

Full Length Research Paper

Career challenges in construction craft training in technical vocational education and training in Ghana

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The study examined the challenges of the Pilot Training Centre (PTC) at the National Vocational Training Institute (NVTI) at Kokomlemle, a suburb of Accra in the training of tradesmen for the construction industry. A descriptive survey design was used for the study. The population consists of tutors, current students and past students of the PTC/NVTI and contractors within the Accra Metropolis. The sample comprised ten tutors, fifteen past students, one hundred and ten currents and ten contractors were randomly selected from the PTC and contractors. A set of questionnaire was prepared and used for collecting data for the study. The data were analyzed using the descriptive statistics from the Statistical Package for Social Scientist (SPSS 16 version). For many years, technical and vocational education in Africa has been considered as a career path for the less academically endowed. This perception has been fuelled by the low academic requirements for admission into TVET programmes and the limited prospects for further education and professional development. Worse of all, the impression is sometimes created by governments that the primary objective of the vocational education track is to keep dropouts from the basic and senior high school system off the streets, rather than project this type of training as an effective strategy to train skilled workers for the employment market. However, 84.3% of the respondents refuted the assertion and only 15.7% supported the assertion. Based on these findings on the career challenges TVET trainees face, it was recommended that training institutions should be well resourced by the collective efforts of government and all other stakeholders so that training programmes can achieve their set objectives. Training providers should liaise with those in the industry so that in-service training activities could be organized which would enrich students with the right skills for the job market. There should be a clear cut for technical students climbing the academic ladder without bottlenecks.

Key words: Technical Vocational Education and Training, career challenges, construction craft course, employability, negative perception.

INTRODUCTION

The importance of Technical Vocational Education and Training (TVET) in nation building cannot be over-

emphasized. Indeed technical vocational education is a major agent for industrial development as well as for

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social progress of any country. Without skilled technical manpower produced by technical and vocational institutes for industry, polytechnics, commerce and agriculture, national development would virtually grind to a standstill (Budu-Smith, 2005).

Osuola (1999) emphasized that the term either technical or vocational education has no single universally accepted definition but what is common in the various definitions is its goals and objectives that remain the same. Technical education has been defined as that phase of education which seeks to help the people, students and the populace acquire specific mechanical or manipulative skills required in industrial arts or applied science.

In Ghana, the case for education especially Technical Vocational Education and Training (TVET) is overwhelming both in terms of fulfilling human security and as an investment with very high returns due to her long history of technical and vocational education and training. According to Nsiah-Gyabaah (2009), there has never really been any argument over the link between education and development because education helps to build national capacity to apply science and technology to social and economic problems. Education is a fundamental human right and it is necessary for socio-economic development of society. It is a means to the fulfilment of an individual and transfer of values from one generation to the next.

Technical Vocational Education and Training is a fundamental element in the development equation because it allows individuals and societies to unlock their potentials, expand their horizons and adapt to the changes in the dynamic world (Nsiah-Gyabaah, 2009). Basically, the purpose of Technical Vocational Education and Training is to equip people with the technical and professional skills needed for socio-economic and industrial development of the country. The emphasis is on training people for self-employment.

Technical Vocational Education and Training (TVET) is usually equitably distributed across social classes, gender and ethnic groups. Only parts of this inequality can be directly addressed by public intervention. Much education takes place in private spheres both in the family (before young people enter public education and training programme) and at work places (Jay, 2002). Over the years, however, three different forms of TVET have evolved. These comprise the formal system, the non-formal system and the informal system.

The formal system includes primarily time-bound, institution-based, graded, and certified training. It is offered by institutions such as the NVTI (National Vocational Training Institute), Ghana Education Service (GES), youth training institutions and a variety of private vocational training schools.

Non-formal TVET typically has structured learning objectives, learning times and learning support but will normally not lead to certification. Workshops, short

courses and seminars are typical examples of non-formal learning.

The informal system includes a wide range of flexible programmes and processes by which individuals acquire skills and knowledge from designated training venues outside of the home and, in some cases, at home. Traditional apprenticeships make up the majority of the informal sector. Indeed, Ghana has a long tradition of informal apprenticeships, particularly in the following trades: Carpentry, Masonry, Auto-mechanics, Welding and fabrication, Foundry and casting, Photography, Tailoring, Dressmaking and beauty, Food processing and other agro-based industries, Shoe making and repair and Electrical wiring and repairs.

The informal sector is perceived to be characterised by a lack of co-ordination and standardisation. It is, however, where the majority of trainees throughout the developing world gain the skills required to make a livelihood, and therefore is an essential focus of any study looking at skills development (Adams, 2008). Recently, master crafts persons (the primary providers of informal apprenticeship training) have shown a greater interest in re-orienting training arrangements by introducing more systematic training modules, although the practice is mostly on a pilot basis in a limited number of trades.

There are a variety of challenges affecting the effectiveness of the TVET sector, both in Ghana and internationally, which are widely accepted. Some of the key challenges include career challenges, the mismatch between acquired skills and market needs, widespread concern about poor quality training and training environments, and negative public attitudes and perceptions regarding vocational education and training (Atchoarena and Delluc, 2001).

With the initiation of the new Council for Technical and Vocational Education and Training (COTVET) in Ghana, it is imperative to understand the nature of these attitudes and perceptions to be able to target effective interventions which will improve and promote the sector. COTVET was specifically established by the Government of Ghana through an Act of Parliament in 2006. The Act mandated COTVET to co-ordinate and oversee all aspects of technical and vocational education and training in the country. With this mandate, COTVET can develop interventions that improve TVET delivery, recognise the benefits of training and what the perceptions of the market worth of TVET-trained individuals are (COTVET, 2010, 2011).

In Ghana, the dominance of the central government and her role in shaping career and technical education programmes at all levels has resulted in a view of technical education that is predominantly theoretical in nature taking coherent or cohesive vision for all involved. Indeed another challenge is that our technical personnel at all levels do not appreciate the relevance and functionality of skilled technical work as a visible source of self-employment that generate sustainable financial

earnings. The need to continually update curriculum to meet changing work programmes and initiation of new ones that reflect emerging occupations, has reflections on funding and government mandate for initial direction (Okam, 2002). For an individual or student to enter a specific career, he or she needs some training programme to acquire the necessary skills for that job.

The main sector which offers skills training in Ghana is the Council for Technical Vocational Education and Training (COTVET). All TVET institutions in the country operate under COTVET. Programmes offered by these training institutions are centred on applied practical skills in contrast to the general education which is centred on theory and knowledge. The TVET institutions offer varied craft courses ranging from building construction craft, welding and fabrication craft, carpentry and joinery, electrical installation, catering craft, etc. These craft courses equip the needed manpower for the national socio-economic development and industrialization.

Despite the contributions these training institutions offer towards the economy, the construction industry is still struggling to find its feet. These days many construction projects do not last the lifespan it's supposed to. Many of our roads networks get to a deplorable state in a short time. One time Upper West Regional Minister Mr. George Hikah Benson, lamented that the deplorable conditions of roads within the region had been a worry to the chiefs and people of the region, (myjoyonline.com)

It is worth noting that many contractors and some of their employees are graduates of TVET who are presumed to have the necessary competencies required for the construction industry. Yet the lapses that do occur in the field of construction have become a major concern to society and this has informed this study which seeks to address career challenges in construction craft training in TVET.

Statement of the problem

Career challenges in the construction craft training affect other programmes offered at the various TVET centres in this country. Historically, the introduction of Technical/Vocational Education was by the early missionaries and the colonial masters. The programme was laudable in terms of its developmental benefits; there were minor problems which have grown with it till this 21st Century. Some of the problems are that people who enrolled into the technical education system are not respected and are employed at the low level or middle level work force (Annor, 1999).

In recent times a lot of employers engage the services of trainees from the informal sector instead of the trainees from the TVET sector, with the general perception that products of the informal sector perform better than the TVET products under the same working conditions. It is therefore imperative to assess the career

challenges in the construction craft training in TVET in order to improve upon the quality of training and the competencies of its graduates in the construction industry.

It is becoming obvious that society prefers the services of trainees from the informal sector, especially when it comes to construction works, to that of the formal sector-TVET (Ayinga, 2011). This study is therefore to ascertain the career challenges of the construction craft training in TVET institutions in order to curtail societal perceptions.

In view of the issues identified, the study seeks to assess the factors that influence the low patronage of technical education in Ghana, attitude of students, parents and society towards technical education in Ghana, identify a model for efficient underpinning of the challenges facing the construction craft training in technical/vocational institutes in Ghana and the construction craft course and the progression of the construction industry in Ghana

CONCEPTUAL AND THEORETICAL FRAMEWORK

Ghana's workforce has grown rapidly since its independence in 1957; formal employment has failed to grow at the same rate, resulting in significant levels of unemployment and underemployment (ILO, 2003). Ghana has placed technical and vocational education and training (TVET) at the centre of its policies to help solve employment problems and to reduce poverty (King and Palmer, 2007). Its Government recognizes, however, that the country's training system is not yet producing employable graduates with the right skills (Ministry of Education, Science and Sports, 2008).

Key challenges facing TVET in Africa include the need to improve perceptions of vocational education and training; to improve the training of instructors; to develop links between vocational and general education, which currently often operate in parallel, and between formal and non-formal training programmes; to reduce gender stereotyping in courses such as hairdressing; to develop traditional (indigenous), management and entrepreneurial training; and to work towards mutual recognition of qualifications across the continent (African Union, 2007). Capacity is another significant challenge. The combined training capacity of public and private TVET institutions in Ghana is estimated at around 12% of the annual number of labour market entrants (calculated from figures used by Botchie and Ahadzic, 2004). TVET completion rates are low, which may be linked to course duration. Technical institutes and national vocational institutes run courses of between three and five years; many learners leave after two years, believing that their employability will not be significantly improved in the remainder of the course (Atchoarena and Delluc, 2001).

Wage returns from TVET in Ghana are similar to those from senior secondary education (World Bank, 2009). It is

notable that apprenticeships generate minimal wage returns (*ibid.*); this may relate to apprenticeships' pathways into informal sector employment, however, rather than an intrinsic lack of financial return attached to undertaking an apprenticeship (Monk et al., 2008). Workers in the informal sector receive, on average, lower wages than formal sector workers (*ibid.*). Formal employment in Ghana's urban areas, for example, brings a wage premium of around 20% when compared to other forms of employment (World Bank, *op. cit.*).

Employment rates of TVET graduates in Ghana are low, leading to suggest that TVET has been too supply-driven and focuses on training which has a low market demand Akyeampong (2010). Reasons for a lack of TVET relevance may include incorrect assumptions about the labour market or an inadequate needs assessment, lack of links between training providers and business, out-dated curricula and equipment, inability or unwillingness of training providers to adapt to change, and the delivery of training for the wrong reasons.

Mureithi (2009) points out that training by itself does not create jobs; skills must be applicable and economic conditions supportive. Such economic conditions might include the availability of seed funding for those who have completed entrepreneurship training (*ibid.*). Palmer (2005) questions the entire premise of the TVET agenda in Ghana, stating that a link between training and self-employment creation has never been established: 'More research based evidence is required that examines the relationships between skills development for poverty reduction and growth, particularly with respect to the informal economy.' (2007, p. 22)

Poor links between TVET institutions and business mean that TVET programmes often fail to meet labour market needs. Young people working within the informal economy tend to have multiple jobs, rather than the single profession at which TVET programmes are often aimed, and little is available in the way of post-training support (Palmer, 2005). A recent analysis of skills supply and demand found that the breadth and range of courses on offer are generally appropriate (with the exception of ICT and oil sector training, for which insufficient programmes are available), but the actual content of training programmes does not meet the needs of the workplace (Gondwe and Walenkamp, 2011). Anamuah-Mensah (2004) suggests that the supply demand challenge faced by Ghana could be improved by the establishment of a national labour market forecasting unit, labour market monitoring by training institutions and improved links between training providers, employers and trades unions.

Unequal access to educational opportunities is a fundamental policy challenge for Ghana: women, for example, have lower access to training which is compounded by low literacy rates, family responsibilities, limited female autonomy, gender stereotypes within educational curricula and a lack of awareness about training opportunities

(Botchie and Ahadzie, *op. cit.*). The Ministry of Education aims to secure 50% female enrolment in TVET by 2015 (Ministry of Education, 2010b). Inequity is observable in educational choices. Apprentices, for example, tend to come from a poor background and have little formal education; this is later compounded by a lack of progression routes into formal sector employment (Monk et al, *op. cit.*). The rural-urban divide is also integral to discussions on equity. Ensuring that training in rural areas meets the needs of local communities can help to mitigate rural-urban migration, which currently causes high levels of unemployment in cities (Mureithi, *op. cit.*).

According to the African Union (*op. cit.*), the number of private TVET providers is increasing across Africa. This, the Union believes, is attributable to the focus of private providers on the growing informal sector, and public providers' focus on the 'stagnant' industrial sector (2007, p. 7). The capacity of the TVET system to meet skill needs in the informal sector remains limited, however, which has constrained job growth and restricted quality (Mureithi, *op. cit.*).

TVET strategies need to be considered in the context of the importance of the informal economy in Ghana. A successful skills development strategy can only work if an 'innovative pro-poor, and gender aware' informal economy strategy is in place (Palmer, 2005, p. 20). While many countries have been criticized for their failure to consider the informal sector in their skills development plans, the Ghanaian Government's intention to increase informal sector workers' skills, particularly in the context of the traditional apprenticeship system, represents a notable exception (King and Palmer, *op. cit.*).

The historical context

Education is a means of transmitting ones culture from one generation to another. It is a process of bringing about a relatively permanent change in human behaviours (Adeyemi and Adeyinka, 2002:1-2). As one of the oldest industries in human history, education is therefore the main instrument employed by the society to preserve, maintain and grapple with its social equilibrium; hence a society's future depends largely on the quality of its citizen's education.

It could be therefore asserted that educational system existed in African society prior to the European invasion of the continent. Therefore, Mara (2006) opines that African traditional education aimed at inducting the members of the society into activities and mode of thought that conduced to norms and values of the society. Mara further maintains that African societies were noted for her cultural heritage which was preserved and transmitted from generation to generation through a system of traditional education (1-2). Accordingly, the process of education in African traditional society was intimately ingrained in the social, cultural, artistic, religious

and recreational life of the community.

The African traditional education curriculum, though not documented, was quite elaborate, embracing all aspects of human development. The contents of the curriculum include: mental broadening, physical fitness, moral uprightness, religious deference, good social adjustment and interaction. Basil (1969) and Mara (2006) maintain that both children and adolescents took part in such activities as wrestling, dancing, drumming and acrobatic display (15-17). In traditional African societies, the main emphasis of education was on 'mastery-learning' (Ociti, 1973:16). In this direction, individual training incorporated of various social values as honesty, respect for other people property and right and the dignity of labour. Hard work and productivity, self-reliance and collective orientation towards the maintenance of social values and social order, were however at the epi-centre of African traditional education.

In respect to vocation, children were taught farming, fishing, weaving, cooking, hunting, knitting, building of houses, mat making and forging of local farm implements. The main focus of African vocational education was the preparation of African child for his/her responsibilities in the community (Scanlon, 1964:3). In his own contribution, Warkins (1945) describes the African educational institute as 'the bush school' (666-675). The reason for the description was that before initiation into the adult life, most African communities take the neophytes outside their community of social comfort to seclusion, often in the bush areas of the community. Commenting on this special institution, Block (1973) writes: The training given to the youths prepared them for military, family, agricultural and cultural progress...the length of training of the boys differ from those of the girls, but usually takes several years before a boy is passed from adolescence into adulthood...and failure was virtually nonexistent, every effort was made, encouragement given, incentive provided to make sure that even the most coward goes through, say the circumcision process (30-36).

Basil (1969) provides another dimension to understanding the African traditional educational institution, as he writes, 'one of the major avenues through which African youth received his or her education was and still today is in some quarters, during several grades or initiation ceremonies (81-85). He gives an apt description of the rite among the Tiriki community in Kenya, East Africa thus:

Until you are ten or so, you are counted as a small boy with minimal social duties, such as herding cattle. Then you will expect with some trepidation to undergo initiation to manhood by a process of schooling, which lasts about six months and punctuated by ritual examinations. Selected group of boys are entered for this schooling once every four or five years...All the initiates of a hut eat, sleep, sing dance bathe, do some handicraft etc...

but only when commanded to do so by their counselor, who will be a man under twenty five...circumcision gives it's ritual embodiment within the first month or so, after which social training continues as before until schooling period was completed, then comes ceremonies at which elders teach and exhort, the accent now being on obedience to rules which have been learned. The Tiriki social charter is thus explained and then enshrined at the centre of man's life (81- 85).

Education was placed at the centre of Ghana's economic and social development policies following its independence in 1957 and the 1961 Education Act (Akyeampong, 2010). Technical education, through the development of technical schools and polytechnics, was a key element of Ghana's education plans. Rapid expansion of the education system, however, was later criticized for compromising on quality (ibid.). In 1967, continuation schools were established for learners who were not selected for secondary education. Continuation schools emphasized pre-vocational education; this contributed to the erosion of TVET's credibility, as it was viewed as a route for those who had failed to progress to academic education (ibid.).

The National Vocational Training Institute was established in 1970 to provide national co-ordination of TVET (Preddey, 2005). Its remit included apprenticeships, standards and certification, and labour market monitoring (ibid.). It also set up a network of training centres which remain in place today. The economic crisis of the 1980s led to reduced levels of public sector employment, increased unemployment and a reduced rate of return to post-basic education (Atchoarena and Delluc, op. cit.). It also led to protracted problems for Ghana's education system, including shortages in textbooks and instructional materials, as well as teaching staff (Akyeampong, op. cit.). Reforms in 1987 saw the combination of primary and junior secondary education into 'basic education', and senior secondary education reduced to three years. Curriculum reforms aimed to ensure that all primary school leavers had access to secondary education, and to prepare learners who left the formal education system for paid work or self-employment (Akyeampong, 2002, 2010).

These curriculum reforms included a greater focus on TVET, but 'failed to recognise that the kind of macro-economic conditions needed to motivate demand for practical subjects was lacking in what was a poor-performing economy' (Akyeampong, 2010, p. 6). Less time was available in the curriculum for the development of the literacy and numeracy skills necessary for more advanced technical and vocational understanding (Atchoarena and Delluc, op. cit.).

Furthermore, although vocational programmes in schools were intended to offer vocational orientation to learners within a school-based setting, delivery conflicted with policy objectives: 13 specialized vocational subjects were offered, rather than a more general vocational

curriculum (Akyeampong, 2002), and teachers failed to implement the proposed integrated approaches (Osei, 2004).

The National Council for Technical and Vocational Education and Training was established in 1990 to co-ordinate the activities of public and private training providers (Atchoarena & Delluc, op. cit.). The World Bank's Vocational Skills and Informal Sector Support Project (VSP) ran between 1995 and 2000 (King and Palmer, op. cit.). It aimed to shift training from a supply-driven perspective to a demand driven one, to respond to short-term training needs within the informal sector (Haan, 2001) and to upgrade the skills of both master craftspersons and traditional apprentices (King and Palmer, op. cit.). It trained almost 15,000 apprentices and over 9,000 master craftspersons. The World Bank rated VSP as unsatisfactory, however, due to poor linkages between the institutions involved, a failure to upgrade and adapt technology, inaccessibility, inferior equipment and limited coverage (ibid.).

In 2004, the Government of Ghana published a white paper on education reform. The paper suggested that the 1987 reforms had led to 'immature' learners between the ages of 12 and 15 who were unable to absorb vocational skills, and vast numbers of 'unskilled, unemployable' young Ghanaians entering the labour market at the age of 15 (Government of Ghana, 2004, p. 2). The white paper saw an ambition to develop TVET as a 'credible alternative' to general education (2004, p. 8) and stated that a particular focus would be given to training TVET teachers. It also announced the formation of a National Apprentice Training Board to oversee the largely unregulated traditional apprenticeship sector (ibid.).

An accompanying TVET policy framework aimed to improve the links between formal and informal training systems, and to support trade associations to assist their members to deliver training (Palmer, 2005). Palmer (ibid.) has highlighted possible challenges in formalizing the informal sector, including the potential to undermine its sustainability as well as possible implementation difficulties. Education reforms in 2007, the result of the 2004 white paper, aimed to streamline general, vocational, technical and agricultural education through improvements in the quality and nature of compulsory subjects (Gondwe and Walenkamp, op. cit.). Core subjects are English language, mathematics, integrated science, social studies and ICT; elective subjects are agriculture, business, technical education, vocational education and general education (arts or science) (UNESCO, 2010).

The Council for Technical and Vocational Education and Training (COTVET) was established in 2006 (OECD, 2008). It formulates skills development policies and is developing the TVET system to 'improve the productivity and competitiveness of the skilled workforce and raise the income generating capacities of people, especially women and low income groups, through provision of quality-oriented, industry-focused and competency-based

training programmes and complementary services'.² One of COTVET's principal challenges is to co-ordinate the work of the Ministry of Education and the Ministry of Manpower, Youth and Employment (Ministry of Education, 2009). It is in charge of implementing a National Apprenticeship Programme, which Gondwe and Walenkamp (op. cit.) suggest will reduce the youth unemployment rate by increasing on-the-job training and preparing learners for self-employment.

The Ghana Youth Job Corps Programme was also established in 2006 after a merger of the former Skills Training and Employment Programme, which offered vocational training and microcredit through the delivery of apprenticeships to unemployed young people, and the National Youth Fund (OECD, op. cit.). This was followed in 2007 by the establishment of the National Accreditation Board, which regulates content and standards of tertiary education programmes and accredits both public and private institutions (UNESCO, op. cit.). The OECD has criticized the proliferation of organizations and initiatives in the Ghanaian TVET sector, suggesting that uncoordinated programmes have led to 'duplicated efforts and wasted resources' (2008, p. 341).

Teacher shortages in TVET, combined with a lack of learning resources necessary to deliver a practical curriculum, have led to reductions in the quality of provision and reduced learner interest (Akyeampong, 2010). Learners increasingly see academic subjects as offering better opportunities than TVET subjects (ibid.). Government's efforts to change the current labour market structure and associated skill levels are likely to prove challenging; not only is TVET suffering from declining learner interest, but low levels of schooling and high areas of land per worker have combined to form an 'excessive dependence of the country on primary and extractive activities and therefore a reduction of the comparative advantage in manufacturing activities that are skill intensive' (Botchie and Ahadzie, 2004, p. 9).

TVET in Ghana

The key strategic documents driving economic growth and social development uniformly identify human capital development as a cornerstone of the country's aspiration to reach middle-income status (GoG, 2003a, 2005a; NDPC, 2008). Within the general objective of human capital development, education has played a key role almost since independence. Although there have been variations in education policy directions and in financing, the sustained commitment to the sector has brought about impressive results and strong contribution to growth and poverty reduction.

Over the decade to 2010, a new social consensus emerged in Ghana proposing that the long-term national strategy needs to go beyond education attainment and needs to focus increasingly on other aspects of human

capital development including skills, creation and adaptation of technologies and what is increasingly addressed as “innovation systems”.²

Adequate level and range of skills in a country can contribute to three core drivers of sustained growth: productivity, diversification and employment. Skills also have cumulative impact on other factors of production including land, capital, labor, technology. In regions where natural resources are scarce or even if such resources are abundant but Dutch disease is to be avoided, skills may be the most critical option to rely on to diversify the economy and boost domestic markets. With other factors constant, employment is unambiguously linked with manifested or certified skills of those aspiring to find employment.

What skills are necessary to improve upon productivity, employment or economic diversification? A more in-depth scale and scope of skills necessary for the local or national economies, beyond this general recognition of the importance, is more difficult to do. The necessary skills include general cognitive skills like literacy, numeracy or scientific literacy, non-cognitive ones like creativity, persistence, reliability or communication and/or more specific, technology or vocation specific ones linked to the job, the work or the workplace. Accordingly, skills are developed at home, in school or at the workplace and only a minority of them are certified or certifiable. Often, skills are associated with the outcomes of formal technical and vocational education and training (TVET), which is but a small part of the provisions.

However, to the extent that the definition of TVET includes a broad enough scope of services including school and non-school based, formal and informal, public and private, initial and on-the-job types, we can consider skills as the outcome or the result of various TVET programs. This allows us to assess the performance of the TVET sector in terms of the skills it produces and to propose policies that help to improve this performance with the general objective of improvement in productivity, economic diversification and employment.

The momentum in growth and poverty reduction in Ghana requires a focus on the skills of youth for one good reason: half of the population in Ghana is young and while this new generation of future employees have the highest number of school years completed, they are also the most dependent on wage earning to sustain themselves and their families given the fact that a large number of them moved to urban areas and cannot rely on subsistence agriculture.

Although technical and vocational education and training (TVET) alone does not by itself lead to productivity gains, economic diversification and job-creation, it is generally agreed that cognitive, non-cognitive, intermediate and higher technical skills are crucial for enhancing competitiveness and contributing to social

inclusion, decent work and alleviation of poverty.

Technical and vocational education and training in Ghana has gone through several stages, including various education reforms and policies – both national and international. In the 1990s, in response to the Jomtien Declaration, the Government of Ghana (GoG) launched a program focusing primarily on access - the Free, Compulsory and Universal Basic Education (FCUBE) program. By the mid-2000s, the FCUBE started to result in some of the largest cohorts of primary school leavers ever witnessed in Ghana. The rapid expansion of enrolment in primary and lower- secondary education as part of the Education for All (EFA) process has led to concerns about the youth population who do not have a chance to continue their education beyond Junior High School (JHS). Hence there has been an increased demand for post-basic³ education opportunities.

Policy makers and politicians have responded to this demand by proposing dramatically increased support to post-basic levels, including technical and Vocational Education and Training (TVET). The major drivers for the government's interest in technical and vocational skills development are divided between social and economic considerations: the social concerns include the increased demand for post-basic education and training opportunities by the individual students and their families; and, concerns about unemployment among the youth (World Bank, 2008a). The issue of unemployed Junior High School (JHS) graduates who are unable to take up further education and training (either because of scarce places or due to lacking information or weak performance) is a serious concern to government at the highest level – as is the fact that the majority of JHS graduates end up working in low productive informal jobs. The economic concerns include the dominance of the informal economy, low productivity in most industries and the limited sustainability of economic growth given, among others, the vulnerability of the leading industries to fluctuation of commodity prices.

Ghana's workforce has grown rapidly since its independence in 1957; formal employment has failed to grow at the same rate, resulting in significant levels of unemployment and underemployment (ILO, 2003). Fortunately, the Government of Ghana (GOG) recognizes that the country's training system is not yet producing employable graduates with the right skills (Ministry of Education, Science and Sports, 2008) and it has therefore placed technical and vocational education and training (TVET) at the centre of its policies to help solve employment problems and reduce poverty (King and Palmer, 2007). Employment rates of TVET graduates in Ghana are low, thereby providing the grounds for Akeampong (2010) to suggest that TVET has been too supply-driven and focuses on training which has a low market demand, thus setting the pace for a demand-driven and industry-led TVET system. Palmer (2005) questions the entire premise of the TVET agenda in

Ghana, stating that a link between training and self-employment creation has never been established: 'More research based evidence is required that examines the relationships between skills development for poverty reduction and growth, particularly with respect to the informal economy. Reasons for a lack of TVET relevance may include incorrect assumptions about the labour market or an inadequate needs assessment, lack of links between training providers and business, out-dated curricula and equipment, inability or unwillingness of training providers to adapt to change, and the delivery of training for the wrong reasons (Akeampong, 2010). Mureithi (2009), on the other hand, points out that training by itself does not create jobs; skills must be applicable and economic conditions supportive.

TVET training

Formal TVET training programmes at senior high education level are offered through technical senior high schools and technical institutes (Gondwe and Walenkamp, op. cit.). According to Akyeampong (2002), successful vocationalisation of the senior high education system must ensure the provision of adequate equipment and materials provide professional teacher training and increase levels of students' enrolment to reduce high unit costs without reducing quality. It should also focus on broader employability skills, including numeracy and literacy, problem-solving, decision making and negotiation skills (Botchie and Ahadzie, op. cit.).

Subject requirements for university entrance affect both the TVET subjects offered by schools and learner choices (Akyeampong, op. cit.). This can lead learners who later choose a vocational route to study subjects which are of little practical use. Assessment is another area which requires greater policy focus; TVET assessment is often based upon assessment techniques used in general education and has insufficient practical focus (ibid.).

More than 90% of training takes place within the informal sector (African Union, op. cit.) often through apprenticeships. This is leading to an increased need for business management and entrepreneurial skills training to equip people to operate within the informal sector (ibid.). Non-formal training, defined as training which takes place outside the education system, is provided principally by community organizations and NGOs. Botchie and Ahadzie (2004, p. 18) point out that training services are often provided by 'inexperienced staff who are not necessarily familiar with the needs of the informal sector workers'. Lack of co-ordination between agencies can lead to duplication of activities and gaps in the provision of training in certain trades; training can be specific, limited in reach and linked to negative labour market outcomes (ibid.).

Informal training is diverse and tends not to be under-

pinned by curricula. It has a practical focus with little theoretical content and consists mainly of apprenticeships in Ghana (ibid.). 19% of the working age population has previously undertaken an apprenticeship, and 7% are currently apprentices; this compares to 8% who have undertaken any other vocational or technical training (Monk et al., op. cit.). 60% of junior high school leavers (not continuing in school) enter apprenticeships (OECD, op. cit.).

Traditional apprenticeships in Ghana are often centred in the family or community (ibid.) and incorporate 'moral upbringing' as well as the transfer of practical skills (Haan, 2001, p. 120).

They average two years and nine months, although durations vary significantly; they range from one year and 11 months (fishing/hunting/forestry) to three-and-a-half years (mechanics) (Ghana Statistical Service, 2008). Textiles, apparel and furnishing apprenticeships are the most popular, representing 36% of the total number; this is followed by building (15%) and personal/grounds service (14%) (ibid.). Most apprentices are self-employed or work in small firms, highlighting their importance in the informal sector (Monk et al., op. cit.).

Challenges are prevalent in the informal apprenticeship system. A lack of basic literacy and numeracy skills in apprentices has undermined their ability to develop knowledge and competencies (Botchie and Ahadzie, op. cit.); the majority of Ghanaian apprentices have attained junior secondary level or below (Monk et al., op. cit.). While apprenticeships represent an accessible training route for the poor, costs attached to apprenticeships mean that the very poor are excluded (King and Palmer, op. cit.). Physical environmental factors are often unsafe and present limitations on the effectiveness of training; most trainers have received no training themselves on how to teach; training standards and instructional material are limited for many subjects; and there is a lack of external assessment (Botchie and Ahadzie, op. cit.).

Singh (2000) has suggested that traditional apprenticeships could be complemented by formal training programmes in business centres, which would bypass some of their limitations while allowing their value not to be diluted. Apprentices studying certain crafts are able to take tests administered by the relevant trade associations, which has encouraged the use of training standards in certain areas (Botchie and Ahadzie, op. cit.).

Funding

Cost constraints have hampered the development of TVET in Ghana (Akyeampong, 2010). Despite Akyeampong's assertion that Ghana's TVET education budget allocation remains unchanged at around 1%, the allocation grew to 2.4% in 2007 and was 1.9% in 2008 (Allsop et al., 2010). Expenditure has not matched allocation; however, TVET expenditure in 2007 was only

one quarter of the budget allocation, at 0.6% (ibid.). Private funding sources include international grants and fees charged to learners (Anamuah-Mensah, op. cit.). TVET costs are high due to a need for specialized equipment, tools and training materials (ibid.). Sustainable finance is needed to develop TVET infrastructure (Akyeampong, op. cit.).

According to Botchie and Ahadzie (2004, p. 24), there is 'a huge gap between policy prescriptions and the commitment of fiscal resources for the realization of the objectives of [skills development] policies'. They add that training systems receive insufficient funding, and that traditional apprenticeships receive no funding. The Government is currently working to reduce dependence on state funding by encouraging greater contributions from individual trainees, local communities and businesses (OECD, op. cit.). Gondwe and Walenkamp (op. cit.) state that the Ministry of Education's large share of the national budget is being used effectively on recurring costs, such as salaries, and important works such as facilities maintenance; they suggest that sectoral improvements will only be realized through additional funding from sources such as oil export profits.

The Ghana Education Trust fund (GET fund), which is financed through VAT receipts is used to address funding shortfalls in pre-tertiary and tertiary education (Akyeampong, op. cit.). Between 1998 and 2000, the GET fund helped to increase polytechnic funding from 28% to 58% of the total estimated requirement (Effah, 2003, cited in Akyeampong, op. cit.).

Funding for poorer learners is a particular challenge. Solutions may include microcredit schemes, community subsidies and state funding (Botchie and Ahadzie, op. cit.). Anamuah-Mensah (op. cit.) has suggested the diversification of TVET funding through an employer levy system and a graduate tax. Small Business Centres run by training providers and their learners could help to generate much needed income; Anamuah-Mensah suggests that seed capital for their establishment could come from funds such as the District Assembly Common Fund and the Heavily Indebted Poor Countries Fund. Savings could be made through improvements in institutional efficiencies (Singh, op. cit.).

RESEARCH METHODOLOGY

The study was carried out at Kokomlemle, a suburb of Accra at the Pilot Training Center –National Vocational Training Institute. The Institute was established in 1970 by the Government of Ghana and the International Labour Organization (ILO) out of the demand for skilled craftsmen for the country. This institute was selected because of the high caliber of professionals managing the place, the variety of courses offered there and the population density of construction contractors within the Kokomlemle community.

The target population for the study was staff of the centre, past and present students of NVTI/PTC and employers (contractors) within the Accra Metropolis. The population is made up of persons belonging to the following groups: Tutors of NVTI/PTC Accra, current students of NVTI/PTC Accra, past students of NVTI/PTC Accra and employers (contractors) within the Accra Metropolis

Table 1. Breakdown of study population.

#	Groups	Freq
1	Tutors (PTC)	10
2	Past-students (PTC)	30
3	Current students (PTC)	110
4	Employers (contractors)	10
	Total	160

Source: Field work 2011.

(Table 1).

Considering the sampling frame of one hundred and sixty (160) in terms of the daily activities and schedules, a sample size of one hundred forty five (145) was used, representing approximately ninety one percent (91%) of the sampling frame. In selecting the sample size, the units in the sample frame were taken into consideration. The data collected is a representative sample size of one hundred and forty five (145). This consisted of 10 tutors, 10 employers, 15 past students and 110 current students.

The simple random sampling method was used because each unit of the population had an equal probability of inclusion in the sample. Students, since they were scattered and difficult to contact. The simple random sampling method was the appropriate approach used because each unit of the population had an equal probability of inclusion in the sample.

A lot of factors were considered in the selection of the sample, the reason being that, the objectivity of any research depends much on the fairness of its data. Thus, the data should be free from any elements of biased information. This could be possible with the effective utilization of the simple random sampling techniques. In view of this, all the people who were in one way or the other involved in the issues of career challenges in the construction craft training programmes were considered. The subjects were carefully selected, in order to, as much as possible, avoid any biased information.

To examine the career challenges in the construction craft training in the NVTI/PTC and among employers in the Accra Metropolis, the study utilized two main sources of data; primary and secondary data. The primary data were obtained from a questionnaire. The questionnaire items prepared were thirty four (34) opened-ended questions and ten (10) closed types of questions. In all forty four (44) items were designed. Respondents were either asked to tick yes or give reasons or explanations in some cases. Some of the questions also required multiple choice answers. The validity of the questionnaire was assessed after it was pretested on some tutors of the pilot training centre at PTC in Accra.

The secondary data were obtained from published and unpublished documents related to the literature on the construction craft training and the construction industry. These sources included published articles, journals, magazines, books and the internet source.

The data analysis involved examining the survey questionnaires, coding of the survey responses and keying data into a database in the Statistical Package for Social Science version 16 (SPSS 16.0). Frequency distributions and descriptive statistics were done. Frequency tables and descriptive statistics were constructed to display results with respect to each of the research questions.

DISCUSSION OF RESULTS

The outcome of the views sought from the use of the

survey instruments and interview guides are interpreted and analyzed in the light of the problem statement. The study revealed the career challenges in the construction craft training in TVET institutions through the interaction with stakeholders and training providers as well as the personnel in the building construction industry within Kokomlemle, a suburb of the Accra Metropolis.

Reasons for low patronage of technical education in Ghana

For many years, technical and vocational education in Africa has been considered as a career path for the less academically endowed. This perception has been fuelled by the low academic requirements for admission into TVET programmes and the limited prospects for further education and professional development. Worse, the impression is sometimes created by governments that the primary objective of the vocational education track is to keep dropouts and “lockouts” from the basic and senior high school system off the streets, rather than project this type of training as an effective strategy to train skilled workers for the employment market. The term “lockouts” refers to students who are unable to move up the educational ladder, not because of poor grades but because of lack of places at the higher level. However, from the responses, 84.3% did not support the assertion that technical education was meant for the less academically endowed students. Only 15.7% supported the assertion.

29 respondents representing one fifth of the respondents (20.7%) said high facility user fees charged by Technical Institutions was the cause of low patronage of technical education, 33.6%; said intensive physical practical work is the cause, 12.9% said the low status of TVET graduates is the cause and 32.9% said family's desire for prestigious positions in society tends to deter students from selecting Technical Institutions. These results clearly indicate that most parents and students decline to offer technical programmes because of the arduous nature of the work. This is further influenced by the general perception that technical education is meant, for the academically weak students as described, by Owusu-Asamoah (2007). Most parents also deny their wards that have the passion for technical courses and rather prescribe technical education for their children who are academically weak.

Society also perceives technical education as a programme meant for the poor in society but this was refuted when 80% of the respondents disagreed with that notion. Only 20% supported this perception which is insignificant. Society respects technicians and engineers for the roles they play in the society but most of these professional were trained through the technical and vocational sector. This means that most people in the technical education sector are well trained professionals just like engineers and technicians who are not poor in the society. Most of them establish industries and

companies and employ others.

The study also revealed that those enrolled onto technical education were only motivated because of job security or the individual interest of the student. Responses from the questionnaire indicated that 10.7% of the respondents were of the view that the absence of boarding houses in technical schools could lead to low patronage, 40.7% of the respondents mentioned obsolete, outmoded or absence of tools for training as a factor, 32.1% said the absence of, or inadequate teaching and learning materials for both teachers and students was a credible source of the low patronage and 16.4% of the respondents identified the lack of workshops as a factor. It is evident that construction work cannot be done without appropriate and adequate materials and tools. Where these two components are missing, work comes to a standstill in the same vein teaching and learning cannot take place.

Ebeh (2011) points out that only one percent of the Ghana Education Service (GES) budget is allotted to TVET which does not portray any seriousness in technical and vocational education, while poor infrastructure development at the technical/ vocational institution in polytechnics are left unattended to (GES, 2007). This situation leads students' completing programmes with only theoretical insight without any practical skills for the construction industry. It also suggests that generally, the quality of training is low, with undue emphasis on theory and certification rather than on skills acquisition and proficiency testing. Inadequate instructor training, obsolete training equipment, and lack of instructional materials are some of the factors that combine to reduce the effectiveness of training in meeting the required knowledge, skills and objectives. High quality skills training requires qualified instructors, appropriate workshop equipment, adequate supply of training materials, and practice by learners.

Invariably due to this low quality training, graduates from the technical institutes end up being half-baked professionals and lack the competence to secure employment at the competitive job market. This assertion is supported by Akyeampong (2010) to suggest that TVET has been too supply-driven and focuses on training which has a low market demand. Reasons for a lack of TVET relevance may include incorrect assumptions about the labour market or an inadequate needs assessment, lack of links between training providers and business, out-dated curricula and equipment, inability or unwillingness of training providers to adapt to change, and the delivery of training for the wrong reasons.

To buttress the rationale for the low patronage of technical education, the study found out that, 55.7% of the respondents categorically indicated that until of late, technical education did not have any direct link with tertiary education such that students in that sector could further their education. In the same vein no scholarships are made available for technical students to pursue further education as compared to general education.

Some of the respondents mostly the younger ones who do not have any sound background of education in the country, comprising 44.3% said there was a link between technical education and further studies at the tertiary level. This assertion is confirmed because according to Anamuah-Mensah, (*op. cit.*) TVET is perceived across Africa as a route for those who are not able to function within an academic setting; this perception is compounded by a lack of progression routes from TVET into higher education (African Union, *op. cit.*). Negative perceptions are not limited to those who have little understanding of TVET: a 2002 survey of public TVET teachers found that none of the 87 respondents wanted their own children to study TVET programmes.

The study identified technical education to have links with industry as 97 respondents representing 71.9% acceded to this assertion while only 28.1% disagreed. The results therefore proved that technical education has direct links with industries, since most of the graduates from the TVET training institutions are employed in the industry. Most trainees/ students in the technical education do periodic industrial attachment or on the job training with the industries before completing their training programmes; thereby linking them to job opportunities after graduating. The outcome of this finding disagrees with Akyeampong (2010) to suggest that TVET has been too supply-driven and focuses on training which has a low market demand.

Mureithi (2009) points out that training by itself does not create jobs; skills must be applicable and economic conditions supportive. Such economic conditions might include the availability of seed funding for those who have completed entrepreneurship training (*ibid.*). Palmer questions the entire premise of the TVET agenda in Ghana, stating that a link between training and self-employment creation has never been established: 'More research based evidence is required that examines the relationships between skills development for poverty reduction and growth, particularly with respect to the informal economy' (2007, p. 22).

Population growth in developing countries is quite high with individuals from the extended family homes making all efforts to construct their own houses. Apart from that every hamlet in Ghana is seen developing infrastructure for domestic, commercial and industrial purposes. This is also a sector which employs both skilled and unskilled labor for production. The responses from respondents acceded to this assertion when 85.7% of respondents confirmed that the Building and Construction Technology programme was very marketable as jobs are always available at all times while only 14.3% seem not to see the prospects of the course.

Attitude of students, parents and society towards technical education in Ghana

The Government of Ghana wants vocational/technical

education to occupy a prominent position in our Senior High Schools and that is why COTVET was established to regulate TVET, yet Ghanaian schools pay little or no attention to vocational/technical subjects. Teachers and students seem not to understand what it is all about and consequently, develop some contempt and aversion for the subjects. As such, vocational/technical subjects remain unhealthy. In this vein the study sought to find out whether staff in TVET were academically weak. One-tenth of the respondents (20%; n=28) acceded to the notion that staff in TVET were weak academically. Nearly eight-tenth of the respondents (77.1%; n=108) refuted the notion and went further to state that staff in TVET were highly qualified personnel. The remaining four respondents (2.9%; n=4) did not comment on the matter. From the results it is suggested that staff of TVET were well trained professionals from tertiary institutions and are self-motivated individuals who are desirous of training the younger generation for the development of the country. It could therefore be concluded that there may be other strenuous factors which affect the performance of the teachers and not necessarily because they are academically weak. The skills that teachers exhibit in teaching influence students' enrolment in vocational/technical subjects. Onwuka (1981) postulated that the method of approach is very vital in any teaching/learning situation. The way the teacher presents the subject matter to the learner may make a student like or dislike a subject. Nwaogwugwu (1989), points out that there is the need for blending theoretical and practical work in teaching of subjects as to stimulate students' interest more especially on vocation technical subjects than the greatest single factor in teaching learning in the classroom. No technique, no method, no device, no gadget can guarantee success, but only an effective qualified teacher can adequately execute these (Okafor, 1987). Thus the greatest motivating device yet undiscovered is the highly motivated teacher who actively engages students in the teaching and learning process in the form of planning projects, field trips, directed field activities etc. Route learning and subject centered orientation should be changed to a more practical and child centered out-look. The increase in qualities and quantities of outputs should be primarily due to improvement in the quality of the teacher.

Many of the occupations and trades are regarded as ignoble and unbecoming. An average Ghanaian parent does not want his son to earn a living as a full time farmer, a mason, a watch-repairer, a plumber, a house painter, for many Ghanaians, these jobs are for the poor, low class, marginalize and underprivileged. With this perception, the paper sought views from respondents as to whether those who select construction technology were poor. In response, 37 respondents representing 26.4% acceded to the statement and went further to explain that most professionals who choose construction technology were poor. However, 73.6% of the respondents disagreed with this assertion and further stated that those

in the construction industry were wealthy and even provide employment opportunities for others. The findings support Mkpa (1986) to opine that the family into which a child is born exerts a profound influence on the child's career, because his occupational life is conditioned by the child's education which depends to a considerable extent on the family. Also the position of the parent in one society sometime influences students' interest in the study of vocational/technical subjects. Whereas some illiterate parents do not consider any subject/course were important than the other and the student from such parents could not be influenced to choose any particular course of study.

The discussion in the previous paragraph generated another question which sought to find out whether the programmes offered at the technical/vocational institutes were proactive. In response, 55.7% of respondents opined that the training programmes were proactive while 44.3% disagreed. The results seek to suggest that training providers who have the human resources, tools; materials and facilities could be proactive in their training programmes and vice versa. This shortfall in technical training corroborates a study conducted by Akplu and Amankrah (2008) on the efficacy of technical programmes which revealed that technical graduates lack the requisite practical skills for the world of work and, in most cases, such graduates are retrained before being employed. The formal industry views this shortfall as a frustration with the public TVET system, hence the need for their involvement in TVET curricula design.

Again to refute the assertion that the construction craft sector was for the poor, the study revealed that 82.9% representing 116 respondents said that the construction technology programme was a lucrative field of study while only 17.1% representing 24 respondents disagreed that it was a lucrative venture. This finding is not surprising because, the people involved in the construction sector are contractors, who have the facilities to employ others to implement their work. The construction craft course has a direct link to the building industry and job security is assured. Those who dislike physical work view the course as a tedious activity other than a lucrative sector.

Aside TVET graduates being described as poor especially those in the construction industry, it is also said to be prescribed for dirty people. In response to this, 17.9% ascribed to this statement while the remaining 82.1% refuted the statement. They said without technicians and artisans, social services such provision of houses, water, electricity and designing of vehicles would not have come to fruition. The African adage which states that "the dirty hand will bring food, but the clean hands will result hunger" remains a reality. The general perception that technical programmes are reserved for dirty students cannot be over emphasized. This buttresses Annor (1999) that people who enrolled onto technical education were not respected and employed at

the low or middle work force. This perception reflects the reality at the selection of students for technical programmes; those who do not get the right aggregate to enter the senior high schools are enrolled.

The study also found out how many parents would want to enroll their wards in TVET Centres. The responses revealed that more than a half of the respondents (90.7%, n=127) gave positive response while (9.3%; n=13) declined to enroll any of their wards into Technical Vocational Education Training Centres or Institutes. Padunny (1994) however, stressed that typically the higher the occupational status of the student's parents, the positive their attitude towards science. This is to say that higher occupational parents would want their child to be doctors, engineering etc. without considering if the child would actually read science subject to achieve that. The influence of parents in the development of student's interest in vocational/technical subjects cannot be over emphasized. This is because parents seem to have much influence on children's choice of educational career. The socio-economic status of parent of a child determines the type of career one choose to do. Some parents have biased and rigid thoughts regarding the occupational choices of a child/children. Parents forget that every type of work, once it is beneficial to the individual and society, is worthy and noble (Nwankwo, 1996).

The technological and infrastructure development of every nation depends on its sound technical/vocational base yet governments of developing countries pay less attention to this area. The field survey revealed that 80% of the target populations confirmed that there is the need for skills development yet TVET is expensive. Only 20% postulated that the Government does not need any sound technical educational base in order to develop the country. Akyeampong (2010) opined that cost constraints have hampered the development of TVET in Ghana. Despite Akyeampong's assertion that Ghana's TVET education budget allocation remains unchanged at around 1%, the allocation grew to 2.4% in 2007 and was 1.9% in 2008 (Allsop et al., 2010). Expenditure has not matched allocation, however: TVET expenditure in 2007 was only one quarter of the budget allocation, at 0.6% (ibid.). Private funding sources include international grants and fees charged to learners (Anamuah-Mensah, op. cit.). According to Botchie and Ahadzie (2004, p. 24), there is 'a huge gap between policy prescriptions and the commitment of fiscal resources for the realization of the objectives of (skills development) policies'. They added that training systems receive insufficient funding, and that traditional apprenticeships receive no funding. Gondwe and Walenkamp (op. cit.) state that the Ministry of Education's large share of the national budget is being used effectively on recurring costs, such as salaries, and important works such as facilities maintenance; they suggest that sectoral improvements will only be realized through additional funding from sources such as oil export profits.

Table 2. Responses to the model for the efficient underpinning of the challenges facing the construction craft training in Technical/Vocational Institutes in Ghana.

S/N	Item	Yes	%	No	%	Total (N=140)	%
1	Creating linkages between tertiary education and Technical/Vocational Institutions	85	60.7	55	39.3	140	100
2	Inadequate tools for practical training	92	65.7	48	34.3	140	100
3	Lack of training materials hampers effective training delivery	118	84.3	22	15.7	140	100
4	Have you participated on the job training programme before completion of course	88	62.9	52	37.1	140	100
5	Are they variation of career courses on TVET	113	80.7	27	19.3	140	100
6	Is Competency Based Training a good alternative for TVET?	100	71.4	40	28.6	140	100
7	Has NVTI changed her training programmes from the workshops to construction sites?	96	68.6	31	31.4	140	100

Source: Field work 2011.

Model for efficient underpinning of the challenges facing the construction craft training in technical/vocational institutes in Ghana

Table 2 revealed that a majority 60.7% of the respondents said there was direct linkage between tertiary education and technical/vocational institutes and this offers them the opportunity to pursue further education. In terms of provision of adequate tools for training, 65.7% of the students said they never had enough materials during practical lessons. These results reflect the real situation training centres face with respect to the requisite tools for training. This buttresses Ebeh's (2011) study where he opined that technical institutes were housed in structures that look like abandoned farm houses with absolute machinery and equipment in dilapidated workshops. The absence of tools, leads TVET graduates to end up being half-baked professionals in their fields of specialty. This study also makes it a reality when 84.3% of the students indicated that insufficient provision of training materials hampers practical work. In the construction industry, materials contribute 80% of the work output. This is evident in towns and cities, where most uncompleted structures are found indicating a shortage of materials. There is therefore some form of correlation between training and sufficient material supply. Inadequate provision of materials affects every aspect of the construction career training. Indeed, 62.9% said they had participated on-the-job (OTJ) training. On-the-job in the technical education is similar to that of the medical field where newly trained Doctors go in for houseman ship training. This period is also known as an industrial attachment programme, where trainees are exposed to all the rudiments of their careers. Trainees who do not participate in the on-the-job training miss lots of practical ski.

Varied career choices came out as one of the most eminent models to underpin the challenges facing TVET as 80.7% of respondents affirmed in Table 2 that there

are varied career choices in the TVET training programmes. The outcome of this response reflects in the majority of the students. It is within these training programmes that career choices are selected as students are provided with guidance and counseling services to select careers of their interest and abilities. As a way of finding better evaluation approaches, 71.4% of the students said the competency based training approach was a good alternative for the assessment of TVET programmes. The students' response is not surprising because, in training, both skills and competencies are acquired. Therefore, the Competency Based Training (CBT) would remain a mirage if enough resources are not made available for its implementation of programmes. This model needs a component of follow-up, to ensure that all trainees have acquired the right competencies or skills needed for the job market. With the COVET Skill Development Fund (SDF) now available, the CBT integration into TVET training programmes is a laudable idea.

However, 68.6% gave an indication that the NVTI has changed her training programmes from the workshops to construction site among others. This according to the students gives them sufficient opportunity for practical sessions in the vocational training programmes of the centre. It also indicates that students are adequately equipped with vocational skills that make them ready for employment. It therefore suggests that any human institution, which does not make amendments and changes, is bound to fail. The study also revealed that the NVTI has changed their training syllabus and added the Master Craftsmanship programme. Programmes or curricular are periodically changed to meet the current challenges and needs of the beneficiaries of the training. Respondents also indicated that it takes between one and four years to acquire the skills for the construction industry. It is only appropriate for institutions to have a period of training where students would be well equipped with the necessary skills and capacity to enhance their output. It is in this respect that the NVTI has put in place

Table 3. Response to the progression of the construction industry in Ghana in relation to the construction craft course of TVET.

S/N	Item	4SA	3A	2D	1SD	Mean	Decision
1	There are always potential jobs in the construction sector	85	46	4	5	3.5	Agree
2	Practical training promotes career choices	65	57	7	1	3.4	Agree
3	Construction careers are described as dirty professionals	60	54	21	5	3.3	Agree
4	Provision of inadequate materials affect training	34	91	13	2	3.1	Agree
5	The public has a negative perception towards technical education	23	39	52	26	2.2	Disagree
6	The construction craft course is geared towards national development	26	90	14	10	2.9	Agree
7	The construction sector employs technically trained personnel	19	45	59	17	2.4	Disagree
8	Funding is a serious challenge facing technical education in Ghana	72	52	5	11	3.2	Agree

Source: Field work 2011 X \geq 2.5 Agree. Key: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree.

a three years apprenticeship training programme. Akplu and Amankrah (2008) on the efficacy of technical programmes revealed that technical graduates lack the requisite practical skills for the world of work and, in most cases, such graduates are retrained before being employed. The formal industry views this shortfall as a frustration with the public TVET system, hence the need for their involvement in TVET curricula design.

The construction craft course and the progression of the construction industry in Ghana

The study sought to find out the impact of the construction craft course in TVET on the construction industry in Ghana. A rating scale of strongly agree, agree, disagree and strongly disagree with apportioned marks of 4, 3, 2, and 1 respectively with a mean mark of 2.5 and above to indicate a respondent's agreement to the statement or less than 2.5 to imply disagreement.

Table 3 contains the statements and the responses and the decisions taken. Eight statements were asked in all and six of them caught the support of respondents while only two did not appeal to the conscience of respondents. The outcomes of the findings in Table 3 and the decisions taken reflect the responses on the issues discussed. Trainees cannot master a trade without materials for practice. Many TVET institutions are not well resourced as indicated by Ebeh (2011) that only "one per cent of the GES budget is allocated to TVET delivery which is woefully inadequate and cannot support achieve the objectives of the TVET programmes. This inadequate funding and insufficient support from Government affect the graduates from TVET because they are unable to get the right caliber of training. Ayinga (2011) in his study disclosed that, Technical, Vocational training was going to take the centre stage to address challenges in education. He therefore hoped that with the new TVET policy, which COTVET is implementing, TVET institutions would be adequately resourced, to deliver their mandate.

In terms of the public perception on technical education as being bad, Owusu-Asamoah (2007) specifically stated

that 'when technical/vocational education is mentioned, what people form in their minds masonry, carpentry, is sewing, baking etc. Many people think that technical education has nothing to do with the cognitive and affective domains of the TVET graduates. They believe that graduates of TVET rely solely on their psychomotor domains of learning and nothing more.

Technically and professionally, trained personnel from the construction craft programme are supposed to be employed in the building construction industry, but the study revealed that incompetent and unskilled labour are rather employed in that sector. This clearly reflects the recent poor infrastructure developments, in the towns and cities where inferiors' materials are used with improper supervision of projects under incompetent and unprofessional staff. Structures deteriorate before the stipulated period designed for them. Failure to employ the appropriate caliber of technicians and artisans and the attitude of leaving work unsupervised gives anyone the opportunity to use his/her own discretion in taking decisions which leads to rampant collapse of newly built structures. This revelation no doubt gives a clear indication that most of the personnel in the sector are incompetent.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The research was conducted to identify causes of career challenges in the construction craft training in TVET in Ghana and at the NVTI Pilot Training Centre, in the Greater Accra Region of Ghana. Critical analysis of the data gathered from structured qualitative questionnaire and interviews revealed the following causes of career challenges in the TVET training institutions.

The study revealed that in spite of the reportage in both the electronic and print media the objectives of stakeholders in the TVET delivery system and the construction industry, there still remains a lot of work to be done by tutors, the central Government and the public

attitudes to improve training institutions to boost the economy with qualified personnel to run the infant industries and factories.

There is a widely held perception in Ghana that only people who are academically weak undertake technical and vocational education. A significant proportion of current TVET trainees, particularly in the informal sector (primarily apprenticeships), are therefore labelled as school dropouts, which impacts on the self-esteem and external perceptions of trainees' abilities

Evidence from contractors, policy makers and trainees themselves suggests that vocational education is perceived to have a poor rate of return. This stems from the fact that those who enter into vocational education and training in Ghana are more likely to be poor. A high percentage of trainees surveyed came from poor homes, where their parents could not afford to send them into higher education. This trend was even more marked for informal trainees. The stakeholders surveyed often said that vocational training is meant for those who cannot afford formal 'grammar' education. There was also a clear assumption that to gain a well-paid and highly regarded job, you need to go through academic routes. Though this study categorically disagreed with this perception, the idea still holds in the Ghanaian context.

A significant number of respondents (trainees, trainers and parents) believed that there are unlimited employment opportunities for people who undergo vocational and technical education especially the construction craft training course. Some trainees were skeptical about the employment prospects presented by TVET, pointing to a widening gap between the supply of graduates from TVET programmes and the demand from employers.

Many young people, particularly in informal training, were skeptical about the quality of the training they received. Some felt that master craftspersons do not have the requisite skills to impact coupled with the lack of training materials. These differences between trainers' provision of training has an impact on the comparability of trainees and therefore their options for further training and opportunities with other employers. Improving the quality and standardization of informal training is a key concern and needs to be addressed if the sector is to be rejuvenated.

Despite the fact that the study uncovered that there were positive attitudes towards TVET graduates, employers nonetheless felt that graduates did not show a sufficient level of professionalism towards their work. Employers from both the formal and informal sectors appeared frustrated that most new graduates struggle to work on their own without supervision and lack basic employability skills. It is therefore impossible for TVET graduates to meet employers' expectations. Employers generally saw the value of TVET graduates to their business and were positive with regard to the applicability of the skills they had. As a matter of fact institutions offering TVET programmes would perform better if they

get the necessary tools, materials and equipment for effective training as evident from the responses.

The youths need career counseling to help them weigh up the career options opened to them and choose pathways that are relevant to them and meet their desires and interest. However, guidance and counseling for trainees is mostly informal and uncoordinated. Parents, peers and sometimes trainers were sources of guidance and focused on conduct and behaviour during training, rather than discussing future options, prospects and alternatives.

There are indications of a previously unfavourable policy environment for developing TVET. Past policies gave prominence to formal grammar education and higher education, to the neglect of skills training. While this study recognizes the steps made by the current administration using COTVET to begin to mainstream TVET in the policy debate, the esteem of vocational training, the quality of training, and ongoing support after training are still problems and must be addressed. These issues have culminated in the existing system which has limited progression routes for TVET graduates from both formal and informal training.

Industrial attachment has been identified as a major avenue to polish up trainees' practical knowledge and skills in their selected fields. The study pronounced that if proper industrial attachment programmes are initiated with systematic monitoring activities incorporated into the TVET programmes, trainees would acquire right skills for the job market.

A poor linkage between TVET centres and tertiary institutions was branded one of the major setbacks of low patronage of technical vocational education. The discourse observes that, where there are appropriate linkages between employers and training providers would attract more trainees, increase the enrolment rates and close the gap of unemployment of TVET graduates.

Inadequate budgetary allocation by Government, poor monitoring and supervision by NVTI and COTVET and lack of seed money for TVET graduates to establish their own businesses has led to inefficient training of TVET graduates, variation in training approaches and lack of employment respectively.

RECOMMENDATIONS

It is imperative that COTVET and its allied agencies take steps to address the issue of negative attitudes and perceptions through programmes to enhance the image of TVET. To ensure effectiveness, any campaign should coincide with programmes to improve the quality of training provision. Policy issues, including support for learners during and after training, the quality of training provision and funding for the sector, must also be resolved. It is also crucial to develop a coordinated structure and system for guidance and counseling for

young people in TVET.

Negative attitudes and perceptions greatly obscure the gains from TVET for young people. It is important that an image-enhancing project is initiated as part of COTVET's strategy. The campaign should promote vocational pathways as viable education options for young people, along-side higher education linkages. COTVET could consider collaborating with the Department of Information to implement the campaign. It is also important to give young people access to vocational training at an early age to improve their understanding of training pathways and possible careers. With this in mind, options such as taster days for school children to go to training institutes and workshops could be adopted as part of a promotional strategy.

Any campaign aiming to improve the image of TVET must be targeted directly at the stakeholders it wishes to influence, particularly parents, who are the key providers of careers advice, and young people. The campaign should focus on sectors where the financial and career benefits of pursuing a TVET-related career are clear. In addition, it is essential to target those trades that are socially stigmatized, such as hairdressing, beauty therapy and auto-mechanics, because they have the potential to absorb high numbers of young people.

Career guidance and counseling are important for providing relevant pathways to young people. It is recommended that COTVET takes steps to re-introduce guidance and counseling co-coordinators into both formal and informal training systems. COTVET will need to collaborate with the Ghana Education Service to optimize current and future provision, develop a careers guidance framework and improve transfer ability between different learning pathways.

There is also a need to train teachers to ensure that they are able to understand and communicate the different options open to young people, as well as information about where these options may lead and employers' workplace expectations. The teachers should be equipped with both the theoretical and practical skills in order to be able to teach effectively to meet the desired objectives of TVET. Improved labour market information will enhance the ability of advisors to understand where opportunities lie within the labour market and are a key requirement to improve the supply and demand of skills.

There has been an appreciable attempt to introduce policies to enhance the TVET system through the initiation of COTVET. There is, however, a need to align the framework with other supportive policy, such as small business development. Policies that address funding difficulties for the informal sector, particularly support for trainees, are desirable. The proposed Government support for the first year of training for traditional apprenticeships is laudable but could be expanded to include support for young graduates who need to set up workshops.

The issue of credit for start-up capital for graduates is

important to enhance self-employment opportunities, which is a key aim of the existing TVET system. The Government could therefore consider integrating the skills development fund with credit provision to micro and small enterprise establishment.

Master craftspersons constitute a critical mass of professionals whose potential can be harnessed to enhance the quality of TVET training. There are inconsistencies in training arrangements from one trainer to another, with varied teaching methods. It is recommended that the issue of standardization be given greater attention, and the training capacity of master craftspersons developed so that they can provide quality training with relevant curricula and improved pedagogy. This would serve to improve the marketability of skills and enhance comparability between trainees. A supporting structure would need to be put in place to ensure that trainers are able to gain access to the required information and knowledge in the long term, as well as ongoing support.

There is also a need for further research into good practice in terms of developing a training system for informal trainers, to identify what has worked in different locations. Primarily this research needs to identify approaches which have been able to integrate master craftspersons into a more formalized system of learning with structured improvements in pedagogical ability, whilst also retaining the current benefits of the informal system.

As part of the efforts to create demand for technical and vocational skills, it is important for COTVET to address gaps between the supply and demand of skills. It is recommended that a common platform for employer engagement is developed for industry and training institutions to narrow the gaps between the supply of skills and the demand of industry. To develop the necessary links between industry and training, improved labour market information is again essential to identify growth areas.

A support system for graduates and trainees is also important. If TVET is to continue to generate jobs for self-employment, linking financial provision and wider business support to graduates would be of great benefit. In addition to this, improved access for both informal and formal sector trainees to basic skills training, as well as English language provision, could have great benefits for their career progression.

Ensuring that there is support for the informal sector, which makes up a large proportion of the economy, and therefore training requirements in Ghana, is essential to ensure ongoing productivity gains. Further research into potential quality assurance systems, as well as funding models for training, post-training support structures within the informal sector and models of training which would be proactive to the construction industry in the country, would be of great use to the development and viability of TVET in Ghana.

Conflict of Interests

The author(s) have not declared any conflict of interests.

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