Challenges of Technical and Vocational Education and Training and Educational Stakeholders in the Volta Region of Ghana

Agbeyewornu Kofi Kemevor (PhD)

Department of Graphic Design University of Education-Winneba P.O.Box 25, Winneba, Ghana *Kemevor222@gmail.com*

Johnson Kofi Kassah

St. Francis College of Education P.O. Box 100, Hohoe, Ghana Johnson.kassah@yahoo.com

Abstract: The purpose of this paper was to find out the attitude of Educational Stakeholders towards challenges confronting Technical and Vocational Education and Training (TVET) in the Volta Region of Ghana. The qualitative research method with questionnaire and interview guide helped to examine the nature and scope of the Technical and Vocational education in Ghana as well as the roles it plays in creating jobs for unemployed Ghanaians and to minimize poverty and the challenges of Technical and Vocational Education in Ghana. The stratified random sampling method was used in sampling out the various subjects. These comprised stakeholders such as parents, teachers, employers, government and private institutional heads, alumna and, students of second cycle institutions were selected for the study. These groups were chosen because they would provide relevant information needed for this paper.

Technical and Vocational Education and Training in the Volta Region of Ghana faces a lot of challenges. This paper revealed that technical and vocational institutions in Ghana are inadequate considering the number of Junior High School graduates in the system. This has resulted in large class size in the few existing Technical and Vocational Institutions. The large class sizes do not match with the supply and provision of training resources. This does not allow the instructor to attract and sustain the attention of all students during demonstration lessons. Also, the infrastructure and training facilities of the institutions are in deplorable state resulting in outdated training content. This paper recommended Ministry of Education and other stakeholders in charge of Technical and Vocational Education and Training to formulate policies that will make TVET meet international standard so that graduates of TVET also meet the demands of international labour market.

Keywords: On-the-job Training, Trade School, Informal train in, Rational, Nature, and Scope.

1. INTRODUCTION

The importance of Technical and Vocational Education and Training (TVET) in nation building cannot be over-emphasized. TVET has been recognised as constituting a vital segment of Ghana educational system and human resource development initiative for producing the requisite skilled manpower needs for Ghana's overall development (Baah-Wiredu, 2008). Indeed, technical and vocational education is Major Avenue for industrial development as well as for economic and social progress of any country. It is TVET that produces the critical mass of the requisite skilled, technical and professional manpower needed for national development. Without the skilled technical manpower produced by vocational and technical institutes, technical development would virtually grind to standstill.

Until 1850, the development of education in Ghana (then Gold Coast), was entirely in the hands of the Christian Missionaries. The system was devoid of any cohesive national policy. But Annor (1989) writes that before Europeans came to colonize Africa, Africans had a way of producing artifacts.

Technical and vocational education had been emphasized in the education system in Ghana since the colonial era. It started with the missionary schools where children were given training in the various trades, for instance in carpentry, masonry, blacksmithing and others. The sixteen principles of education proposed by Sir Gordon Guggisberg, the then Governor of the Gold Coast between 1914-1927 called for the provision of trade schools with technical and literacy education that would fit young men to become skilled craftmen and useful citizens (Mc-William and Kwamena-Poh, 1975).

This resulted in the establishment of four government trade schools (technical and vocational schools) in 1922 in the Ashanti, Eastern, Greater-Accra and Central regions.

Courses offered at that time were Woodwork, Needlework, Catering, Metalwork and Brickwork, which were considered essential for improving the quality of life of the people. As noted by Foster (1965), the aim of these schools was to encourage "the development of habits of steady industry leading to a settled and thriving peasantry" (UNESCO, 1984).

The desire to improve the socio-economic life of the people through technical and vocational continued to engage the attention of the colonial government. By 1925, another technical and vocational school had been established at Yendi in the Northern region bringing the number of such schools up to five. From then on there were steady developments until the Second World War. The established schools were then converted into army schools in which craftsmen of all sort were trained to help the war effort (UNESCO, 1984).

When the war was over, the schools were renamed 'Trade Schools' and courses such as Blacksmithing, Metal Machining, Auto mechanics and Electrical practice were added to the existing ones.

The Government felt the need to increase the number of schools from five in 1953 to eight in 1956 to train sufficient skilled manpower to meet the demand of the industry. In the course of these developments, the schools were renamed 'Technical Institutes'. These then began to offer courses leading to the award of City and Guilds certificates (UNESCO, 1984).

After independence, previous governments of Ghana had periodically reformed the education and training system in the country, emphasizing on Technical and Vocational Education and Training with the aim of making our educational system more relevant for the world of work, to boost the informal economy in order to minimize unemployment and poverty. Both private individuals and non-governmental organisations (NGOs) have also been playing complimentary roles in helping to provide skills training to the Ghanaian citizenry especially those in the informal sector (Agbenyo, 2010).

1.1. Statement of the Problem

Technical and Vocational Education and Training (TVET) plays critical role in national development of every country. One of the most important features of TVET is its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. Another important characteristic of TVET is that it can be delivered at different levels of sophistication. This means that TVET institutions can respond to the different training needs of learners from different socioeconomic 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 TVET to improve their livelihoods. The advanced countries that Ghana borrows resources from are in that state today because their stakeholders have respect for Technical and Vocational Education and the people in that field.

In spite of the contribution that Technical and Vocational Education and Training can make in developing the formal and informal economy, not much has been done to address the challenges the programme faces in order for it to be more beneficial to the formal and informal sector of economy. This study aims to assess the roles, nature, scope and challenges of TVET Programme and its significance for improving Technical/Vocational education in Ghana.

1.2. Purpose of the Study

The research was conducted to identify the role of TVET as an ingredient in the poverty reduction machinery and as the engine of improvement of the Nation's Economic Growth.

To discuss the nature and scope of the TVET programmes in the Volta Region of Ghana.

To examine the current challenges of the TVET programme and recommend possible solutions to the challenges.

1.3. Research Questions

- What are the nature and scope of Technical and Vocational Education and Training in Ghana?
- What are the roles of Technical and Vocational Education and Training in Ghana?
- What are the challenges of Technical and Vocational Education in Ghana?

International Journal of Humanities Social Sciences and Education (IJHSSE)

- What are the causes of the challenges of Technical and Vocational Education in Ghana?
- Will Ghana develop if these challenges are addressed?

1.4. Significance of the Study

The study will help to create awareness of the nature and scope of the TVET programmes in Ghana. It will help to identify the role of TVET as an ingredient in the poverty reduction machinery and as the engine of improvement of the Nation's Economic Growth.

The study will also help the government to assess the attitude of Educational stakeholders towards TVET Programme in Ghana.

It will help the ministry of education to identify the current opportunities and challenges of the TVET programme and its implication for national development in Ghana.

2. METHODOLOGY

2.1. Research Design

A descriptive survey design was used for the study to obtain information concerning current challenges of TVET in the Volta Region of Ghana and educational stakeholders.

2.2. Population, Sample and Techniques

The accessible population for this research included stakeholders in South and North Tongu districts, Ketu South and North districts and Keta district of Ghana were targeted as the population for the study. A total of eighty respondents were contacted for the research through a purposive sampling technique.

2.3. Research Instruments

The research instruments used for collecting data were focused groups interview, questionnaire and observation which captured the challenges faced by TVET especially with the supply and provision of training resources.

2.4. Data Analysis

The data obtained from questionnaire were presented and analysed with the help of frequency tables. Additionally, explanations were attached to the tables for clarity. As needed, frequency counts and valid percents were obtained. In the analysis, the Likert categories of strongly agree, agree, uncertain, disagree and strongly disagree were used.

3. RESULTS AND DISCUSSION OF FINDINGS

3.1. Results

The results obtained are presented in tables below

Table1. TVET was introduced to solve unemployment problems in Ghana

	Frequency	Percent
Strongly Agree	45	56.25
Agree	23	28.75
Uncertain	2	2.50
Disagree	7	8.75
Strongly Disagree	3	3.75

As shown in Table 1, it is overwhelming to discover that, 85% of the respondents sampled indicated that, technical and vocational education and skill training were introduced to solve unemployment in Ghana. On the other hand, 12.5% disagreed that TVET was not introduced to help solve unemployment in Ghana. However, 2.5% neither agreed nor disagreed. This confirms that TVET for that matter deserves the needed attention to achieve its goals.

Agbeyewornu Kofi Kemevor & Johnson Kofi Kassah

	Frequency	Percent
Strongly Agree	10	12.5
Agree	62	77.5
Uncertain	1	1.25
Disagree	5	6.25
Strongly Disagree	2	2.5

The data in table 2 revealed that the number of respondents who agreed outnumbered their counterparts who disagreed by 90% demonstrating that, economic and social development can be achieved if much is done about TVET in Ghana. Therefore, there is the need for stakeholders of TVET to put in mechanisms that will enable TVET to grow and develop Ghana's economy.

Table3. Technical and vocational institutions have enough workshops, tools, equipment and materials for their practical works.

	Frequency	Percent
Strongly Agree	7	8.75
Agree	3	3.75
Uncertain	2	2.5
Disagree	20	25.0
Strongly Disagree	48	60.0

Data collected in table 3 clearly showed that the technical and vocational institutions did not have enough workshops, tools, equipment and materials to deliver their practical works. 85% of respondents sampled disagreed that technical and vocational institutions had enough workshops, tools, equipment and materials to deliver, while only 12.5% were in agreement that technical and vocational institutions have enough workshops, tools, equipment and materials to deliver their practical works. It is however clear that educational stakeholders are not doing well in terms of providing workshop, tools equipment and materials for teachers and instructors to teach the practical aspects of the programme. This inadequate supply of educational resources has given room to teachers focusing more on theoretical teaching and learning and, hence contribute to students' not being proficient in practical skills acquisition. The situation has led to poor performance of graduates in the labour market.

3.2. Discussion of Findings

The discussion has been organized into sub-sections to reflect the bounds of addressing each research question.

3.2.1. Nature of Technical and Vocational Education

Technical and vocational education stepped up over a century ago by the colonial Government. The aim was to encourage "the development of habits of steady industry leading to a settled and thriving peasantry" (Foster, 1965).

As one moves from country to country, technical and vocational education is given different names: vocational education and training (VET), technical and vocational education (TVE), technical and vocational education and training (TVET), vocational technical education (VTE), or vocational and technical education and training (VOTEC). They all mean the same thing. Traditionally, technical and vocational education refers to studies in area of technology, applied sciences, agriculture, business studies, industrial studies and visual arts. The universal justification for vocational technical education has been to provide occupational skills for employment. However, this keeps changing and vocational technical education has been assuming different meanings and purposes due to global demographic, social, technological, economic, and political developments. These developments put pressure on governments and policy makers to keep expanding the purposes and expectations of vocational technical education. The research revealed that, there are now five justifications for governments' worldwide to invest in vocational technical education. These are:

- To increase relevance of schooling by imparting individuals with skills and knowledge necessary for making the individual a productive member of the society.
- To reduce unemployment as a result of provision of employable skills especially to the youth and those who cannot succeed academically.

- To increase economic development due to the fact that it improves the quality and skill level of the working population.
- To reduce poverty by giving the individuals who participate access to higher income occupations.
- To transform the attitude of people to favour occupations where there are occupational prospects of future (Lewin, 1997).

Various approaches have been adopted around the world to provide vocational technical education. The research has identified four different approaches to vocational technical education. The first approach is where the whole school curriculum is re-oriented towards providing occupational skills. There is also the parallel system approach, where vocational technical institutions exist alongside a general school system with a conventional academic orientation. This is the most widely used approach (Lewin, 1997).

The third approach is called the core curriculum option approach. This approach provides vocational technical programs within the structure of general school curriculum as a minor but substantial system. The vocational subjects are incorporated into the system as compulsory core subjects or as options. The fourth, is the non-formal system approach which provides opportunities for out of school youth to acquire vocational technical skills, which may be used either to obtain employment in the formal sector or for promotion of self- employment and the development in the informal sector. These approaches are used either individually or in combination, depending on what policy makers think is suitable. From one country to the other, vocational technical education is provided from a broad range of institutions: vocational technical institutions, polytechnic institutions, universities, institutes of technologies, and apprenticeship centres. Song seng (2004) assented that TVET systems are dynamic in nature. They contribute meaningfully to the development of a country and must be responsible to the needs technological advancement and globalization trends.

3.2.2. Access to Technical/Vocational Education in Ghana

Students who complete Basic Education may enter a Technical Institute or a Senior High Technical School to pursue a 3-year programme. Senior High School/Technical or Technical institute graduates may proceed to the University for Certificate, Diploma and Degree Courses or to Polytechnics for Higher National Diploma (HND) courses; or any other non-tertiary courses depending on the performance of the graduates. Those who complete technician courses may proceed to the Polytechnics for HND courses. Graduates from Polytechnics may do top-up for their first Degree or enter any of the Universities to undertake first Degree courses. Postgraduate degrees (Masters or Doctorate) may only be pursued in Universities only.

3.2.3. Scope of Technical and Vocational Education

Technical and Vocational education and training are delivered at three levels, namely, Basic Education, Second-Cycle and Tertiary Education levels. At the Basic Education level, technical Education start from Junior High School while vocational education starts from the Primary School (1-6) and it is termed Creative Arts. At the Second-Cycle level, technical and vocational education is provided in the Senior High/ Technical Schools, Technical Institutions, Vocational Schools/Training Centres and other post-basic education training institutions. Technical and Vocational education at the tertiary level is delivered at the Colleges of Education, and other professional institutions, with the Polytechnics and Universities being the highest level. Below is the breakdown of scope of Technical and Vocational Education from basic to university level:

3.2.4. Scope of Technical Education

3.2.4.1. Primary

There is no element of Technical Education at the primary level of education. The Technical Education instigates at the Junior High School level.

3.2.4.2. Junior High School

At this level, Technical and Vocational Education is labeled Basic Design and Technology. The subject combines the elements of the former courses in Pre-Technical Skills and Pre-vocational Skills into one subject.

Agbeyewornu Kofi Kemevor & Johnson Kofi Kassah

The subject is intended to create individuals who are versatile and creative and who are capable of combining and using a variety of knowledge and skills in product development. The subject is organized in two parts: Core Skills and Options. The motive of the core aspect of the programme was to equip the pupils with General Knowledge in all the three options (Pre-Technical Skill, Visual Arts and Home Economics). The option on the other was to bequeath the pupils the opportunity select their own area of interest which will lead them to possible careers in life.

3.2.4.3. Core Skills

The Core Skills include Basic Life Skills: maintaining good health, cooking foods, meal service, basic processes in sewing, basic home repairs: electrical and furniture repairs. Drawing: Free-hand drawing; perspective, isometric and oblique drawings. Designing: Elements and principles of design; basic concepts of colour; extraction of colour from different sources; application of colour to achieve a purpose, Problem identification: Sources of problems; problem definition; investigating a problem, selecting a solution, pre-imaging the solution and solution: developing a sketch of the solution; basic operational sequence of processes and activities in each of the subject options (Pre-Technical, Home Economics and Visual Arts) towards making a product/artifact, Entrepreneurial Skills: Factors to consider in setting up and managing a small scale business; business risks; introduction to the job market, packaging, planning and mounting an exhibition. Since the majority of pupils who enter Junior High School may terminate their formal education at this level, entrepreneurial skills and introduction to the world of work are included as part of the core knowledge and skills that pupils should acquire before completing this level of education (Curriculum Research and Development Division, 2007).

3.2.4.4. Selection of Options

Each pupil will be expected to indicate his/her option of interest before the end of the second term of JHS1 after having gone through almost two terms of instruction in the core principles and skills of the three optional areas (Curriculum Research and Development Division, 2007).

3.2.4.5. Options

3.2.4.6. Option 1: Home Economics

Under Home Economics option, the areas covered are Tools and Equipment, Health and Hygiene, Food and Nutrition, Fabrics for sewing, Food preparation, Processes in sewing, Food commodities, Garment construction and Meal and menu planning

3.2.4.7. Option 2: Pre-Technical Skills

The subject areas Pre-Technical Skills cover include Metalwork, Brickwork, Plastics, Woodwork, Basic Electrical and Electronic Circuits, Technical Drawing.

3.2.4.8. Option 3: Visual Arts

The Visual Arts option covers Visual Communication, Weaving and Stitching Modeling, Casting and Carving, Construction and Assemblage, and Fabric and Leather Decoration.

3.2.4.9. Senior High/Technical School

At the Senior High/Technical School level, Technical Education covers Applied Electricity, Auto Mechanics, Building Construction, Electronics, Metalwork, and Technical Drawing.

3.2.4.10. College of Education

At the College of Education level, Technical Education covers History of Technical Education, Design and Making, Woodwork, Blockwork, Metalwork, Technical Drawing, Electronics, Electricity, Fundamentals in Auto Mechanics, Assessment, Graphic Communication, Methods, Tools, Equipment and Materials, Methodology and Entrepreneurship.

3.2.4.11. Polytechnic

Technical Education at the polytechnic level covers, Mechanical Engineering (Automobile, Plant, Production and Refrigeration & Air Conditioning options), Building Technology, Civil Engineering, Production Engineering, Telecommunication Engineering, Electricity/ Electronics, Oil and Gas, and Furniture Design and Production.

3.2.4.12. University

At this highest level of education, the Technical courses offered are Civil Engineering, Material Engineering, Mechanical Engineering, Electrical/Electronic Engineering, Aerospace Engineering, Petroleum Engineering, Telecommunication Engineering, Metallurgical Engineering, Architecture, Building Technology, Wood Technology Education, Mechanical Technology Education, Construction Technology Education, and Mining Engineering.

3.2.5. Scope of Vocational Education

Vocational education in Ghana has two components. These are Visual Arts and Home Economics.

3.2.5.1. Primary

At this level, Doodling and colouring of shapes using tools and materials such as paper, card, crayon, pencil, arm-board, chalk, felt pen, and water hues are popular. Other art works practiced here are Composition, Clay Work, Construction and Assemblage and Paperwork, Weaving, Stitching and Lacing, Printmaking (direct, mono, frottage and stencil printing), Lettering, Casting, Book Binding, Tie-Dye, and Batik

3.2.5.2. Senior High/Technical School

The scope of Visual Arts Education covers Textiles, Graphic design, Picture-making, Basketry, Sculpture, Ceramics, Leatherwork, and Jewellery.

The Home Economics aspect of Vocational Education in Ghana includes Food and Nutrition and Clothing and Textiles. The theoretical and practical aspects of the various subjects are given crucial attention.

3.2.5.3. College of Education

At this level, the areas of Vocational subjects study include Textiles, Graphic Design, Picture-making, Paper craft, Basketry, Bead making, Calabash Art, Pottery/Ceramics, Sculpture, Leatherwork General Knowledge in Art, Catering and Sewing.

3.2.5.4. Polytechnic

Graphic Design, Textiles, Painting & Decoration, Sculpture, Ceramics, Leather Works, Fashion design and Textiles and Hotel Catering and Institutional Management/ Hospitality Management are the range of Vocational Education.

3.2.5.5. University

Here, Vocational Education taught are Textiles, Graphic Design, Leatherwork, Jewellery, Sculpture, Ceramics, Basketry, Painting, Food Science and Technology, Fashion and Textile Design Education, Catering and Hospitality Education, Art Education, and Art and Culture.

3.2.6. The Roles of Technical and Vocational Education and Training (TVET)

Technical and Vocational Education and Training play an integral role in the growth and development of human capital and the economy. Technical and Vocational Education and Training provide an opportunity for the youth to be self-employed and an avenue to be self-reliant in developing themselves and contributing their quota to the development of the country.

Technical and vocational education is extremely important in improving and progressing Ghana's industries while supplying a capable work force. Technical and Vocational education, if cheap and widespread, can greatly reduce unemployment rates by giving people useful, moneymaking skills. Technical education can greatly improve efficiency in many industries and can lead to brilliant innovation in others (such as renewable energy).

The economic competitiveness of Ghana also depends on the skills of its work force. The skills and competencies of the work force, in turn, are dependent upon the quality of Ghana's education and training systems. Technical and vocational education is perceived as one of the crucial elements in enhancing economic productivity. Based on social efficiency theory, schools should prepare and supply future workers with appropriate knowledge and skills to enhance their productivity and, therefore, promote economic growth.

Nevertheless, technical and vocational education has sometimes become a tool for addressing the economic, political, and social crises that are threatening the political and economic stability of Ghana. Rising unemployment, lack of skilled workers, high dropout rates, and the changing demographic nature of the work force have placed the issue of workforce education high on the educational reform agenda.

Traditionally, technical and vocational education is intended to prepare students for specific skills. However, in the present work environment, workers are expected to perform more broadly-defined jobs. Therefore, a broad-based education is required. In the new economic environment, technical and vocational education is expected to produce an educated, skilled, and motivated work force.

3.2.7. Challenges Facing Technical and Vocational Education in Ghana

Technical and Vocational Education Ghana faces a lot of challenges. This paper revealed that technical and vocational institutions in Ghana are inadequate considering the number of Junior High School graduates in the system. This has resulted in large class size in the few existing Technical and Vocational Institutions. The large class sizes do not match with the supply and provision of training resources. This does not allow the instructor to attract and sustain the attention of all students during demonstration lessons. Also, the infrastructure and training facilities of the institutions are in deplorable state resulting in outdated training content. Consequently, the quantity and quality of the stock of trained national workforce have been affected. The paper found out that while the government manages and resources 500 and over senior high schools in the country, only 21 technical and 29 vocational institutions are managed and resourced by both the Ministry of Education and the Ministry of Manpower Development and Employment, the two main bodies responsible for education and training in the country (Government of Ghana, 2003).

Technical and Vocational institutions require workshops, tools, equipment, and materials for demonstration and practical works. Generally, there is always a short supply of training materials and basic tools by the stakeholders. Since technical institutes mostly rely on materials and tools for training, their short supply would negatively affect practical skills acquisition. Technical and Vocational subjects require more instruction and practical time than arts and science education. Vocational technical subjects need to be allotted sufficient time to satisfy their practical goals. Vocational technical education requires skilled and proficient teachers. Teacher preparation is therefore very important. The nature of industrial attachment programme in the technical and vocational institutes is of momentous concern, and the paper collaborates the observation by Roeske (2003) that, notwithstanding the important role industrial attachment plays in instilling into trainees the practical skills, know-how and understanding necessary for employment in a particular occupation or trade, many formal training have shown little or no serious interest in encouraging and monitoring technical and vocational trainees to undertake such attachments. If this situation continues in the technical and vocational institutes trainees are likely to enter into the labour-market with little or no practical learning experiences which are relevant to the world of work or are a foundation for entry into further education and training for specific occupations. Vocational technical institutions must also develop strong cooperative linkage between the school and industry in order to design and implement programs that will meet the needs of industry. Another most important challenge facing vocational technical education is the fact that planners have to design programs and train individuals for future jobs on the basis of past and present labour market information. These notwithstanding, the intense need for economic growth and development and international competitiveness associated with the rise of concerns for market- oriented education continue to make vocational technical education essential. This is because a country cannot achieve economic and social development and remain competitive on the global scene without skilled and productive labour force. The biggest challenge facing vocational technical education therefore is how to provide quality training programs that will ensure the development of productive and efficient workforce capable of meeting international competitiveness in spite of all the above (Government of Ghana, 2003).

One of the greatest challenges facing TVET in Ghana currently is the low prestige it enjoys from the public. Most parents and guardians have dreams of their charges becoming Doctors, lawyers, or accountants. Trades like auto mechanics, hairdressing, and carpentry are considered to be the preserve of children who do not have the mental ability to pursue a University education. These trades are also thought to be better suited for those coming from the bottom rungs of the socio-economic ladder. (Council for Technical and Vocational Education and Training, 2012-2013)

Aside inadequate financing and negative perceptions, the socio-economic environment and the contextual framework within which technical and vocational education is delivered in Ghana is characterised in general by other factors such as huge numbers of poorly educated, unskilled and unemployed youth, uncoordinated, unregulated and fragmented delivery systems, low quality gender and economic inequities, weak monitoring and evaluation mechanisms, and poor management and ill-adapted organizational structures (African Union, 2007).

4. CONCLUSIONS

From the sources cited in this study, it can be concluded that the success of the TVET depends partly on how educational stakeholders lay emphasis on TVET in Ghana. There is generally inadequacy in the provision of instructional materials which leads to focusing more on theoretical teaching leading to trainees lacking proficiency in their chosen fields of specialization.

Large class sizes do not match with inadequate supply and provision of training resources. These inadequacies negatively affect the necessary skills for the world of work.

The importance of industrial attachment is relegated to the background instead of giving it a priority. This seriously affects training with a resulting mismatch with job market expectations. There are also inappropriate teaching methods used for practical teaching which need to be addressed.

REFERENCES

African Union, Strategy to Revitalize Technical and Vocational Education and Training

- (TVET) in Africa, Paper presented at a Meeting of the Bureau of the Conference of Ministers Of Education of the African Union (COMEDAF II+) 29-31 May 2007 Addis Ababa Ethiopia (2007).
- J.S. Agbenyo, ICT, Technical and Vocational Training in Ghana, Telecentres African Rural Community Services Delivery (2010).
- Amateye T.L., The role of the indigenous Ghanaian textile industry in relation to the president's special initiative (PSI) on textiles and garments. Unpublished PhD Thesis.UST, Kumasi-Ghana (2009).
- S. B. Annor, Education, Kumasi City Printing Press (1989).
- K. Baah-Wiredu, Promoting quality technical and vocational education and training- the impact on the Ghanaian economy, A speech read at the conference of association of Principals of Training institutions (APTI) at ST. Paul's Technical Institute at Kukurantumi (2008).
- C.H. Busha, & S.P. Harter, Research methods in librarianship Techniques and Interpretation, Orlando, FL: Academic press (1980).
- Curriculum research and development division (CRDD), Teaching Syllabus for Basic Design and Technology (Junior High School), (2007).
- Encyclopedia Britannica, ultimate reference suite, Chicago, Encyclopedia Britannica (2008).
- P. Foster, Education and social change in Ghana. UK, Rutledge and Kegan Paul (1965).
- Government of Ghana, Ghana's Education System, Accra, Ghana.
- Google.com on 20th January, 2009. http://www.ghana.gov.gh/ghana/give_equal_atention_vocational
- _and_technical_Speech on Technical Vocational Training: Retrieved from education_director.jsp) (2003).
- K. M. Lewin, Education and development. Defining the issues, Educational Research paper No. 06. Centre for International Education, University of Sussex (1997).
- Mc William & Poh, The development of Education in Ghana, London, Londmans Group (1975).
- J. Roeske, Skills training strategies to combat worst forms of child labour in the urban informal economy: Ghana Country Study, Marseilles, France: International Programme on the Elimination of Child Labour (IPEC) (2003).
- L. Song Seng, Vocational Education Challenges and strategies, Suzhou China, International Symposium (2004).

UNESCO Regional Conference on Art Education in Africa Unesco: Regional Conference On Art Education in Africa, Port Elizabeth, South Africa. Retrieved 20th February, 2012, from Google online database: Retrieved from google.com. *http://portal.unesco.org/culture/en/files/*19768/10819715533baffoe.pdf/baffoe.pdf.

AUTHORS' BIOGRAPHY



Agbeyewornu Kofi Kemevor is a lecturer in the department of Graphic Design at the University of Education, Winneba. He holds a PhD in Art Education, from KNUST – Kumasi. He is a trained teacher by profession.

He has taught design for several years at all levels of undergraduate and graduate education programmes and has extensive examining experience.



Johnson Kofi Kassah is a Tutor in the department of Vocational Studies at St. Francis' College of Education, Hohoe Volta Region. He obtained his M-Tech Education in Fashion and Textiles from University of Education, Winneba, Ghana in 2013.

He has being an art Tutor at secondary schools and college of education for the past 9 years. He is also an assistant examiner in college of education.