, pp. 53–55.
- Steedman H. and Green A. (1997). "Into the twenty first century: An assessment of British skill profiles and prospects", Special Report, Centre for Economic Performance, LSE, London.
- Tilak J. (2002). "Vocational education and training in Asia", in: Keeves P. J. and Watanabe R. (Eds.), *The Handbook on Educational Research in the Asia Pacific Region*, Kluwer Academic Publishers.
- UNESCO (1997). *International Standard Classification of Education 1997*, UNESCO, Paris.
- UNESCO (2000). *The Dakar Framework for Action: Education for All — Meeting Our Collective Commitments*, UNESCO, Paris.
- UNESCO (2003). *Education for All — Global Monitoring Report 2003/4: Gender and Education for All: The leap to Equality*, UNESCO, Paris.
- UNESCO (2004a). *Synthesis Report: improving Access, Equity and Relevance in Technical and Vocational Education and Training*, UNESCO, Bangkok.
- UNESCO (2004b). *Education for All – Global Monitoring Report 2005: The Quality Imperative*, UNESCO, Paris.
- UNESCO and ILO (2002). *Technical and Vocational Education for the 21st Century: UNESCO and ILO Recommendations*, UNESCO and ILO Paris and Geneva.
- UNESCO Institute of Statistics (2005). *Global Education Digest 2005*, UNESCO Institute of Statistics, Montreal.
- UNESCO Institute of Statistics (2006). *Global Education Digest 2006*, UNESCO Institute of Statistics Montreal.
- UNEVOC (1996). *The Development of Technical and Vocational Education in Africa*, UNESCO, Dakar.
- UNEVOC (2004). *The Bonn Declaration on Learning for Work, Citizenship and Sustainability*, UNEVOC, Bonn.