

TVET STIGMATIZATION IN DEVELOPING COUNTRIES: REALITY OR FALACY?

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ABSTRACT: *TVET (Technical Vocational Education and Training) programmes have been in existence in most developing African countries including Ghana for decades. But their intended productive and inventive output of producing readily employable and or self-employable graduates, and serving as real economic bail out for the deteriorating economies in Africa is yet to be achieved. This worrying development has culminated in a stigmatization towards the study of the TVET programmes in higher institutions in Ghana. This paper therefore explores briefly the historicity of Technical Vocational Education and Training (TVET) in Ghana, including the tertiary-based TVET institutions (particularly, polytechnics and universities). Through in-depth inquiry, this paper investigates the root cause of the stigmatization and its concomitant effects on the nation, the learners and the higher institutions of training in such programmes. Using comparative analytical methodology, the study revealed that there is curriculum deficiency in TVET programmes; logistical challenge due to inadequate funding; poor linkage of TVET to industry; unfair trend of inappropriate categorization of graduates on the field and a continuous chain of leadership crisis. The paper recommends more dynamic, innovative and modern curriculum review to include product and industrial design courses such as animation, game design, robotics, interior decoration, multimedia design, aircraft, automobile and ship design, structural and industrial painting and medical engineering.*

KEY WORDS: School-Based TVET, Stigmatization, Industry, Productivity, Demand-Driven

INTRODUCTION

Education, be it formal, informal, non-formal, academic, technical or vocational has been used in the world from ancient cultures to the present as a means of acquiring knowledge (ILO, 2012), skills, attitudes, values and competencies which are applied to unearth hidden knowledge and apply them effectively to achieve socio-cultural, economic, political and technological developments. Basically, it prepares the youth for the job market either to be employed or become self-employed (Netherlands Organization for International Cooperation in Higher Education, 2010). It is and continues to be a tool for service to humanity. History tells us that many advanced countries in Asia, Europe, Americas and others realized the significance of education during their developing stages. They developed systems based on their cultures and philosophies which served as pivot for their developments. The humanism philosophy was used as a driving force by Europeans to propagate their renaissance ideology between AD 1400 and AD 1600 and it was used as the guiding principle for their educational system (Getlein, 2002). It was the renaissance spirit that ushered in the industrial revolution which became the basis of modern technological and industrial development in Europe and America (Bürdek, 2005). The Bauhaus school of Art and Craft established by Welter Gropius, the renowned 20th century German master architect in 1919 at Weimer in Germany, was also used as a think tank in Europe for technological inventions in many fields which served as the basis to resuscitate Europe from the destructions of the First World War (Bürdek, 2005).

The concept of technical and vocational (VOTECH) education is not new to Africa. During the pre-colonial period, indigenous African societies practiced informal education (McWilliam & Kwamena-Poh, 1975). The informal sector accounts for over 90 percent of all skills training in Ghana (Africa Union, 2007). In pre-colonial times, the Ghanaian craftpersons were the inventors, designers and technocrats (Essel, 2013a) who fashioned and produced societal everyday world of objects. These creators were very much feared, revered and hailed in the society (Amenuke, Dogbe, Asare, Ayiku & Bafoe, 1991). There was no contemptuous dichotomy over which craft occupation was more of intellectual activity until the introduction of formal school education by the colonialists. Since then, formal education including VOTECH has become the focus of all African countries till date.

TVET IN HISTORY

Even though formal education is offered across Africa, its emergence in sub-Saharan Africa can be traced from the Gold Coast (colonial name of Ghana) era. It began with Ghana's early contact with the colonialists. McWilliam and Kwamena-Poh (1975) give a hint of formal TVET education in the Gold Coast. They point out that Governor Gordon Guggisberg and the Basel Mission established Agricultural and technical training colleges at Asuansi, Akuapim Akropong and Abokobi in the 1920s. Before the tenure of Guggisberg, governor Rodger saw the need for technical education and therefore set up Accra Government Technical School in 1909 which was later transferred to Takoradi and now called Government Secondary Technical School (Amoah, 2003). Edusei (2004) and Duku (2012) report on the introduction of art education at Achimota

College in 1927. Takoradi and Accra Technical Institutes were established in the mid 1950s and other technical, vocational and agricultural schools were subsequently established by Christian Missions, the state and individuals. In 1965 for instance, Government Technical Institute at Takoradi was upgraded to a Polytechnic (Takoradi Polytechnic Website, 2012). Presently, Ghana has ten state Polytechnics and one private polytechnic, eight public universities and 60 private ones (Dzakah & Akakpo, 2013) while there are 23 public technical and 29 vocational institutes with 474 public senior secondary schools (Anamuah-Mensah, 2004).

After independence in 1957, Nkrumah's government envisaged the urgent need for the intensification of the vocational and technical training for the manpower development of the country. In his address to the Legislative Assembly in March 5, 1957, Nkrumah pointed out that "Our whole educational system must be geared to producing a scientifically-technically minded people. Because of the limitations placed on us, we have to produce, of necessity, a higher standard of technical education than is necessary in many of the most advanced countries of the Western world ... I believe that one of the most important services which Ghana can perform for Africa is to devise a system of education based at its university level on concrete studies of the problems of the tropical world." (McWilliam & Kwamena-Poh, 1975 as cited in Acheampong 2010, p.3) His overthrow in 1966 somewhat blurred the nation's vision for education.

In 1967, the Kwapong reform committee recommended "10 years elementary education with a break in year eight for selecting suitable candidates for secondary education". "Those who were not selected went on to complete two years continuation classes with an emphasis on pre-vocational education." (Acheampong 2010, p.4) This unfortunate move marked the genesis of the stigmatization of vocational and technical education as it was branded a field for learners who could not perform academically or who were not academically inclined to fit into formal secondary education. The orientation of Technical Vocational Education and Training in the 21st century requires that all people are equipped with critical thinking and problem solving skills for relevant career development and lifelong learning (Boateng, 2012). Major educational reforms have taken place in an attempt to better Ghana's educational system and place premium on TVET but the erroneous perception seems indelible.

Many scholars have observed the negativism with which many in most African countries including Ghana perceive TVET. The 2011 COTVET (Council for Technical and Vocational Education and Training) report confirms public perceptions that TVET programmes are patronized by people who have low intellectual ability and in most cases by school dropouts and or illiterates. Students who pursue such programmes are seen as learners with low intelligence to learn the so-called prestigious academic subjects. These negative perceptions have made detrimental inroads into Ghana's second cycle institutions, amongst the general public and even in tertiary institutions that are mandated to train learners in TVET programmes. Ironically, the negative perceptions are from within the intellectuals who are better positioned to demystify the situation.

Since 1980s most African countries realized the need to promote TVET in their countries. Apparently, this realization has arisen due to the chronic graduate unemployment problem that has become endemic across the continent due to over emphasis on purely academic education. Ghana

has initiated many programmes to promote TVET education since 1987. For instance, the integration of technical drawing, technical skills, and pre-vocational subjects such as sewing, food and nutrition, graphic design, picture making, beadmaking, leatherworks, and others in her basic school curricula. In 1992 the Government of Ghana introduced the concept of community day co-educational secondary technical schools popularly known as ‘Sectech’ across all districts. The main objective of the Secondary Technical School programme was to train basic school leavers in Home Economics (Sewing and Foods and Nutrition), Technical (Metalwork, Applied Electricity, Building and Construction and Woodwork), Agricultural Science and Visual Arts (Graphic Design, Textiles, Leatherworks, Jewelry, Picture making, Ceramics and Sculpture) (Education Reform, 1987). These programmes were introduced to complement the training offered by the traditional technical institutes and vocational schools.

Higher National certificate (HNC) programmes in some technical, vocational and business areas were also introduced in some public polytechnics which were later changed to Higher National Diploma (HND) before the first batch graduated in 1995. The government subsequently, upgraded technical schools in the regional capitals to polytechnic status to run career oriented HND programmes. The introduction of the HND programmes broke the monopoly enjoyed by some state universities over certain technical and vocational programmes and this has increased the training of middle-level technical, vocational and administrative manpower to feed the industries and companies. Again, in 2002, Anamuah-Mensah Educational Reform Review Committee recommended amongst others a paradigm shift to Science and TVET, formalising apprenticeship competency-based training that links with the world of work. The Government white paper on the report introduced reforms in technical and vocational education from basic to tertiary education. A new compulsory vocational subject called Creative Arts was included in the primary school curriculum. The pre-vocational syllabus in the Junior High School curriculum was redesigned to create an integrated syllabus called Basic Design and Technology (BDT). Senior High School (SHS) technical, home economics and visual arts syllabi were also updated. Technical and vocational schools curricular were re-structured to include compulsory academic subjects such as general mathematics, science, English language, social studies and technical drawing and State Polytechnics were given accreditation to run Bachelor of Technology degree programmes (GOG, 2004).

With respect to management of TVET in Ghana, Council for Technical and Vocational Education and Training (COTVET) was established under the Ministry of Youth and Sports in 2006 by act 719 of parliament. The mandate of the council was to coordinate and oversee all aspects of technical and vocational education and training (TVET) in Ghana (GOG, 2004; Baffour-Awuah & Thompson, 2011). The major objectives of the council was to formulate policies for skills and technology development across the broad spectrum of pre-tertiary and tertiary education, formal, informal and non-formal sectors constituting key economic sectors (Skills Advocate, 2014).

Successive governments after Nkrumah have made efforts to improve patronage and quality of TVET in Ghana. At the moment COTVET is piloting a competency-based TVET curriculum in some public Polytechnics and Technical institutes such as Takoradi polytechnic, Accra College of

Technology and others. Government has also stepped-up financial support for TVET through the establishment of Skills Development Fund (SDF) managed by COTVET. Despite the good intentions behind these policies most of the programmes have not been fully implemented without challenges. The Anamuah-Mensah Education Review Committee for example proposed the establishment of National Apprenticeship Skills Training programme to train Junior High School graduates who could not progress to senior high technical or vocational schools in different vocations. However, this programme has not been fully implemented. Indisputably, TVET training and acquisition of skills whether in formal or informal sectors “has very little Government support as compared to the regular education system. Usually support is limited to some initial investment in buildings and equipment, and teachers [teachers’] salaries.” (UNESCO, 2003) According to Baffour-Awuah and Thompson (2011) hitherto TVET receives less than 1% of the Government of Ghana budget.

It would suffice to interrogate the type of colonial TVET system bequeathed to Ghana, their objectives and philosophy. Training models of TVET followed those of the colonial power in Ghana (African Union, 2007). Upon thorough assessment of TVET in Africa, it could be concluded that TVET in Africa during colonial times could be categorized into two segments: technical education and vocational education for the purposes of this paper. According to Marfo (2014) technical education teaches the science behind the occupation while vocational education focuses on hands-on application of skills needed to do the job. Apparently, this dichotomy has characterized TVET in Africa from the colonial era till now. In Ghana for instance, the British City and Guilds curriculum for technical education was introduced in the Gold Coast hook, line and sinker in 1922 and it remained so until recently when it was reviewed. Initially, the major objective of the curricula was to equip the Gold Coasters with craft skills in various vocations such as carpentry and joinery, block-laying and concreting, automobile engineering, electrical installation, plumbing, painting and decorating. The structure of the technical curriculum consisted of 60% practical and 40% theory. The theory component was based on selected topics from general mathematics, science and engineering which are applicable in specific vocations (City and Guilds syllabus, 1956). From the 1950s, an updated form of the curricula namely General Course in Construction (GCC), General Engineering (GE), Advanced Craft, Technician Part I, Part II, Part III, and Ordinary Technician Diploma (OTD) in various vocations were introduced to train master craftsmen and technicians who were employed as trades foremen and general supervisors in industry.

The vocational curriculum on the other hand was replicated from Germany and Canada and had different structure and orientation from the technical education curriculum. What is lacking in Ghana is the neglect of the German dual system that allows for concurrent training in a vocational school and in an enterprise. It consisted of 80% practical and 20% theory component and this limited the graduates to first-line positions in industry. The curriculum of the agricultural colleges was also focused on animal husbandry, crop production, fish culture, agric mechanization, among others. Trainees in these areas were employed as extension officers and technical officers in the agricultural sector.

It is worthy of note that TVET curricula run concurrently with the general grammar education popularly called O' level and A' level. The aim of the grammar education system was to provide a broad based general academic education to students who could progress to pursue higher academic programmes such as medicine, law pharmacy, engineering, architecture, administration, accounting and others in universities.

TVET STIGMA IN GHANA

Subjecting the three distinct curricula to comparative analysis reveals that while the general academic education developed the cognitive and affective domains of students, the technical and vocational systems developed the cognitive, affective and psychomotor skills of the students. The general education was made the only requirement to diploma and degree programmes in universities but all the technical and vocational graduates could progress up to the advanced craft or technician part III level in the polytechnic with the exception of OTD graduates who could offer diploma in mechanical, electrical or civil engineering at Kwame Nkrumah University of Science and Technology. In industry the placement of Technical and vocational graduates was limited to artisans, foremen and supervisors who always worked as subordinates to their colleagues who had general academic education and progressed to the university to pursue diploma and degree programmes. The conditions of service in industry with respect to remuneration, progression, incentives and others were skewed to favour the senior staff who had university education (Agyarkoh, 2013).

These comparisons reveal obvious parallelism, social and academic classifications that have been created by the three dominant formal education systems (Technical, vocational and general education) in African countries over the years. The limitations of TVET systems in African societies have created a perception that TVET is second fiddle to general academic education. This is because graduates from grammar education are employed in white colour jobs while TVET education leads to blue-colour jobs which are less prestigious (Maiga, 2013).

One serious ramification of the stigma on TVET in Ghana and other African countries is that many parents and guardians discourage and prevent their wards from pursuing TVET programmes due to its limited academic opportunities in academic progression and lack of prestige that have characterized TVET on the continent over the years. This situation has affected the enrolment of students into the TVET programmes in many African countries. A survey conducted by Artwatch Ghana in secondary technical schools and technical institutes in the central region of Ghana in 2013, revealed continuous decline of enrolment into technical programmes especially, Carpentry and joinery, Block-laying and concreting, Furniture design, Welding and fabrication, Draftsmanship, Painting and decorating, Visual arts and others.

A comparison of students' enrolment into TVET programmes in Europe and Africa reveal an extremely low patronage of TVET in Africa. According to African Centre for Economic Transformation (ACET) in 2009 Germany had 53.2% in TVET colleges; Finland had 55.1%, Ireland 33.9%, and South Korea 24.4%. In Africa, Angola had 72.19%, Burkina Faso 20.9%,

Cameroon 22.4%, Ethiopia 59.5%, Ghana 13.2%, Kenya had 1.0% and South Africa 9.7% (Maiga, 2013).

Analysis of the above statistics reveals that even though there is low enrolment of college students in TVET in most African countries, some African countries have higher enrolment than some developed countries used for the study. If Angola and Ethiopia have higher enrolment in TVE than Germany, Finland, Ireland, and South Korea, then their level of economic and technological development must be close to or surpass those of the European and Asian countries referred to above. Incidentally, this is not so. This necessitates the need to identify what could have happened in the case of Africa. “Vocationalization” of education has succeeded in many developed countries as a result of its weighting mostly in economic terms unlike the case in Ghana and other African countries whose primary goal for the introduction of vocational education has always been the “development of socially appropriate character, as a means of halting social problems such as urban migration and unemployment” (Yamada, 2005, p.71). However, technical and vocational education is the basis of the success stories of most buoyant economies in the world.

Another apparent effect of the negative public perception towards TVET in Ghana is the failure of technical-oriented tertiary institutions to lead in industrialization. In reality, much of the future depends on technical-oriented tertiary institutions if there is any expectation of complete take off to serious industrial development. But blaming these TVET oriented institutions alone for the nation’s failed industrialization would be unfair. A general drawback in these training institutions is traceable to factors such as teaching facilities including equipment, studios and lecture halls. Appropriate teaching facilities have remained grossly inadequate in the practical training of students. The inadequacy of the facilities reflects in the scenario where training sessions are undertaken without the expedient practical activities that may be necessary to bring out the best of students’ talents. Most of the few tools and equipment are obsolete and outdated (Dzigbede, 2009; Netherlands Organization for International Cooperation in Higher Education, 2010; Dasmani, 2011). Duku (2012, p.32) has noted that “studios designed for ten students now accommodate over fifty students; Lecturer-student ratio is beyond the National Accreditation Board prescription of 1:15; [and] lack of studio tools and equipment”. Meanwhile, numerous complaints by students have not been heeded to. A cursory look at some of the TVET departments in Takoradi polytechnic (T-Poly), University of Education, Winneba (UEW) and College of Art in Kwame Nkrumah University of Science and Technology (KNUST) confirms the logistical challenges of the school-based TVET institutions as in **Table 1**.

Even with the limited resources in these institutions, they continue to produce works with high aesthetic dimensions that are found in public places in the country. For example, the ‘Cedi Fountain’ found at the entrance of the Ghana’s Ministry of Finance and Economic Planning, Accra, and the fourteen processionally arranged horn blowers at Kwame Nkrumah Memorial Park, were produced from the Department of Art Education, in the University of Education, Winneba. Most of the nation’s current outstanding sculptors and painters were trained from KNUST. Annual exhibits of Art and Engineering students in the Takoradi polytechnic are living testimonies of students’ proficiency in what they are taught even with the few resources. Students’ contributions

and inventions are watered down by nation's cold attitude of not providing all necessary facilities in order to fully reap the required expectation of the Technical Vocational Education.

Globally, technical and vocational related universities and polytechnics have the responsibility of "training and development of artistic workforce with imaginative scope, intellectual rigor and inventive skills to produce the needs of the country." (Essel, 2013b, p. 5) For instance, China currently leads in the manufacturing of everyday useful functional objects and machinery. Their products have flooded the world market and contributing immensely to their economy. It is this same idea of technical and vocational education that positioned them there. A principal question lingering over the neck of many concerned Ghanaian citizens is that "Why is Ghana swimming in abject poverty despite her bountiful natural resources including gold, diamond, oil, bauxite, manganese, timber, cocoa, feldspar, ore and clays?" For over five decades of technical and vocational oriented education in polytechnics and universities the nation cannot tap her own minerals and other natural resource by herself and still import almost every functional and decorative needs. Statistically, "between 2012 and 2013 Ghana lost \$1.3 billion in export revenues on account of the decline in cocoa and gold prices. At the same time our import bill rose dramatically to \$17 billion. Can we, as a nation, continue this unbridled importation of everything from plastic dolls to toothpicks? Must we continue to rely on a narrow band of raw material exports? Were we born to be a nation of only shopkeepers and traders?" (Mahama, 2013, p. 12) Consequently, the phenomenon has nurtured a negative perception (Netherlands Organization for International Cooperation in Higher Education, 2010) and apathetic branding that TVET in universities and polytechnics in Ghana are bookish and dwell on playing name game of courses. Many still think that Ghana is left behind in the modern race of training progressive and inventive artists and technical experts.

TABLE 1: LOGISTICS CHALLENGES IN SOME POLYTECHNICS AND UNIVERSITIES IN GHANA

NAME OF INSTITUTION	DEPARTMENT /SECTION	WORKING FACILITIES TOOLS & EQUIPMENT
UEW	<i>Sculpture Section</i>	no foundry, modeling stands, turntables, thrones; limited working space; 1 welding machine; no power tools for carving, modeling and casting.
	<i>Ceramics Section</i>	no pug mill, blunger, electric kiln, ball mill, extruder, crusher, test kilns, balance scale; 10 potters' wheel;
KNUST	<i>Textiles Department</i>	obsolete power looms; broadlooms, and Nsadia Kofi loom
	<i>Sculpture Section</i>	no foundry, thrones, power tools for carving and modeling and casting; 2 modeling stands, 6 turntables; 1 welding machine; limited working space (students work under trees).
T-POLY	<i>Textiles Department</i>	<p>Printing Section: No modern printing gadget, automatic screen developer; 3 printing tables, 2 light exposure box, set of squeegees.</p> <p>Dyeing Section: 1 gas burner; 2 wax melting pots; 2 stamping tables; 5 basins for dyeing; 1 improvised dyeing machine;</p> <p>Weaving Section: 2 Nsadia Kofi looms; 3 broadlooms and accessories; No power looms.</p>
	<i>Ceramics Section</i>	4 obsolete manual potters' wheel; 5 powered potters' wheel; 3 sizeable gas kilns; 1 firewood kiln; 1 pug mill; 6 blunger; 4 basins

DE-STIGMATIZING TVET

First and foremost, the nature of the current TVET syllabi at all levels need re-examination. In respect of TVET in senior high school and tertiary institutions, this paper recommends that the curriculum of technical institutes and vocational schools redesigned to create a common curriculum which will break the dichotomy and parallelism that have existed between the two systems for decades. This common curriculum will merge the national objectives and philosophies of the two systems that will create equal opportunities for the graduates in industry and for academic progression. The duration for this hybrid curriculum must be four years with classroom and industrial attachment components. In this curriculum, integrated mathematics syllabus consisting of few core mathematics and more applied mathematics topics must be developed. The integrated science syllabus must also constitute more physics and chemistry topics. The current syllabi for the various vocations must be updated to meet modern industrial trends.

Also, art syllabus consisting of subjects on creativity, aesthetic and appreciation, criticism, drawing and painting and idea development must also be integrated into the curriculum. The curriculum must be designed for four-year duration since the students will need more time to assimilate the academic content as well as acquire the practical skills they would need to function effectively in industry. These highly practical and academic curricula would help technical and vocational school graduates to gain direct admission to universities which the current system has failed to achieve. The inclusion of visual art subjects will help them to develop skills in observation, visual measurement, analysis, and communication. It will also equip the students with skills in composition, object manipulation, aesthetics and creativity. Also the SHS technical programme must be integrated with basic design, drawing and painting, and idea development.

Our universities and polytechnics must also re-direct the philosophy of their curricula for TVET and review their curricula to reflect modern industrial technologies. NABPTEX (National Board for Professional and Technician Examinations) and COTVET must impress upon technical and visual arts schools, faculties and departments in our polytechnics and universities to revise their curricula to reflect contemporary global industrial trends. New programmes such as product design, animation, interior decoration, multimedia design, aircraft, automobile and ship design, structural and industrial painting, medical engineering and others must be developed and introduced at both the secondary and tertiary levels. Curriculum developers must wake up to the fact that it is these artistic skills that are used to complement technical, scientific and mathematical knowledge by great inventors to create objects such as aircrafts, ships, cars, buildings and others. If such curricula are developed and implemented effectively and efficiently at all levels of our TVET, Ghana will be able to train creative and innovative inventors, engineers, designers, technicians and artisans who can propel rapid technological development.

One of the major actions to de-stigmatize technical and vocational education in polytechnics and universities is to link studies to industries in bridging the gap between the two. Manufacturing centres for the respective courses should be established and linked to these schools. For instance, with the abundance of clays in every district and region in Ghana student-ceramists must be taught to produce modern water closets, high quality tiles, ceramic bowls and plates and decorative wares

for use by society and exportation purposes. In today's world, almost every modern house needs these accessories for survival. With over five decades of studies in Ceramics, if the nation dwells on the importation of these basic home facilities, then education in this subject area is deficient. Textiles studies in the Ghanaian soil has been reduced to basic fabric decoration (tie-dye, batik, printing, applique) and weaving on the broadloom and traditional loom (Nsadua Kofi) rendering the course less productive as intended. Almost all the TVET programmes in the Art and Engineering institutions experience similar curriculum setback. On paper, the curricula provide intensive practical-based training to learners to develop and produce the needs of the society but the situation on the ground is totally different.

In addition, the current technician I, II and III programmes run in our polytechnics must be replaced with a new two-year curriculum called Advanced Diploma that will combine all the three levels. This curriculum will train skilled general supervisors in the building, mechanical and electrical electronic industries and help reduce the duration of technician education in Ghana. Also, the current advanced craft programmes in various trades must be upgraded to a two-year Advanced Diploma programme which will train competent trades' foremen to industry.

Making distinctions between technical and vocational education is a display of non-progressive attitude. This is because there is a symbiotic relationship between the two which make them complementary to each other in industrial design and manufacture. On the international scene, China has taken an anchor decision to convert at least half of its public universities (600) into institutions of applied learning or polytechnics to produce more technically trained graduates (Sharma, 2014). This change in policy was necessitated by their burning desire to reduce to the barest minimum academic degrees graduate unemployment. Yet, Ghana, a country with substantial graduate unemployment situation to the extent that they have formed an association called Unemployed Graduates Association of Ghana (UGAG), has announced plans to convert state polytechnics to technical universities. Indeed, this is not a bad idea but should not be implemented until the quality of polytechnic education in Ghana is achieved. However, if government is burnt on its implementation by hook or crook then we suggest that the HND programme must be replaced with a two-year Ordinary National Diploma (OND) which would have a minimum credit hours of 60 and maximum credit hours of 90 that will be equivalent to the university undergraduate diploma in Ghana. The OND graduates must be placed at level 300 in the four-year Bachelor of Technology programme as post-diploma students. This system will help to correct the discrepancy and controversy that exist between the HND and Bachelor degree holders in industry which have created deep rooted job satisfaction and apathy among HND employees for almost two decades. With this learners who reject HND programmes due to lengthy progression and low recognition in industry would enroll in the new OND programmes.

The structure of the creative art and BDT syllabi are innovative and commendable, but its implementation is deficient. For instance, majority of the class teachers in primary schools did not study child art during their professional and academic training and therefore lack the knowledge and skills of nurturing the artistic talent of children to facilitate their holistic development. The display of ignorance by such teachers could suppress or kill the latent artistic talent and interest

some children might have. Also, non-professional teachers who do not have training in art sometimes do not teach the creative art subject in the syllabus in their class at all. We will therefore suggest that child art must be introduced as compulsory course in all colleges of education and education programmes offered in universities in Ghana. Also, the current pre-vocational subjects taught in Colleges of Education must be replaced with a new one that specifically covers the content of the creative art and BDT syllabi taught in basic schools. Primary school teachers who do not have background in art education must be given periodic in-service training in creative art and child art. Public basic schools must be provided with art and technical skills workshops that are well resourced with modern tools and equipment so as to improve teaching and learning.

With respect to management of TVET in Ghana, this paper suggests that the skills and apprenticeship programme proposed by the Anamuah-Mensah educational review committee be implemented. However, the apprenticeship training must be complemented with some theory lessons which would be provided by technical institutions so that an oral proficiency examination and practical test would be organized for them upon graduation. Sensing the urgent need, speed and quality in bettering TVET education so as to make it contribute significantly to the national economy as the president pointed out in the 2013 State of the Nation's Address, it should be closely monitored by a reliable committee to bring it under thorough scrutiny. If the nation will progress, quality TVET graduates would play a key role. Intensive national orientation to the youth to generate their interest in TVET entrepreneurial courses rather than pursuance of course that leads to over reliance of white-colour jobs must be embarked on by African governments.

If there are any incubation centres to be set up by government, then there should be some in these training institutions. Having given the necessary training to student-finalists, the institutions should encourage students to form product specific groups for research, design and production of demand-driven products for the market. For instance textiles students must be taught weaving of jute sacks to halt its importation by Ghana Cocoa Board; engineering students should manufacture powered looms for weaving of Kente for mass production. Student-engineers must design and produce some of Ghana's agricultural machinery such as cocoa harvesters that will harvest and cut open the pods, separate the cocoa pods from the beans and dry them by drawing out the moisture content in a day or less time. The groups should be well monitored and made accountable to their institutions of origin. This incubation centres should not be a wholesale affair for all students but those with inventive and productive practical ideas. Obviously, it will encourage students' inventions and create entrepreneurial graduates in TVET.

There must be annual national exhibitions of students' highly finished and marketable creations in all TVET courses offered in universities and polytechnics. Such a platform would be a breeding ground for selecting prospective products to be supported by the incubation centres. By so doing, the nation will be on the path of celebrating students' excellence towards nation building.

As indicated in the foregoing discussion, evidence of some efforts towards the workability of TVET in Ghana still exists in some of the technical institutions in spite of all the drawbacks and inhibitions transuded by the deficiencies in its implementation. It is obvious therefore that a successful implementation of any form of intervention would draw tremendously from the views, attitudes and perception of all stakeholders towards existing structures. This calls for a rigorous

reorientation of the psyche of the people towards TVET. Ghanaians need to find a way of developing some appetite for items produced by our trained artisans and cut down the insatiability in appetite for foreign products. The continuous excuses that locally produced items are inferior only betray our willingness to improve on our structures for national identity and economic gains. Besides, one major decision that can propel our determination towards the effective implementation and development of TVET in our institutions of learning would be our readiness to proudly embrace the outcome of the programme, and the zeal to make it better.

IMPLICATION TO RESEARCH AND PRACTICE

By implication, this paper is advocating for more pragmatic and goal-directed approaches towards the implementation of TVET in the Ghanaian educational system. It is the expectation of this paper that the high hopes in popular pronouncements on the promises of TVET as a viable academic pursuit, when appropriately translated into action, would contribute greatly to the attainment of educational goals in Ghana. Many researchers and scholars (Dzigbede, 2009; Duku, 2012; Dasmani, 2011) have identified some of the problems that render TVET programmes less productive in Africa. What this paper brings to the fore is that the stigmatization of TVET in Africa after the colonial rule was the brainchild of the African governments and intellectuals (including policy makers, curriculum developers and reviewers) who were supposed to place much emphasis on TVET instead of Grammar education. In the case of Ghana, the 1967 Kwabong reform committee recommendation about TVET and its implementation, after Nkrumah's overthrow, was the foremost governmental attempt that carved the national stigma for learners in this field as learners who are not academically sound. This negative perception was contributed by their apathy and lack of political will towards the development of the programme. Under this situation, Ghanaians' appetite for European goods escalated thereby making Ghana and other African countries with similar problems a viable market for their goods, a situation that rather rocket high unemployment situation in Africa and harsh economic conditions.

The study makes specific reference to the logistical challenges facing some of the departments in some of the TVET-related higher institutions of learning in Ghana to showcase the reality of the problem, and solicit for immediate logistical intervention. Besides, it is now known from this study that textiles studies has been reduced to basic manual fabric decoration (tie-dye, batik, printing, applique) and weaving on the broadloom and traditional loom (Nsadua Kofi) making the course less productive as it pertains in other developed countries. Besides, studies in Ceramics could not lead to the production of watercloset, polished wall tiles, local glazes, electrical insulators and so on. Training giving to student-finalists does not encourage entrepreneurial product specificity which could be highly finished for the Ghanaian and international market as a result of the funding, logistical and leadership limitations.

CONCLUSIONS

The stigma on TVET has long standing colonial and post-colonial antecedents. It stems from the many factors including the introduction of the Eurocentric formal school education to Africa's Ghana (then Gold Coast) that was skewed towards the humanities; prestigious reverence and

emoluments accorded academic graduates in comparison to graduates from TVET institutions since colonial era till now and Kwabong reform committee recommendation of pushing failures who could not proceed to academic secondary education to complete two years continuation classes in pre-vocational and technical education.

As a result of insufficient funding in acquiring needed state-of-the-art teaching and learning facilities, lack of accountable visionary leadership and curricula deficiencies, the study of TVET in universities and polytechnics in Ghana and other African countries has not met its expected outcomes. It fails to produce employable and or self-employable graduates. Graduates from these institutions do not meet the required skills standard for their absorption into industries. Besides, the majority graduates from these institutions with their eyes on employment from the government sector. This greatly adds to TVET stigmatization in developing countries. Even in the presence of the logistical challenge and leadership deficiencies there abounds substantial evidence of productive capabilities of these TVET tertiary institutions in a developing country like Ghana.

No matter the level of public education to demystify the stigmatization it will remain until the artificial backwards driven blockade are eradicated by providing the needed logistics, funding, offering enviable supervisory and accountable leadership in those tertiary training institutions by COTVET in Ghana and relevant bodies in the respective African countries. In the presence of these structures, these institutions will deliver to succour the continent in refining her bountiful natural resources for sustainable development. Through this, TVET will gain its recognition and acceptability on the continent and be embraced as the most formidable model for technological, economic and industrial development in Africa.

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