



BARAKA POLICY INSTITUTE

**THE QUEST FOR CREATIVE EMPLOYABLE SKILLS:
AN INQUIRY INTO THE STATE OF TECHNICAL/VOCATIONAL
EDUCATION AND TRAINING IN GHANA**

(A BPI Research Report)

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ABSTRACT

This study set out to investigate the state of technical/vocational education in Ghana and to assess the extent to which the programmes offered at the TVET institutions in Ghana prepare students for the industry. It also sought to identify the concerns and expectations of the industry regarding the technical/ vocational institutions which are usually considered as the machinery for rapid economic development in the country. The study utilized both qualitative & quantitative research methods, using two key research instruments; survey questionnaires and semi-structured interview for data collection. In all, the study engaged 440 participants (429 questionnaire respondents and 11 key interviewees) from relevant institutions and industries across Ghana. In general, the study revealed that Technical/Vocational institutions across the country are not well-resourced. As a result, they have been struggling in vain to deliver on their mandate. It was established again that the industry barely has confidence in the graduates of the TVET institutions; and this is fundamentally due to the failure of TVET related institutions to provide their trainees with adequate grounding in practical training and industrial exposure. The study recommends among others that there is an urgent need for the government to prioritize TVET and to lend TVET institutions in Ghana the same support level provided to general education from second-cycle to tertiary. The study further recommends that technical/vocational Institutions must as well be properly resourced in terms of workshops, tools, and skilled instructors in order to improve the quality of training availed to students in these institutions. Additionally, the government must initiate mandatory internship partnership programmes with local and foreign industries to facilitate and enhance industrial attachment for students in TVET institutions. This will consolidate the practical training of the students and prepare them adequately for their respective professions and the job market.

ACKNOWLEDGMENTS

First and foremost, we thank the Almighty for giving the Baraka Policy Institute (BPI) the strength and capacity to carry out this research. Secondly, BPI would like to acknowledge the co-operation and warm reception accorded our research team by the heads of all the respondent institutions. We would like to recognize the immeasurable contribution of the institutional gate-keepers such as National Council for Tertiary Education (NCTE), National Vocational Training Institute (NVTI), The Ghana Education Service (GES) and Council for Technical and Vocational Education and Training (COTVET) who allowed us to engage institutions under their jurisdiction and encouraged them to participate in the study.

Additionally, we wish to extend our sincere appreciation and gratitude to the industry, particularly Lakeside Estate Ltd, Advance Construction Ltd, Japan Motors Trading Company Ltd, and Silver Star Auto Ltd for accepting to be part of the study and for providing us with invaluable data.

Finally, we wish to express our appreciation to the BPI Board, the BPI Secretariat including our Research Assistants, and our experts who guided us throughout the study for their hard work and contribution towards the successful completion of this research. May the Almighty God bless all the efforts that led to the execution of this important project.

Thank you!

HARUNA ZAGOON-SAYEED (Ph.D.)

EXECUTIVE DIRECTOR, BPI

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I

INTRODUCTION

1.1 BACKGROUND

Technical and Vocational Education and Training (TVET) has been identified in contemporary educational discourse across the globe as the game changer in transforming traditionally academic-oriented societies to skills-based productive economies capable of equipping the growing youth population with productive and readily employable skills. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has posited that the main purpose for TVET is to attend to the urgent need to train the workforce for self-employment and to boost productivity in the informal sector as well.¹ UNESCO's STRATEGY for TVET (2016-2021) reads as follows:

TVET can equip youth with the skills required to access the world of work, including skills for self-employment. TVET can also improve responsiveness to changing skill-demands by companies and communities, increase productivity and increase wage levels. TVET can reduce access barriers to the world of work, for example through work-based learning, and ensuring that skills gained are recognized and certified. TVET can also offer skills development opportunities for low-skilled people who are under- or unemployed, out-of-school youth and individuals not in education, employment and training (NEETs).²

The ongoing debate about the relevance of many of the programmes offered by the academic tertiary institutions, particularly the universities, to the industry; and the growing numbers of unemployed and redundant graduates from these institutions lend credence to the concern and assertion that all is not well with Ghana's post-secondary education. Considering the increasing rate of Ghana's population coupled with the surge in the rate of youth and graduate unemployment, the need for postsecondary education or training that would equip graduates with essential employable and entrepreneurial skills cannot be overemphasized. This underscores Ghana's earnest desire and quest for skills-based knowledge and production-based economy and hence the premium and priority put on TVET. Notwithstanding, there is an urgent need to understand the current state of technical/vocational education in Ghana, in order to identify the specific skills required; the institutions that can provide them; and the deficits that should be catered for. It is equally pressing to ascertain the extent of priority that should be given to technical/vocational education at the pre-tertiary level. A thorough understanding of these issues among others would enable us formulate responsive and

¹ UNESCO, *Synthesis report: Improving access, equity and relevance in technical vocational education and training (TVET)*, UNESCO, 2004.

² UNESCO, *STRATEGY for Technical and Vocational Education and Training TVET (2016-2021)*, UNESCO, 2016, p.7.

appropriate policies and strategies that will propel the country's industrialization drive as well as solving the problem of youth and graduate unemployment. This study seeks to shed insight into this relevant and timely phenomenon.

1.2 RESEARCH FOCUS

The study seeks to investigate whether there are missing links between the TVET education as pursued currently in the country and the ultimate objective of equipping the trainees with employable and entrepreneurial skills, seeking to identify the factors that account for the missing links (if any) and how they could be addressed to guarantee the intended results from TVET.

1.3 RESEARCH OBJECTIVES

This research sought to:

- Investigate the state of technical/vocational education in Ghana.
- Assess current programmes offered at the technical universities/ polytechnics in Ghana and their bearing on job creation.
- Identify the concerns and expectations of the industry in relation to products of technical/ vocational institutions in the country.

1.4 MAIN RESEARCH QUESTIONS

- To what extent do the programmes offered in TVET institutions align to the ultimate objective for their establishment?
- How do technical/vocational institutions in Ghana fulfil their mandate in the programmes they offer?
- How do technical/vocational institutions connect with skill demands of the industry in Ghana?

1.5 STUDY DURATION

The fieldwork of study lasted for 24 months. The fieldwork formally began in May 2018 and was completed by April, 2020. Indeed, the original timelines for the study was affected by cancelations and postponements of some scheduled interviews due to the Covid-19 pandemic restrictions. This derailed the initial deadlines for the completion of the fieldwork.

2

RESEARCH METHODOLOGY

2.1 DATA COLLECTION TECHNIQUES

The study utilized the mixed (qualitative and quantitative) research methods. This was informed by the varied nature of the data solicited. This necessitated the use of two main research instruments; survey questionnaires and semi-structured interview for the collection of data. In all, 440 respondents participated in the research, comprising 429 questionnaire respondents and 11 key interviewees. The survey questionnaires were administered in 7 technical universities/polytechnics, 11 technical/vocational institutes/NVTI's and 10 industries in the manufacturing, construction and automobile sectors across the country. The respondents for the semi-structured interviews were purposively sampled from the industry, academic institutions, educational experts and students of technical universities and technical/vocational institutes. The rationale for the purposive sampling was to gain expert views and relevant information on TVET.³

The data collected through the survey were carefully coded as espoused by Bhattacharjee⁴ using the Statistical Package for Social Sciences (SPSS), version 16. On the other hand, the interviews were tape-recorded, replayed, and diligently transcribed as qualitative research protocols demand.

The data analysis was augmented by desk-based research of relevant literature, primarily statutory obligations of technical/vocational educational institutions in the country taking into account policy expectations from these institutions as envisioned in the TVET statutory establishment, (Act 718, 2006). The use of mixed method enabled the study to combine the strengths of both quantitative and qualitative approaches and to compensate at the same time for the weaknesses inherent in each method as noted by Keith F. Punch and Alis Oancea.⁵

2.2 LIST OF RESPONDENT INSTITUTIONS

The study sampled respondents from technical and vocational institutions including technical universities, NVTI establishments, Technical Institutes, and the industry across Ghana. Below is the summary of the key respondents for the study:

2.2.1 Survey Questionnaire Respondents

No.	Name of Institute	Date Administered	Location	Total no.
1	Pilot NVTI	19/06/2018	Accra, GT. Accra	16
2	St. Mary NVTI	11/06/2018	Asemankese, E/R	21
3	Anum NVTI	12/06/2018	Anum, E/R	21

³ Bernard, H.R. *Research Methods in Anthropology: Qualitative and quantitative methods*. 3rd edition. AltaMira Press, Walnut Creek, California. 2002.

⁴ Anol Bhattacharjee, *Social Research: Principles, Methods, and Practices*, Textbooks Collection, Book 3, 2012, p 35. Available at: http://scholarcommons.usf.edu/oa_textbooks/3

⁵ Keith F. Punch and Alis Oancea, *Introduction to Research Methods in Education*, SAGE, 2014, p.339.

4	Kanda NVTI	20/06/2018	Kanda, GT. Accra	16
5	Winneba NVTI	29/06/2018	Winneba, C/R	21
6	Accra Technical Training Centre	16/10/2018	Accra, GT. Accra	21
7	Cape Coast Technical Institute	21/10/2018	Cape Coast, C/R	21
8	Takoradi Technical Institute	29/10/2018	Takoradi, W/R	16
9	Takoradi NVTI	29/10/2018	Takoradi, W/R	21
10	Biriwa NVTI	02/11/2018	Biriwa, C/R	21
11	St. Clare's NVTI	06/11/2018	Tumu, UW/R	24
12	Koforidua Technical University	10/10/2018	Koforidua, E/R	30
13	Takoradi Technical University	12/10/2018	Takoradi, W/R	30
14	Cape Coast Technical University	22/10/2018	Cape Coast, C/R	30
15	Ho Technical University	25/10/2018	Ho, V/R	30
16	Tamale Technical University	30/10/2018	Tamale, N/R	30
17	Sunyani Technical University	06/11/2018	Sunyani, Bono	30
18	Accra Technical University	09/11/2018	Accra, Gt. Accra	30
Total				429

2.2.2 Semi-structured Interview Respondents

No	Name	Designation	Institute/Company	Date of Interview	Location
1	Mr. Salah Kweku Kalmoni	CEO	Lakeside Estate Ltd	11/07/2018	Accra
2	Mr. Derry	Engineer	Advance Construction Ltd	08/08/2018	Accra
3	Mr. Augustie G. Ayirezang	Director-in-charge Technical Education	Ghana Education Service	15/08/2018	Accra,
4	Mr. Francis Oblity Amui	Training Instructor	Japan Motors Ltd	04/10/2018	Accra
5	Prof. (Mrs) Smile Gavua Dzisi	Vice Chancellor	Koforidua Tech. University	10/10/2018	Koforidua
6	Rev. Prof. John Frank Eshun	Vice Chancellor	Takoradi Tech. University	11/10/2018	Takoradi,
7	Mr Michael Martin Crentsil	Registrar	Cape Coast Tech. University	22/10/2018	Cape Coast
8	Prof. Abdulai Salifu Asuro	Vice Chancellor	Tamale Tech. University	28/10/2018	Tamale,
9	Mr. Isaac Aku Korsah		Silver Star Auto Ltd	18/02/2019	Accra
10.	Engr John Ocran	Commissioner of Testing	NVTI, Head office	20/03/2019	Accra
11	Dr Fred Kyei Asamoah	Executive Director	COTVET	25/04/2019	Accra

2.3 CONSENT AND ACCESSIBILITY

The Baraka Policy Institute (BPI) followed due process to gain access to respondents. It duly sought the consent of participant institutions for the study. Before embarking on the study, BPI formally wrote to the three main gate-keeping agencies in-charge of the respondent institutions and received formal approval from them.⁶ The gate-keeping institutions relating to this research were: National Council for Tertiary Education (NCTE), Ghana Education Service (GES), and National Vocational Training Institute (NVTI). Additionally, we also consulted Council for Vocational and Technical Education and Training (COVTET) for both approvals to allow institutions under their jurisdiction to participate in the study and sampled members of Association of Ghana Industries (AGI) for their participation in the study.

⁶ See appendix A: Approval letters from gate-keeping institutions

3

DATA ANALYSIS

3.1 THE STATE OF TECHNICAL /VOCATIONAL EDUCATION IN GHANA: STUDENTS' PERSPECTIVES

One of the primary objectives of the study was to find out the current state of technical/vocational education in Ghana. Students who are the key conduce for achieving the developmental purpose of technical/vocational education are the key objects of analysis in this research. As such, the study sought the views of students of technical/vocational institutions at the pre-tertiary and tertiary levels, in order to get empirical evidence. The data solicited from the students focused on four interrelated issues; their motivation for pursuing Technical/Vocational Education, availability and frequency of functional practical workshop, access to practical sessions (internship) during vacation, and the numerous challenges they face in their training. The inputs from the student participants are discussed below under the respective sub-headings.

3.1.1 Student Motivation for Pursuing Technical/Vocational Education

One of the critical concerns regarding the pursuance of technical/vocational education in Ghana is the apparent lack of motivation for the youth to take such career path. Indeed, there is a negative perception that technical/ vocational education and training (TVET) is meant for less intelligent individuals; and is therefore deemed as a second-class career. This tends to make many basic school graduates less willing to pursue hands-on skills.

Consequently, the perception is that students who enroll in technical/vocational institutes often are not duly motivated or tend to lack self-motivation. Again, it is a common perception that many students of technical/vocational institutions reluctantly accepted admissions to these schools, because they could not secure the grammar schools.

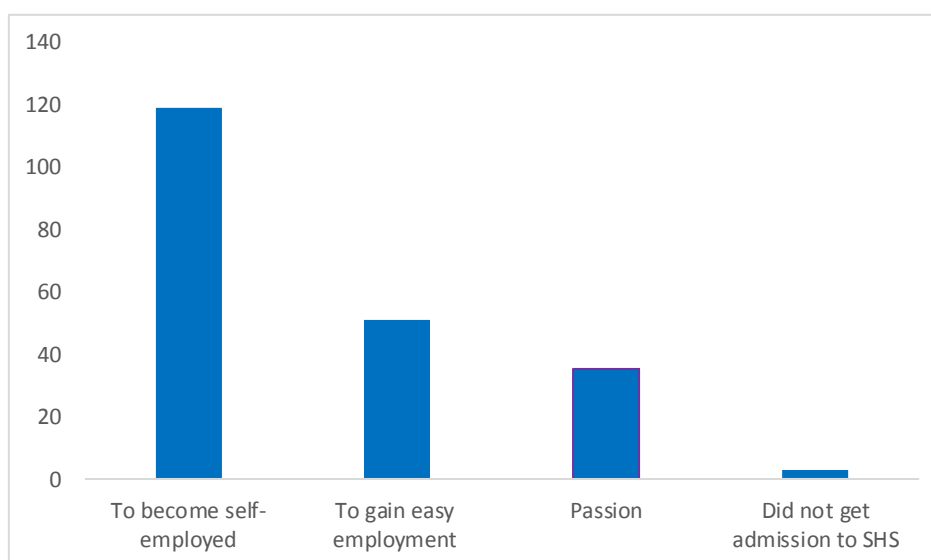
However, when the study sought the views of the sampled students about their choice of technical/vocational schools, majority of them expressed high sense of self-motivation and a great sense of purpose for opting for technical/vocational education. Table 1 provides further detail on this.

Table 1:

Code 6: What was the reason for your choice of a Technical/Vocational school?

	Frequency	Percent	Valid Percent	Cumulative Percent
To become self-employed	119	57.2	57.2	57.2
To gain easy employment	51	24.5	2.5	81.7
Passion	35	16.8	16.8	98.6
Did not get admission to SHS	3	1.4	1.4	100
Total	208	100	100	

What was the reason for your choice of a Technical/vocational school?



From **Table 1** out of the 208 student respondents, 205 representing 98.6% said that self-motivation, passion for hand-on skills and employability are the reasons they were pursuing technical/vocational programmes. This is very revealing since it disproves the perception that students who opt for technical and vocational schools do so, because they lack alternatives. It also signals that with extrinsic motivation by government and proper public orientation, many of the youth will be willing to pursue technical/vocational education. This no doubt provides a fertile ground and fresh opportunity for boosting the national efforts in making TVET the nerve of the country's industrialization drive.

3.1.2 Availability of Functional Practical Workshops.

The trademark of a TVET institution is a functional workshop that is available to students for practical training, but the bane of most TVET institutions in Ghana is lack of well-equipped workshop. Indeed, the main objective of TVET is to give trainees employable skills and that the curriculum of training at all TVET institutions is expected to provide 70 percent practical training and only 30 percent theoretical grounding.⁷ The expectation is that TVET will engender skills acquisition through "Competency-Based Training (CBT)" as indicated by Adam Dasmani.⁸ However, existing workshops in many TVET institutions are in deplorable conditions with majority of them poorly resourced. Below is the summary of responses collated from students on the state of workshops in pre-tertiary TVET institutions.

Table 2:

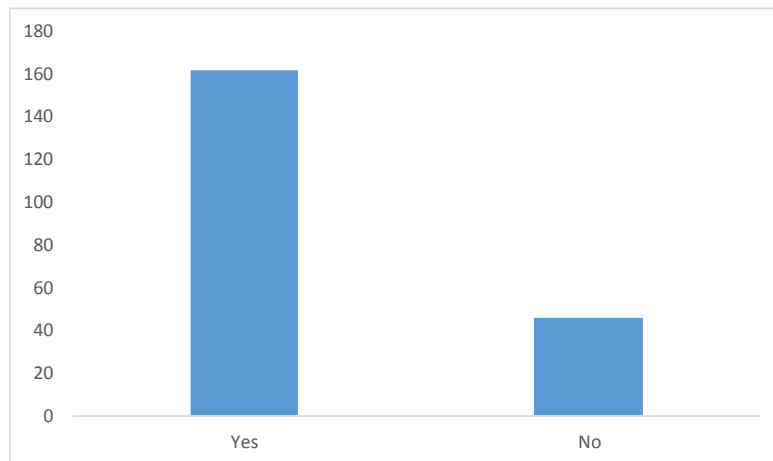
Code 8: Does your course/department has a workshop?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	162	77.9	77.9	77.9
No	46	22.1	22.1	100
Total	208	100	100	

⁷ George Kwaku Dzeto, Quality Education for Qualified Workers, *Ghanaian Panel on Economic Development Report*, Fredrick Ebert Stiftung, 2016, p.100.

⁸ Adam Dasmani, Challenges facing technical institute graduates in practical skills acquisition in the Upper East Region of Ghana, *Asia-Pacific Journal of Cooperative Education*, 12(2), 2011, p.67.

Does your course/department has a workshop?



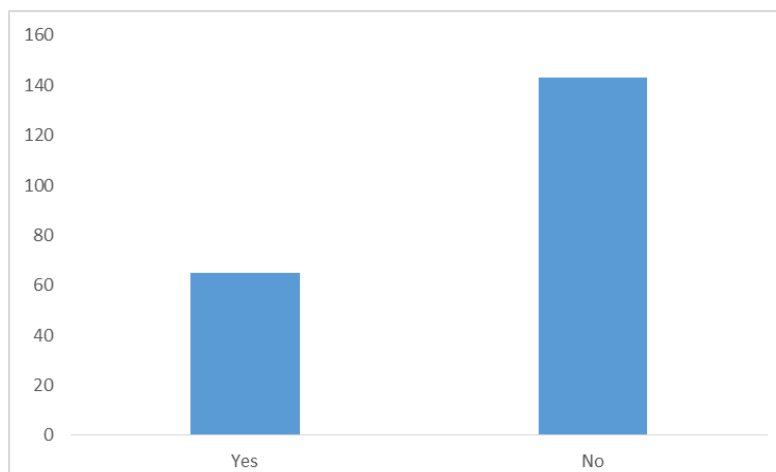
It is evident from Table 2 that an appreciable number of TVET institutions across the country have workshops for practical training. Approximately 78 percent of the students affirmed that they have workshops in their respective institutions. This appears to be encouraging despite the significant number of respondents who indicated that they do not have workshops in their institutes for practical training. However, it appears that even those who mentioned that they have workshops for effective practical learning were possibly referring to the buildings designated as workshops in their institutions without any thought on whether there was requisite equipment in those buildings. This is because when they were asked about the availability of essential equipment at the workshop, the overwhelming response was in the negative. Table 3 below sums up the responses of the student respondents on that.

Table 3:

Code 9: Are all the equipment needed for practicals at the workshop available?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	65	31.2	31.2	31.2
No	143	68.8	68.8	100
Total	208	100	100	

Are all the equipment needed for practicals at the workshop available?



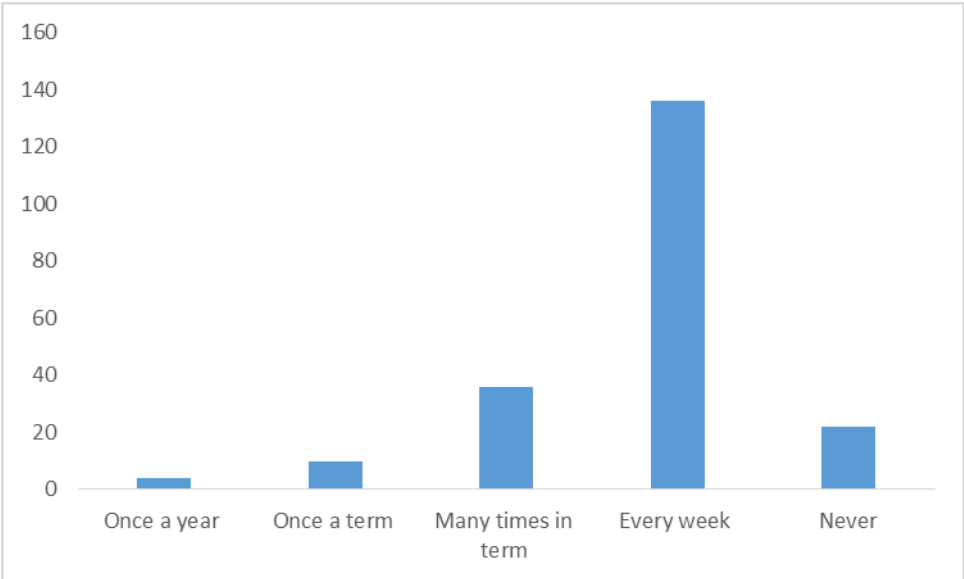
Thus, majority (68.8%) of the pre-tertiary student respondents indicated that the workshops in their institutions were under resourced or do not have the needed tools for practical learning. This situation may be equated to non-availability of workshops. This is because a mere building designated for workshop without equipment does not serve the purpose of a workshop. Indeed, without a well-resourced workshop, it is difficult to imagine how technical and vocational trainees would be equipped with the essential skills of their professions. This particular finding confirms the conclusion reached by George Dzeto that the major challenges facing the TVET sub-sector in Ghana ranges from “equipping trainees with needed skills to placing them where those acquired skills can be put to optimal use ...”⁹ All this largely emanates from the lack of equipment for practical training.

The study clearly shows that the lack of equipment in the workshops affects the regular usage of the facility. Table 4 below suggests that most students in technical/vocational institutions do not utilize their workshops regularly.

Table 4:
Code 10: How often do you use the workshop?

	Frequency	Percent	Valid Percent	Cumulative Percent
Once a year	4	1.9	1.9	1.9
Once a term	10	4.8	4.8	6.7
Many times in a term	36	17.3	17.3	24.0
Every week	136	65.4	65.4	89.4
Never	22	10.6	10.6	100
Total	208	100	100	

How often do you use the workshop?



This data confirms the general thought of the deplorable state of learning facilities in TVET institutions across the country, of which education authorities are aware of. For example, the Director in charge of technical/

⁹ George Kwaku Dzeto, Quality Education for Qualified Workers, *Ghanaian Panel on Economic Development Report*, Fredrick Ebert Stiftung, 2016, p.104.

vocational education at the Ghana Education Service (GES), Augustine G. Ayirezang once bemoaned the deplorable state of TVET in the country. He attributed that to the lack of commitment by relevant stakeholders in the country:

...if government is committed and other organizations and donor partners are committed to TVET then TVET will become the bedrock of any development on industrialization. If the commitment is given in terms of support, financial support and incentives then it is the way to grow TVET and people will turn the other way round from grammar type of education to take TVET programmes. It is the support that is lacking.¹⁰

Similarly, a Commissioner at the NVTI Head Office in Accra, Engineer John Ocran bemoaned the negligence of vocational education by the state resulting in the deplorable facilities in these schools when he asserts:

...You know TVET thrives on the provision or availability of equipment and infrastructure. With equipment, it should not be just any equipment. The equipment should be those that will be relevant to the industry. Our institutions have not been retooled for a very long time. And so a lot of our equipment are either broken down or obsolete and not in good form.¹¹

Indeed, an audit of equipment and tools available for practical training in some of the pre-tertiary institutions by the study confirmed the assertion made by Engineer Ocran. Many of the basic tools required for effective practical teaching and learning were either not available or in bad conditions.

3.1.3 Practical Exposure during Vacation Periods

The study equally sought to find out about the availability of practical sessions for TVET trainees during vacation periods. Generally, it emerged that there is lack of internship or mentorship arrangements for TVET students. In a few instances, when some students got internship with industry, there was lack of effective co-ordination between the TVET institutions and companies offering the industrial attachment opportunities for students. The need for a strong connection between industry and training institutions needs no emphasis. It is one of the key requirements for effective technical/vocational education. The absence of such formidable link-ups reduces TVET to just a theory-based education. This does not only mitigate against TVET living up to its mandate but it also betrays the laudable objectives of TVET; to accelerate the rapid industrialization of the country. Table 5 sums up the students' views on the question on what TVET students do during vacation:

Table 5:

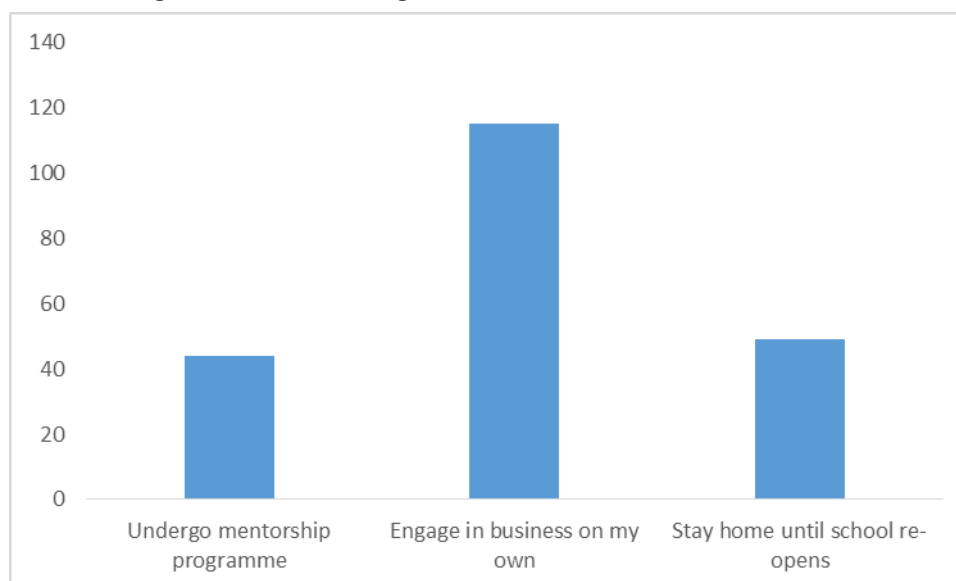
Code 12: Which of the following do you do during vacation?

	Frequency	Percent	Valid Percent	Cumulative Percent
Undergo mentorship programme	44	21.2	21.2	21.2
Engage in business on my own	115	55.3	55.3	76.4
Stay home until school reopens	49	23.6	23.6	100
Total	208	100	100	

¹⁰ Interview with Mr. Augustine G. Ayirezang, Director in-charge of Technical/Vocational Education at the Ghana Education Service (GES) Headquarters, Accra on 15th August, 2018 at the GES Headquarters, Accra, Ghana.

¹¹ Interview with Engineer John Ocran, a commissioner in charge of testing at NVTI Head Office held on 20th March, 2019 at his office, Accra, Ghana.

Which of the following do you do during vacation?



It can be seen from Table 5 that about 79% of total respondents do not engage in any internship programme during their vacation. Only 21% of the respondents indicated that they undertake internship during vacation. This implies that students are not given adequate opportunities to gain essential practical training for their chosen professions. Due to the lack of functional workshop as discussed earlier, students who have not received industrial attachment, are likely to complete their training with inadequate or weak practical knowledge and industrial experience. This situation can be avoided if efforts are made to ensure that there is effective collaboration between TVET institutions and the industry. Expounding on global best practices on TVET in relation to collaboration between the industry and TVET institutions, the Director of Lakeside Estate, Mr. Salah Kweku Kalmoni states:

There is a saying that if you want to be the best, then you must follow the best. I always cite the example of Germany. Germany has the best Technical and Vocational training system in the world where they merge the technical institute training with mentorship with a company. Therefore, before you are accepted at the technical institute you must sign a mentorship programme with a company. In that case the person is 90% guaranteed a job if he/she graduates from school. So everybody have 90% of employment rate unlike Ghana where you probably have 90% rate of unemployment of our academically-trained graduates¹²

Mr. Kalmoni adds:

The system is such that, the company you sign mentorship contract with also makes inputs into what you study in school. So right from the start, you study what is relevant to industry. It is like “If you want to work with me, you must study what I want” and so there is that immediate feedback between the technical institute and the company. This way of training artisans can be replicated in Ghana. The institutes must work hand-in-hand with the industry...¹³

¹² Salah Kweku Kalmoni, The Role of Practical Technical/Vocational Skills in Ghana’s Industrialization Drive, *The Baraka (a BPI Annual Development Magazine)*, Vol.3, 2018, p. 30.

¹³ Ibid

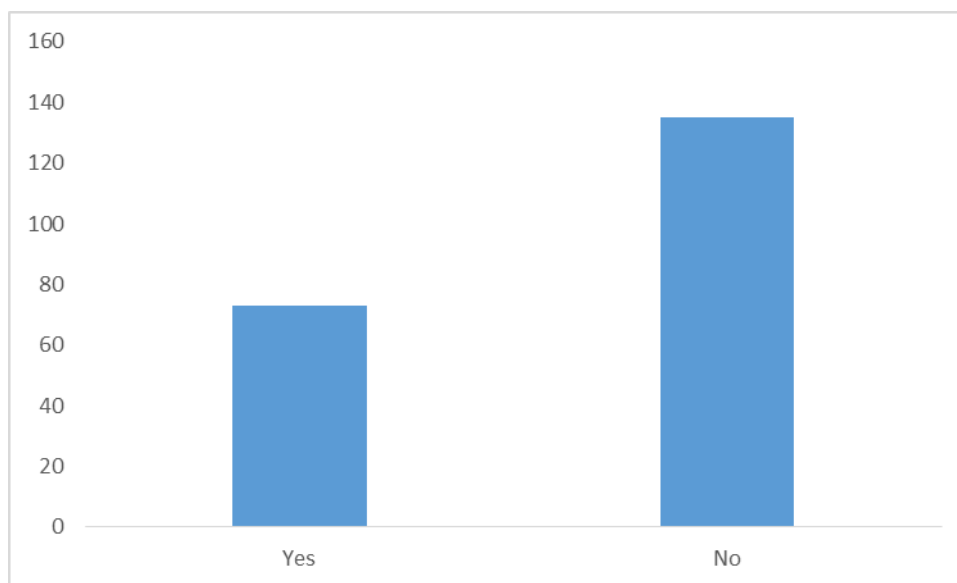
It is in the light of Kalmoni's assertion above that many development scholars argue that TVET institutions must change their modus operandi in order to meet the desired expectations. Reddan and Harrison are of the view that TVET institutions can be responsive to the needs of the industry only when the leadership of the institutions constantly review the programmes they run.¹⁴ This will enable them to engage the major stakeholders including the industry on how to make TVET relevant to the developmental needs of the citizenry and the country as a whole.

Additionally, the study found that, majority of the students do not have personal equipment for practice during vacation. Table 6 below gives details on that:

Table 6:
Code 13: Do you have equipment that you use for practice at home?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	73	35.1	35.1	35.1
No	135	64.9	64.9	100
Total	208	100	100	

Do you have equipment that you use for practice at home?



The data clearly indicate that almost 65 percent of sampled students do not have personal equipment to work with. This adds to the myriad of challenges that tend to render TVET and its products ineffective in Ghana. It is important that trainees of TVET have their own tools for regular practice in addition to well-equipped workshops in various institutions. This will ensure that the trainees of the TVET gain the essential practical skills. It is important to state that the procurement of the relevant equipment for TVET students is not only the sole responsibility of the government. Other stakeholders such as parents and corporate entities ought to help resource students to facilitate effective training in this regard. Everybody stands to gain from the economic boost that comes with effective technical and vocational education. Hence, stakeholders including the government, the industry and parents as well as civil society must work together to enhance the quality of

¹⁴ Gregory Reddan & Glenn Harrison, Restructuring the Bachelor of Exercise Science Degree to meet industry needs, *Asia-Pacific Journal of Cooperative Education*, 11(1), 2010, 13-25

technical/vocational training for our teeming youth.

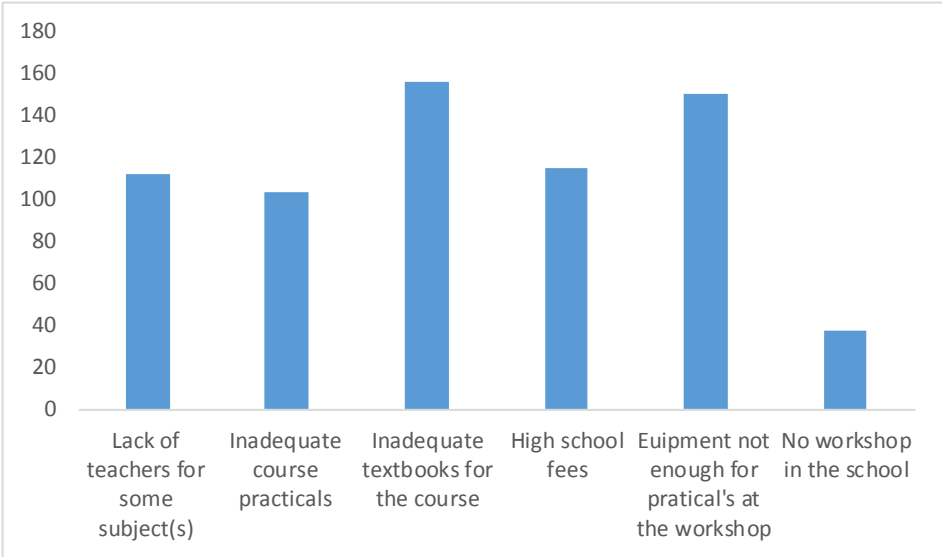
3.1.4 Other Key Challenges Facing TVET in Ghana

The study also sought the views of students on what they considered to be the utmost hindrance to the full realization of their skills training. On top of the check list was the lack of equipment as discussed earlier. The study revealed other equally serious challenges that constitute impediments to TVET. These include inadequate relevant textbooks, lack of qualified teachers and high level of cost for students including school fees. Fortunately, with the introduction of free secondary education which include technical and vocational schools under the GES (even though NVTI schools are yet to be included), it is expected that the challenge of school fees would hopefully be addressed. Table 7 below sums up the responses of the students:

Table 7:
Code 14: Which of these pose challenge to you as a student?

Challenge	Frequency	Percent	Valid Percent
Lack of teachers for some subject(s)	112	53.8	53.8
Inadequate course practicals	103	49.5	49.5
Inadequate textbooks for the course	156	75	75
High school fees	115	55.2	55.2
Equipment not enough for practicals at the workshop	150	72.1	72.1
No workshop in the school	37	17.8	17.8

Which of these pose challenge to you as a student?



It can be deduced from Table 7 above that lack of teachers for some subjects in TVET schools across the country is a major challenge. The variable was checked high with over 53% of respondents affirming this. Considering the fact that there are only a few TVET institutions, less than fifty (50), as compared to more than seven hundred (700) public grammar senior high schools in the country, one would have expected that some priority will be given to TVET schools in terms of training of teachers.

Equally worth noting is the case of inadequate relevant textbooks. Even though TVET ought to be more practically-oriented, its theoretical component is equally important. The theory prepares the grounds for the practical training. It gives raw knowledge which anchors the prescribed practicals. It is therefore important for students to get easy access to the relevant TVET textbooks. This is another TVET related challenge that government needs to address in order to realise the benefits of technical and vocational education in Ghana.

3.2 STATE OF TECHNICAL/VOCATIONAL EDUCATION IN GHANA: VIEWS OF HEADS OF TVET INSTITUTES

Heads of technical and vocational institutes are principal stakeholders in TVET drive in Ghana. They form the core leadership of TVET institutions and are entrusted with the core mandate of training artisans for Ghana’s accelerated development. In view of this, the study sought to sample the views of Heads of technical and vocational across the country on the state of technical/vocational education in Ghana. This section of the report analyzes the data collected from heads of technical/vocational institutes in Ghana.

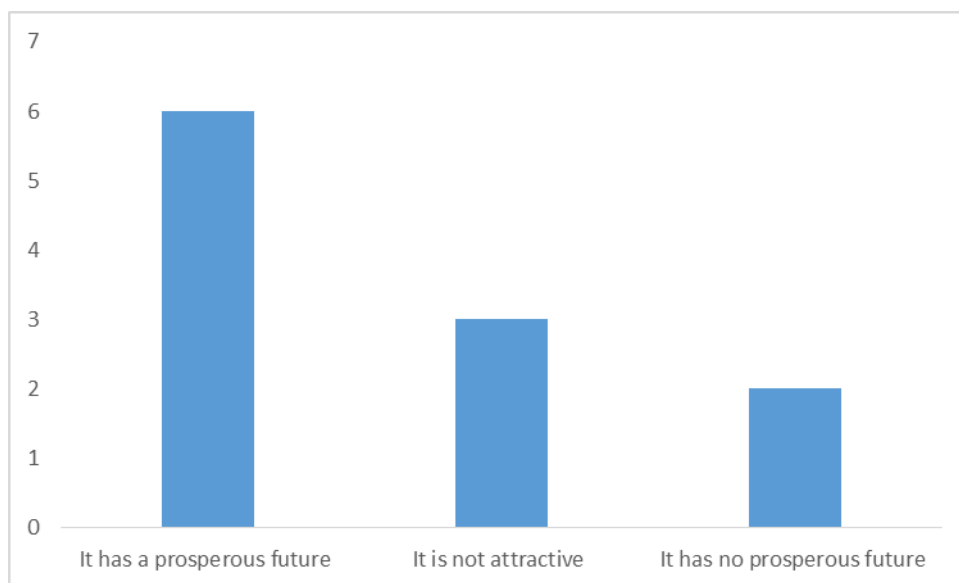
3.2.1 Confidence in Technical/Vocational Education

The critical role of TVET in accelerating the national development agenda is generally appreciated by the leadership of TVET institutes. However, heads of these institutes are concerned about the current state of TVET in the country and its prospects. Table 8 below summarizes the views of the heads of TVET on the state of TVET in Ghana.

Table 8:

Code 13: What is your view on the state of technical and vocational education in Ghana?

	Frequency	Percent	Valid Percent	Cumulative Percent
It has a prosperous future	6	54.5	54.5	54.5
It is not attractive	3	27.3	27.3	81.8
It has no prosperous future	2	18.2	18.2	100
Total	11	100	100	



As it can be seen in the Table 8, the study found that 54.5% of respondent heads believe that the future is bright for TVET, provided stakeholders would be fully committed to it. Inasmuch as they envisaged a transformed technical/vocational education in Ghana, they have their doubt on the country’s readiness and willingness to commit fully to the cause of TVET. On the other hand, some heads of TVET institutes appear to have given up completely considering the various challenges at stake. This is evident from Table 8 whereby 45.5% of the heads of technical/vocational schools believe that the current state of TVET in the country makes it unattractive and provides no hope for the future; and that the TVET situation in the country at the moment does not entice students to enroll. Clearly, the observations made by the heads of TVET in Ghana are not different from those advanced forth by the students as discussed earlier.

3.2.2 Practical Attachments

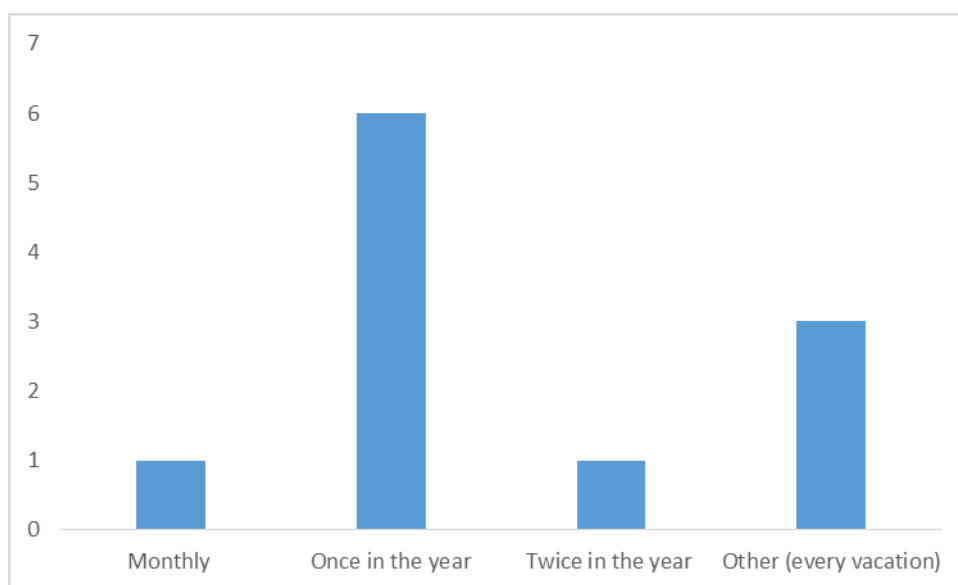
Despite the suggested need for 70 percent industrial training in the TVET programme, heads of TVET schools confirmed the response provided by students that there was insufficient exposure of students to practical knowledge in the form of industrial attachments. As can be seen from Table 9 below, majority of the heads of the schools who took part in the study representing 54.5 % indicated that students undertook industrial training once annually. Indeed, this is woefully inadequate; it cannot offer the trainees the requisite industrial skills that can prepare them for the labour market.

Table 9:

Code 15: How often do the students go for industrial attachment?

	Frequency	Percent	Valid Percent	Cumulative Percent
Monthly	1	9.1	9.1	9.1
Once in the year	6	54.5	54.5	63.6
Twice in the year	1	9.1	9.1	72.7
Other (every vacation)	3	27.3	27.3	100
Total	11	100	100	

How often do the students go for industrial attachment?



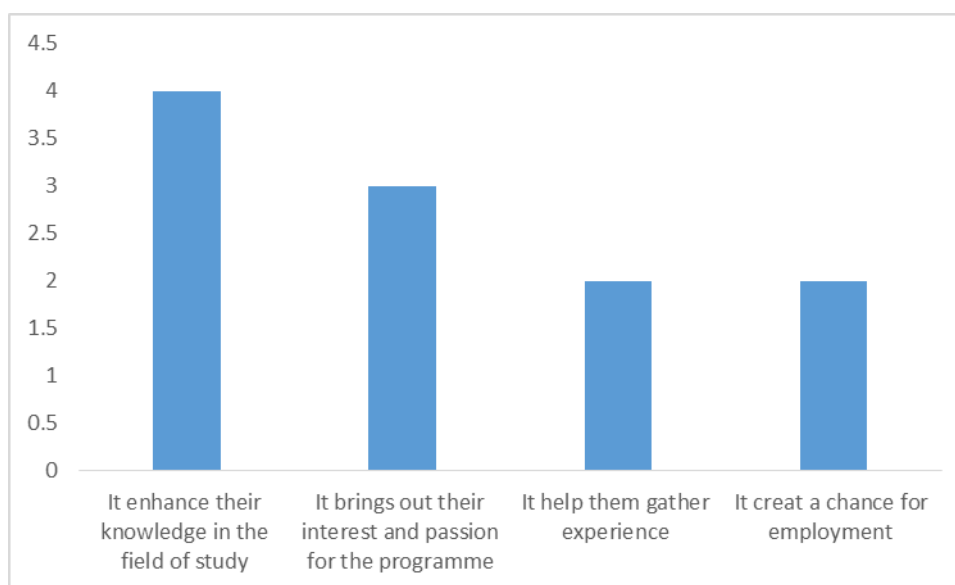
However, all the heads of the TVET institutes agree that industrial mentorship is indispensable, given its numerous benefits. When asked about the benefits of industrial mentorship for TVET trainees, the heads

confirmed the relevance of industrial mentorship programme and checked all the relevant variables related to that question. They pointed out that mentorship programme enhances students’ theoretical knowledge and help the trainees to gain relevant experience and skills. They also held that industrial mentorship creates useful network with the industry for employment opportunities. Furthermore, they agree that industrial attachment stimulates and sustains trainees’ interest and passion. Table 10 below sums up the thoughts of the heads of TVET institutes on the benefits of industrial mentorship for students:

Table 10:
Code 17: Which of the following do you think students in mentorship programmes stand to gain most?

	Frequency	Percent	Valid Percent	Cumulative Percent
It enhance their knowledge in the field of study	4	36.4	36.4	36.4
It brings out their interest and passion for the programme	3	27.3	27.3	63.6
It helps them gather experience	2	18.2	18.2	81.8
It creates a chance for employment	2	18.2	18.2	100
Total	11	100	100	

Which of the following do you think students in mentorship programmes stand to gain most?



3.2.3 Pillars for improved technical education in Ghana

Heads of schools also shared their views on what they believe is the way forward for improving TVET education in the country. Key among the issues they raised include putting up infrastructure with modern workshop facilities, providing in-service training for teachers to meet the required standards as well as motivating them to give out their best. They also emphasized the need for the 70 % practical component to ensure effective TVET. Charles Abban and James Quarshie have hitherto observed that the orientation for the need to increase practical training in TVET institutions in Africa was growing. They held that this will render TVET more effective and attractive across the continent.¹⁵ Additionally, the respondents emphasized the need for additional public awareness on the importance of technical/vocational education in order to make it attractive to young people.

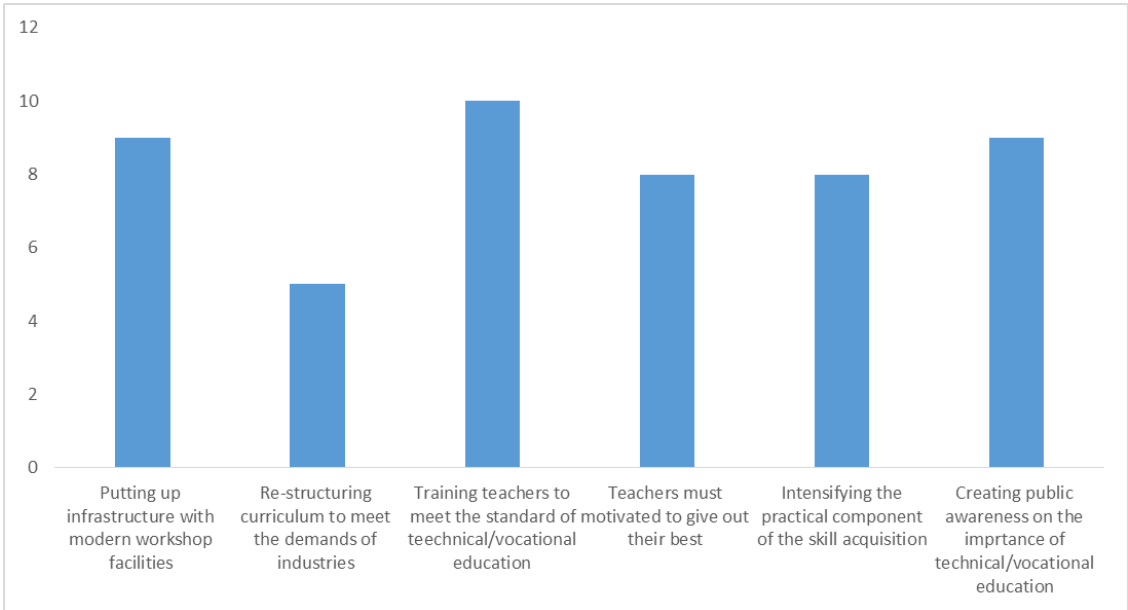
¹⁵ Charles K, Abban and James O. Quarshie, Integrated skills training for self-employment: The case of Ghana. In Grierson, J.P. & Mckenzie I. (Eds): *Training for self-employment through vocational training institutions*, ILO International Training Centre, 1996.

The heads of TVET schools also stressed that the current curriculum must be overhauled in order to meet the new demands of the industry. The suggestion for reviewing TVET curriculum to meet current trends in the labour market is not out of place. In 2007, member countries of the African Union in their final draft TVET strategy document, entitled “Strategy to revitalize technical and vocational education and training (TVET) in Africa” upheld TVET’s viability of solidly preparing young people towards the world of work and giving them employable skills.¹⁶ This will only materialize when the needed commitment towards TVET in terms of provision of resources and dedicated leadership are applied. Table 11 below gives the summation of responses from the heads of pre-tertiary TVET institutions on these issues:

Table 11:
Code 19: In your view which of these when done can revamp technical and vocational education in Ghana

	Frequency	Percent
Putting up infrastructure with modern workshop facilities	9	81.8
Re-structuring curriculum to meet the demands of industries	5	45.5
Training teachers to meet the standard of technical/vocational education	10	90.9
Teachers must be motivated to give out their best	8	72.7
Intensifying the practical component of skill acquisition	8	72.7
Creating public awareness on the importance of technical/vocational education	9	81.8
Students should be motivated to pursue TVET education	8	72.7

In your view which of these when done can revamp technical and vocational education in Ghana



¹⁶ African Union, *Strategy to revitalize technical and vocational education and training (TVET) in Africa*: Final Draft. Bureau of the Conference of Ministers of Education of the African Union (COMEDAF II+), 2007.

3.3 STATE OF TECHNICAL/VOCATIONAL EDUCATION IN GHANA: VIEWS OF STUDENTS OF TECHNICAL UNIVERSITIES

The third category of respondents for this study was the studentship of technical universities (formerly known as polytechnics) in Ghana. Technical universities were established essentially to prepare the middle level man-power needs of the country especially in the area of production. This mandate necessitates a keen focus on skills training including constant re-tooling and updating of practical knowledge imparted to trainees. Hence by default, they are deemed as higher technical/vocational skill training institutions for students who graduate from the vocational and technical pre-tertiary institutes. However, it appears over the years the technical universities have drifted from this core mandate: they have become more theoretical than practical in the delivery of knowledge. They have equally ventured into other areas of knowledge acquisition that are purely theoretical in nature. The study thus sought students' views on the state of practical component in their training at the universities; including the availability and state of relevant workshops. The research also asked about the availability of effective industrial mentorship programme; the availability of personal equipment for training; and suggestions on how to improve technical/vocational training in the universities.

3.3.1 Practical Component of Technical/Vocational education in Technical Universities

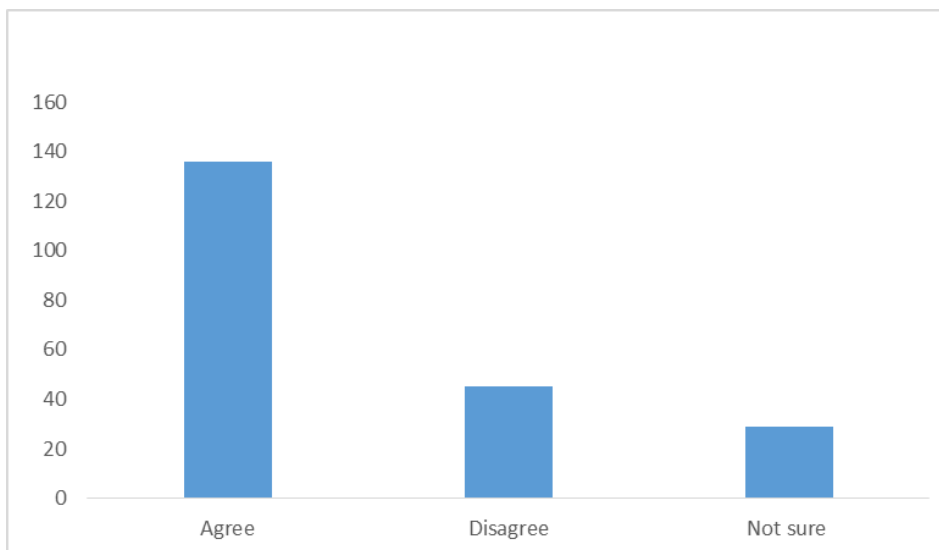
On the state of practical component in the training offered to students at technical universities, the study reveals that tuition at the technical universities is largely theoretical. Table 12 below gives a summary of the state of practical training in TVET programmes of the sampled technical universities:

Table 12:

Code 3: Technical/Vocational education at the university is mostly focused on theory rather than practicals?

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	136	64.8	64.8	64.8
Disagree	45	21.4	21.4	86.2
Not sure	29	13.8	13.8	100
Total	210	100	100	

Technical/Vocational education at the university is mostly focused on theory rather than practicals?



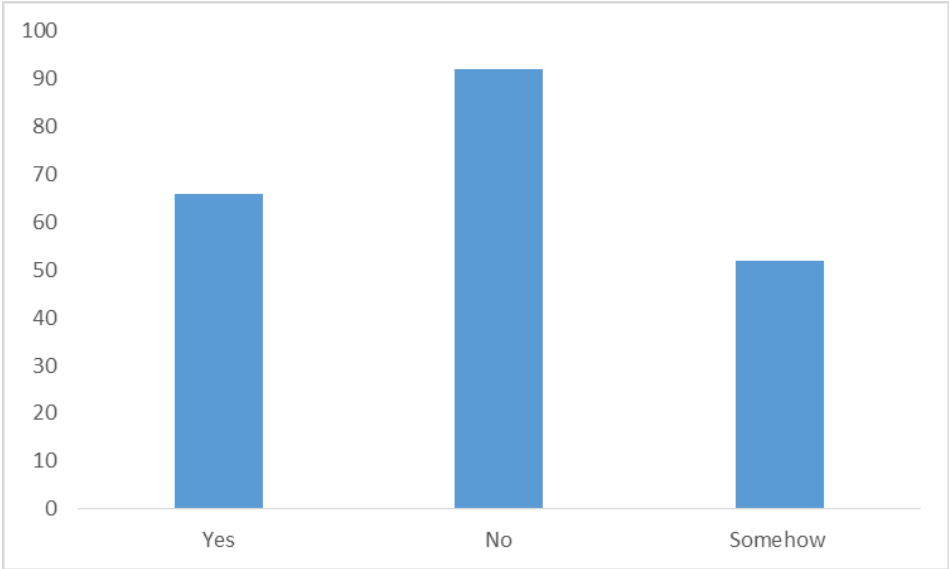
From Table 12, only 21% of students' respondents disagreed that the technical universities have become more theory-focused than practicals. Exactly 64.8% of the respondents agree that technical universities have become more theoretical in their teaching approach. This is discouraging especially at a time when other academic higher educational institutions including universities are striving to incorporate more practical training into their curriculum and teaching approach.

Again, when asked whether their various departments have workshops for practical training, most of the respondents indicated that they do not have well-equipped workshops for effective practical training. Table 13 below sums up the workshop situation at the technical universities:

Table 13:
Code 4: Does your department has a well-equipped workshop?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	66	31.4	31.4	31.4
No	92	43.8	43.8	75.2
Somehow	52	24.8	24.8	100
Total	210	100	100	

Does your department has a well-equipped workshop?



In fact, judging from the data in Table 12 where students affirm that teaching and learning of TVET programmes at the technical universities are mostly theoretical, it is not surprising that majority of the respondents 68.6% (as found in Table 13) stated that their departments do not have well-equipped workshops for them to receive effective practical training.

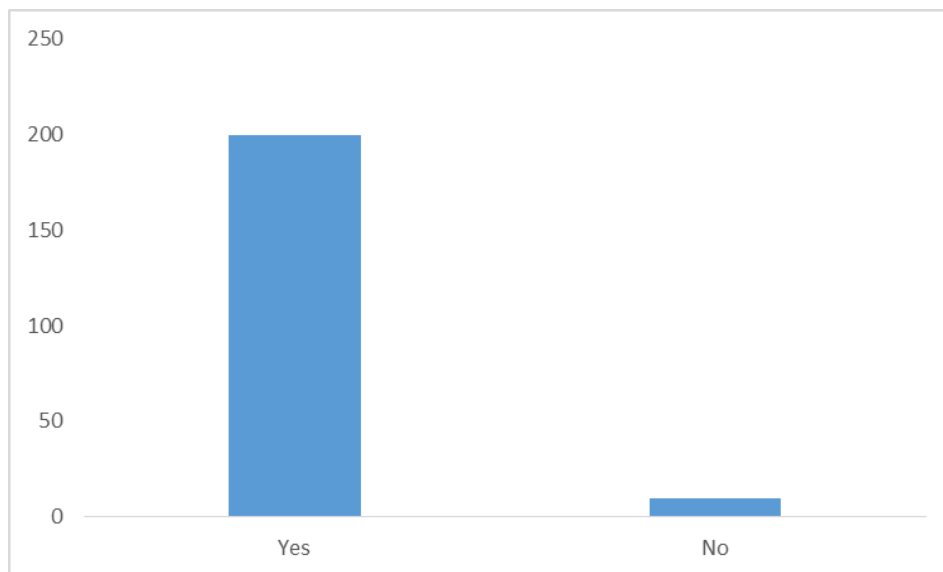
Subsequently in Table 14, an overwhelming majority of the respondents (95.2 percent) bemoaned the insufficient training they receive in the course of their programme and wished that practical training will be boosted in the curriculum so that they can be adequately prepared for their respective industries. Below is the detail in Table 14:

Table 14:

Code 5: Do you think technical university education should be more practical as it is now?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	200	95.2	95.2	95.2
No	10	4.8	4.8	100
Total	210	100	100	

Do you think technical university education should be more practical as it is now?



3.3.2 Industrial Mentorship and Student Competence

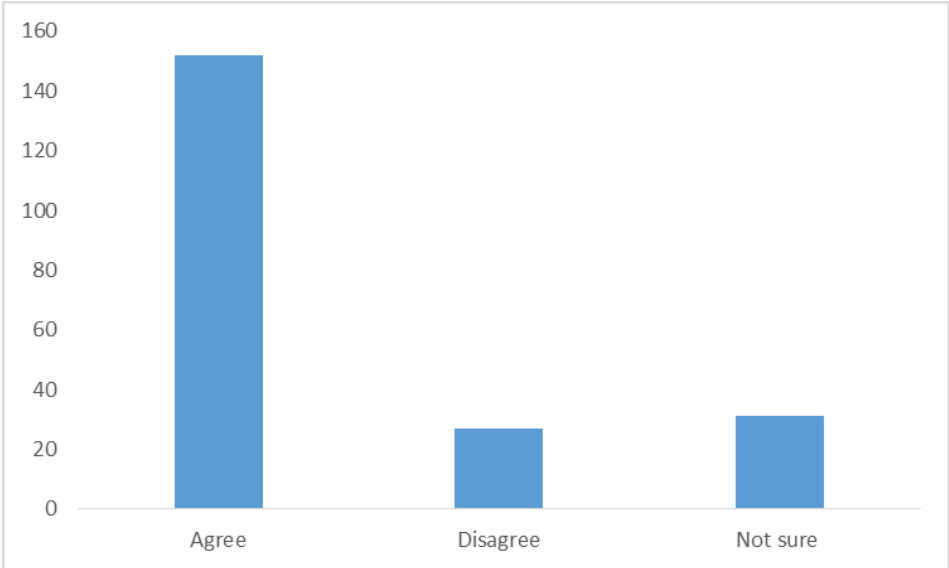
The critical role industrial attachment or mentorship play in preparing students in their education has been highlighted earlier. As seen in Table 15 below, majority of the respondents, 72.4% clearly appreciate the role of industrial attachment in their training and skills acquisition. Strangely about 14.8% of the respondents did not seem to know exactly how this directly affect their knowledge acquisition even though they appreciate its relevance.

Table 15:

Code 6: Regular industry mentorship for students will prepare them well for job market?

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	152	72.4	72.4	72.4
Disagree	27	12.9	12.9	85.2
Not sure	31	14.8	14.8	100
Total	210	100	100	

Regular industry mentorship for students will prepare them well for job market?

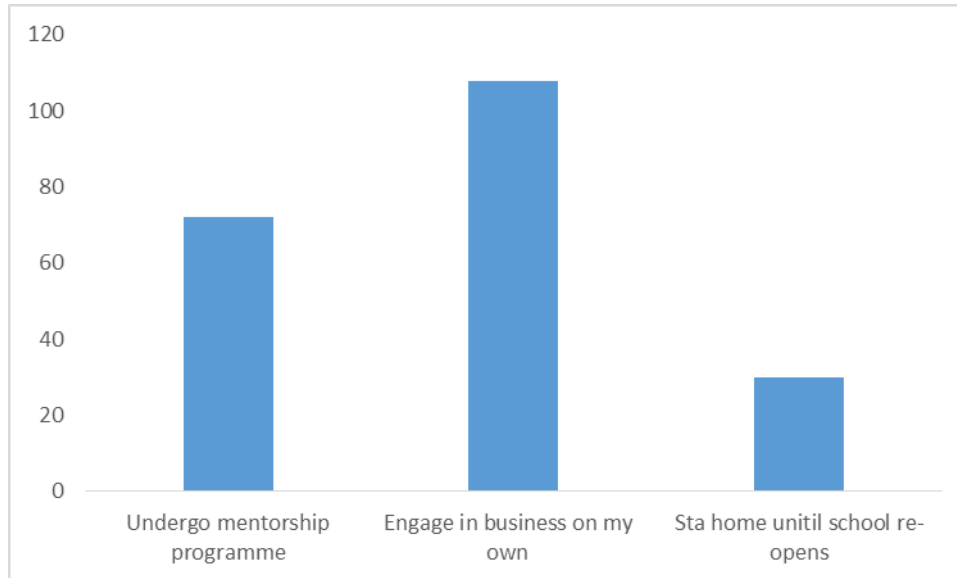


Notwithstanding the critical role industrial attachment plays in TVET, majority of the students/respondents (as found in Table 16) do not receive any mentorship training during the long vacation, a period designated for industrial attachments. This may be due to several factors in view of the fact that the arrangement for internships is deemed as a shared responsibility between the training institution and the student. Nonetheless, the failure of students to embark on industrial attachment and experiential learning derails the quality of their training and tend to have adverse effect on outcomes. It also signals lack of commitment on the part of the leadership of technical universities for this important component of the training and knowledge acquisition. Table 16 sums up the views expressed by the students on this:

Table 16
Code 7: Which of the following do you do during vacation?

	Frequency	Percent	Valid Percent	Cumulative Percent
Undergo mentorship programme	72	34.3	34.3	34.3
Engage in business on my own	108	51.4	51.4	85.7
Stay home until school reopens	30	14.3	14.3	100
Total	210	100	100	

Which of the following do you do during vacation?



3.3.3 The State of Training in Technical Universities

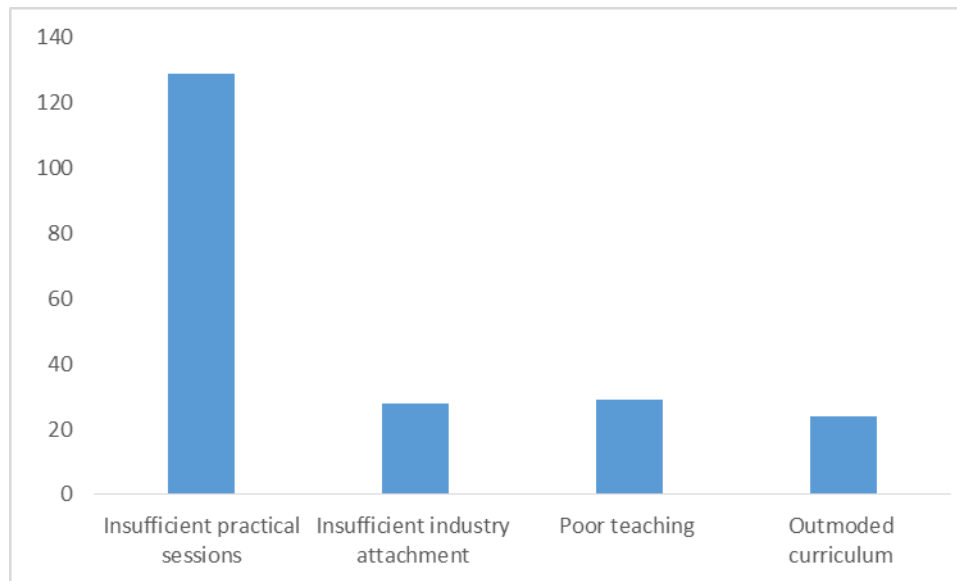
The study also inquired about issues that have immediate impact on effective training of students in technical universities. Majority of the respondents, exactly 61.4% identified insufficient practical sessions as a key issue. This implies that the workshop facilities do not exist at all or they are in deplorable states, including the non-availability of useful equipments. Other issues raised by the respondents include poor teaching, outmoded curriculum and insufficient industrial exposure. From the data in table 17, it is evident that insufficient practical sessions was considered by the students as the major factor inhibiting the effective training in their respective schools.

Table 17:

Code 9: What do you consider to be lacking the most key factor affecting the training you are receiving at university?

	Frequency	Percent	Valid Percent	Cumulative Percent
Insufficient practical sections	129	61.4	61.4	61.4
Insufficient industrial attachment	28	13.3	13.3	74.8
Poor teaching	29	13.8	13.8	88.6
Outmoded curriculum	24	11.4	11.4	100
Total	210	100	100	

What do you consider to be lacking the most key factor affecting the training you are receiving at university?



3.3.4 Student Views on How to Improve Technical Education in Ghana

The study sought the views of students towards improving technical/vocation education in Ghana. Majority of the respondents (60.5%) indicated that there is actually a low public awareness and recognition for TVET; and suggested that there is the need to create a national awareness programme to educate the public on the relevance of TVET. This will boost the image of TVET and entice students to opt for TVET programmes at the technical universities. It will also compel policy makers to prioritize TVET in Ghana. Again, a significant number of the respondents upheld that there is equally the need to re-structure the curriculum to meet modern demands and that of industry. This reflects Reddan and Harrison's suggestion that TVET institutions can only address the needs of the industry by regularly reviewing their programmes.¹⁷

Closely linked to this concern is the need to create avenues and opportunities for lecturers to constantly upgrade and update their knowledge, especially in the area of artisan skills. Considering the practical nature of the training related to TVET, opportunities for constant refresher courses and increased teacher motivation is critical for improving teaching and learning.

Strangely, the respondents did not accord similar consideration to the need for boosting practical components of their training. Meanwhile, it would be recalled from table 17 that 61.4% of the same respondents had identified that as one of the issues that impact negatively on their training. Indeed, only 16.7% of them held that putting up infrastructure with modern workshop facilities would improve the state of technical/vocational education in Ghana. It is difficult to account for this inconsistency. It appears, however that as far as the responses are concerned, the existence of workshop facilities perhaps is not of utmost priorities in the technical universities relative to the technical and vocational institutes. Perhaps, the main challenges related to the existing workshops and facilities in these institutions have to do with whether they are properly used, adequately resourced and well maintained. Ironically, as noted earlier the respondents appear to be concerned about the dwindling image of TVET programmes rather than the non-availability of the needed infrastructure which influence how they are trained. Table 18 provides additional information on these issues:

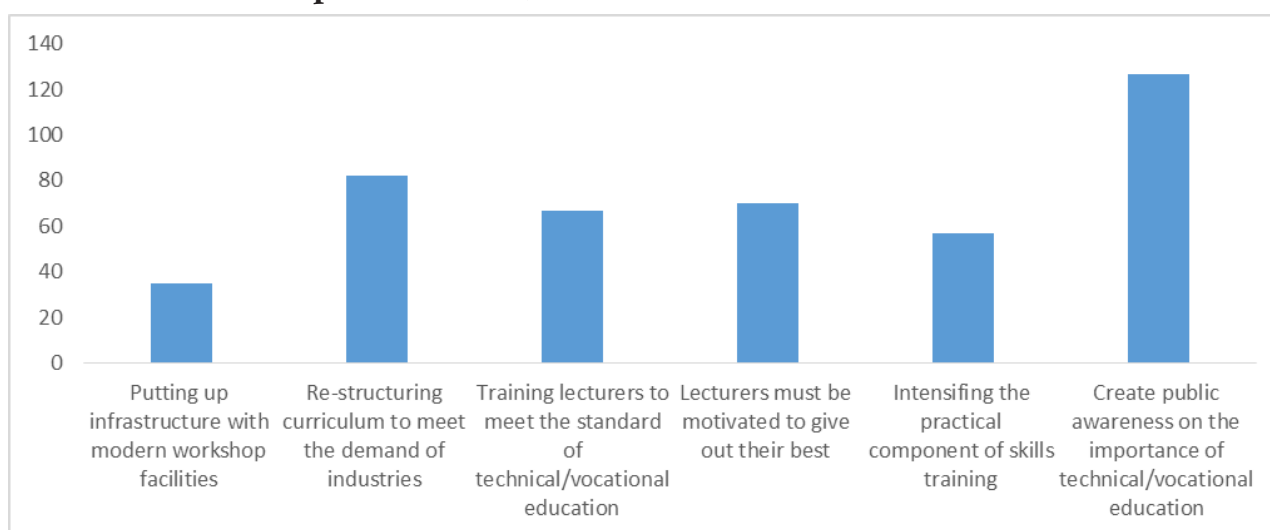
¹⁷ Gregory Reddan & Glenn Harrison, Restructuring the Bachelor of Exercise Science Degree to meet industry needs, *Asia-Pacific Journal of Cooperative Education*, 11(1), 2010, 13-25.

Table 18:

Code: Which of these can improve technical/vocational education in Ghana

	Frequency	Percent
Putting up infrastructure with modern workshop facilities	35	16.7
Re-structuring curriculum to meet the demands of industries	82	39.1
Training lecturers to meet the standard of technical/vocational education	67	31.9
Lecturers must be motivated to give out their best	70	33.3
Intensifying the practical component of the skills acquisition	57	27.2
Creating public awareness on the importance of technical/vocational education	127	60.4

Which of these can improve technical/vocational education in Ghana



3.4 STATE OF TECHNICAL/VOCATIONAL EDUCATION IN GHANA: VIEWS OF HEADS OF TECHNICAL UNIVERSITIES

The study sought the views of heads of technical universities on the general state of technical/vocational education in Ghana and how to improve it. The statutes that established polytechnics (now technical universities), Polytechnic Law 1992, PNDCL 321 (and as amended by Parliamentary Act 745, 2007) assigned it the responsibility of training the middle-level manpower needs of the country. It specifically entrusted them with training and upgrading of skills. The law offered a specific TVET mandate to the polytechnics: they are “to provide opportunities for skills development, applied research and publication of research findings”.¹⁸

The study in this regard conducted interviews with Vice-chancellors (VCs) of the four (4) technical universities in order to gain insight into their views on how to move technical/vocational education forward.

3.4.1 Performance of the Technical Universities on Mandate:

The study revealed that the leadership and management of technical universities are fully aware of the focus and the form of the training they are mandated to provide to their students, thus; applied knowledge for skills development. They emphasized the practical and skill-oriented nature of the programmes they were to offer,

¹⁸ See Polytechnic Law – 1992, PNDCL 321 (and as amended by Parliamentary Act 745, 2007)

but were quick to admit that they have not been able to perform this task satisfactorily. Prof. Smile G. Dzisi, the Vice Chancellor of Koforidua Technical University underscored this:

Technical education training is meant to provide students with a requisite skills practical hands-on training to be able to fit easily into the job market. Therefore, during their education or their time in school they have a lot of practicals in school and they do it in relation with the industry, so that right after school they can be able to work well and fit easily into the job market. When we talk about technical university it is to do this at the highest level, thus, advanced form of providing this technical and vocational education. So it is the same thing but just that the technical university, we are taking to a higher level to sustain practical training, working hand-in-hand with industry and trying to provide students with relevant skills and entrepreneurial skills, to be able to easily setup jobs for themselves or fit into job market easily.¹⁹

On whether they have delivered on their mandate, Prof. Abdulai Salifu Asuro, the Vice Chancellor of Tamale Technical University indicates that they could have done better somehow. In his exact words: “Yes, even though there are challenges, we could have done much better, but we are doing our best under the circumstances.”²⁰

Prof. Dzisi agrees with Prof. Asuro on this. He noted that the then polytechnics were more business centered than science or engineering, since majority of the students usually offered business programmes, contrary to the TVET programs that polytechnics have been mandated to offer.²¹ However, all the respondents believe that the upgrading of the polytechnics into technical universities will help raise the standards and build the confidence of students to pursue skills-based programmes.

3.4.2 Practical Orientation at Technical Universities.

Insufficient quality practical training is one of the key challenges confronting technical education in Ghana. The views of the respondents corroborate those of the students. They indicated that the practical component of the training given to students is not sufficient even though the programmes are supposed to be largely practical. However, they denied the assertion that technical universities have become more theoretical oriented than practical over the years. According to some of the respondents, the practical component of the education or training at technical universities is offered not only by the schools but together with the industry. In connection to this, Prof John Frank Eshun, the Vice Chancellor of Takoradi Technical University asserts: “There is a general education, traditional universities do a lot of theory, but we do practical and theory. The theory is 40% while the practical is 60%”²²

Again, the Registrar of Cape Coast Technical University, Mr. Martin Crentsil had this to say:

Technical education is not a theoretical discipline but practicals which students learn, they should have a feel of whatever they have been taught in the classrooms and fuse with theory and practice so whatever is been taught in the class is how the industry too work on so they understand what they are been taught in class.²³

¹⁹ Interview with Prof. Smile Gavua Dzisi, the Vice Chancellor of Koforidua Technical University on 3rd October, 2018 at Koforidua.

²⁰ Interview with Prof. Abdulai Salifu Asuro, Vice Chancellor of Tamale Technical University on 27th Nov. 2018 at Tamale.

²¹ Op.cit.

²² Interview with Prof John Frank Eshun, Vice Chancellor of Takoradi Technical University on 4th December, 2018 at Takoradi.

²³ Interview with Mr. Martin Crentsil the Registrar of Cape Coast Technical University on 30th Nov, 2018 at Cape Coast

It was also revealing that the technical universities had good relationships and close collaborations with the industry. This has made it possible for the industry to assist in providing practical training to students. This is very useful despite the fact that the industry are only able to cater for a limited number of students. The slots offered are woefully inadequate and therefore full-scale practical training of students has not been possible over the years, due to resource constraints. The VC of Koforidua Technical University had this to say: “We are working closely with the industry, sometimes we develop our curriculum with the industry, I think most of us we have faculty advisory boards from the industry that help us in the curriculum development”²⁴ She elaborate further:

We have a close collaboration with the executives of Association of Ghana Industries (AGI) especially those in the Volta and Eastern regions. We have good collaboration with them, so they help us to match up with the industry, without close collaboration we can never achieve this one. In some way also, we have MOU with quite a number of industries so they could reserve some places for our students²⁵

This cordial relationship between the technical universities and the industry is a key opportunity that could be consolidated to enrich and broaden the training of students. Policy makers should focus on measures that can boost the capacity of the industry so that they can accept more students for industrial attachments.

3.4.3 Key challenges confronting technical/vocational education in Ghana

Respondents identified key challenges facing technical/vocational training at the higher level. These include issues such as the inability of the industry to accept more students for industrial exposure, absence of well-furnished laboratories and workshops/training facilities in the schools, and lack of motivation which does not attract qualified teachers and experienced instructors from the industry. The VC of Takoradi Technical University had this to say: ²⁶

The hindrances are the industries, they are not prepared to open their facilities for technical universities to use. When you go elsewhere, the Government has signed policies with industries. Therefore, it is mandatory for the industries to take students for internships, because we train them for industries. Sometimes, there are students who want to do their internships but there are no places for them to do it. I believe the government should sit down with the industries and maybe propose tax exemption to industries that are ready to accept a certain number of students for internship. This will motivate the industries to take more students for industrial training.

This view is supported by the Registrar of Cape Coast Technical University who said:

The missing link is motivation for industries to accept students, because the Ghanaian industries shy away from the students, hence do not have a feel of what really goes on in the industries ²⁷

²⁴ Interview with Prof. Smile Gavua Dzisi, the Vice Chancellor of Koforidua Technical University on 3rd October, 2018 at Koforidua

²⁵ Ibid.

²⁶ Interview with Mr. Martin Crentsil the Registrar of Cape Coast Technical University on 30th November, 2018 at Cape Coast

²⁷ Interview with Mr. Martin Crentsil the Registrar of Cape Coast Technical University on 30th November, 2018 at Cape Coast

On the absence of well-furnished laboratories, the VC of Koforidua Technical University had this to say:

One of the key challenges is laboratories because if you want equip students with practical skills, you want them to familiarize themselves with the appropriate technology and the machinery and state of the art devices at the job market, and then they must have experience with that in the school in the technical university before going. We have a few labs, we need the state of the art labs for almost all the courses so that they can have adequate practical skills²⁸

The other key hindrances to improving technical education discussed by the respondents is the relatively poorer condition of service to attract qualified teachers and experienced instructors from the industry. In line with this, the VC of Tamale Technical University states:

We need lecturers from the industries but most of them prefer working in the industry. You know yourself how much they pay them already, so the payment is another thing, if it is well attractive and they pay the lecturers well, I think we will be able to retain them. So we are trying to send some of the lecturers also to the job market to learn some of the practical component of the various courses²⁹

3.4.4 Improving TVET in Technical Universities

Respondents identified areas that needs to be addressed in order to ensure an improved hand-based skills training especially at the higher level. The views are summarized as follows:

- § The country should begin a campaign for creating mass awareness and re-orientation of the youth right from the basic schools about the importance of technical/vocational education.
- § Government should provide incentives like tax reliefs to companies who are ready and willing to offer training services to students. It must also prepare and implement policy directives that would make it mandatory for industries to provide training to students.
- § Government should make technical universities a top priority and accord it a recognition similar to the traditional universities by considering very attractive remuneration and incentives for teachers and instructors; building state of the art training facilities in the TVET institutions of higher learning.

3.5 STATE OF TECHNICAL/VOCATIONAL EDUCATION IN GHANA: VIEWS OF THE INDUSTRY

The study finally sought the opinion of the industry on the state of TVET in the country including how industry could contribute towards rejuvenating technical and vocational education in Ghana.

3.5.1 Industry Support for Student Internship

The study inquired about the level of involvement of the industry in TVET delivery in the country especially with regards to support for practical training. The overwhelming opinion from the industry is that they have been providing internship to TVET trainees. Indeed, 83 percent of the industry respondents said they

²⁸ Op.cit.

²⁹ Interview with Prof. Abdulai Salifu Asuro, Vice Chancellor of Tamale Technical University on 27th Nov. 2018 at Tamale.

regularly receive students from various institutions for internship. Tables 19 and 20 reflect the industry's response to the question of internship:

Table 19:

Code 11: Do you receive students from the technical/vocational institutes for internship?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	10	83.3	83.3	83.3
No	2	16.7	16.7	100
Total	12	100	100	

Do you receive students from the technical/vocational institutes for internship?

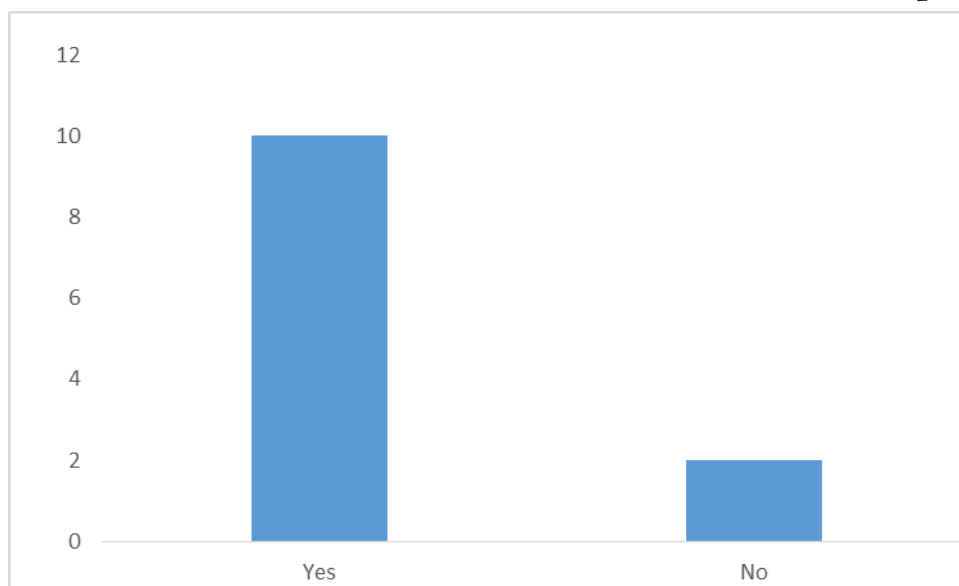
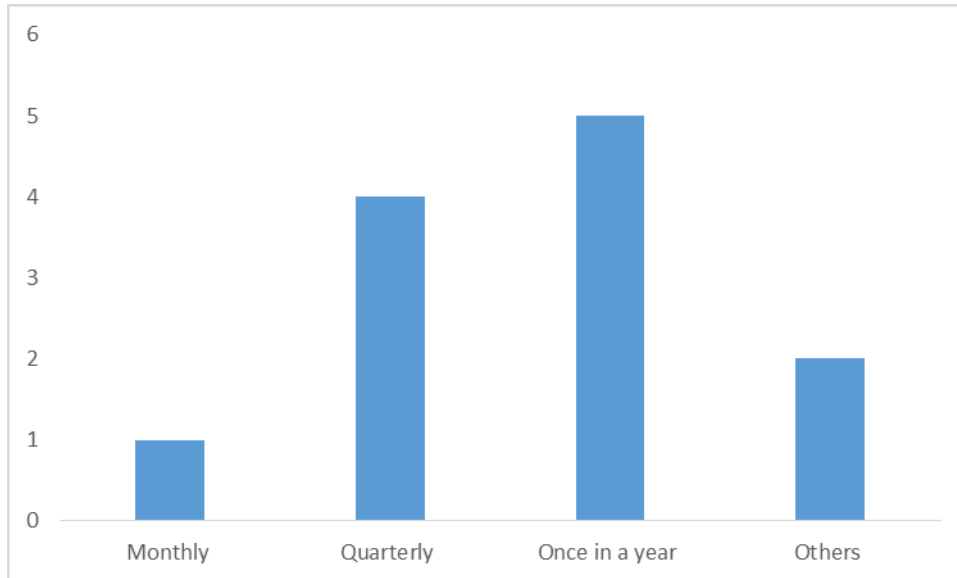


Table 20

Code 12: If yes how often in a period of time?

	Frequency	Percent	Valid Percent	Cumulative Percent
Monthly	1	8.3	8.3	8.3
Quarterly	4	33.3	33.3	41.7
Once in a year	5	41.7	41.7	83.3
Others	2	16.7	16.7	100
Total	12	100	100	

If yes how often in a period of time?



3.5.2 Performance of TVET Graduates at the World of Work

The interaction with the industry also revealed that TVET students who do not get industrial training while in school are not able to perform when they get to the field. About 67% of the industry leaders interviewed maintained that without further training, students from TVET institutions are usually unable to perform. This is the crux of the TVET challenges, and per the view shared by the industry, it emanates from the lack of adequate industrial exposure. As discussed earlier the need for effective school-industry collaboration in terms of practical training cannot be overemphasized. Tables 21 and 22 give a summary of the situation:

Table 21

Code 21: Without further training, students from the TVET institutions are able to perform task on the field

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	8	66.7	66.7	66.7
Somehow	4	33.3	33.3	100
Total	12	100	100	

Without further training, students from the TVET institutions are able to perform task on the field

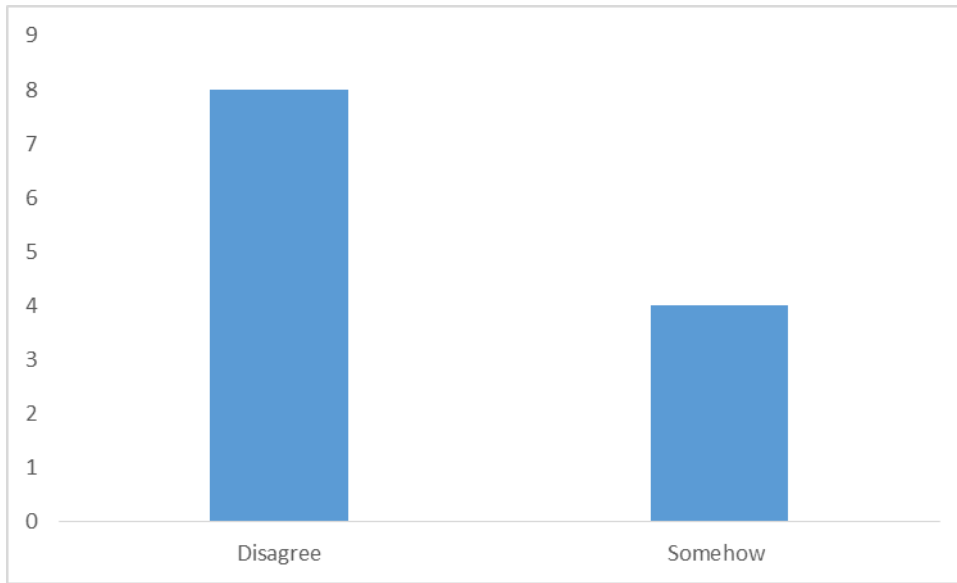
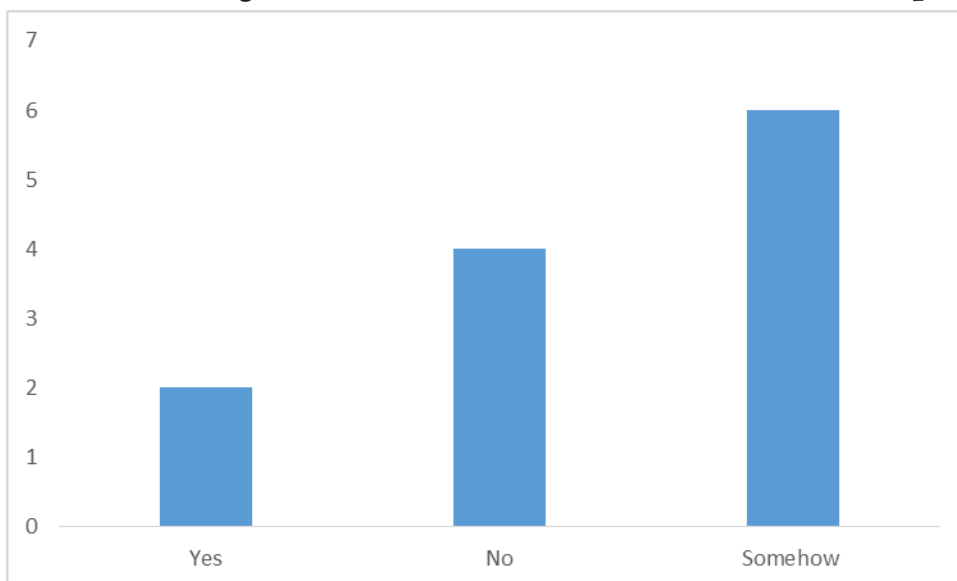


Table 22:

Code 14: In your own assessment, are graduates from technical/vocational schools adequately trained?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	2	16.7	16.7	16.7
No	4	33.3	33.3	50.0
Somehow	6	50.0	50.0	100
Total	12	100	100	

In your own assessment, are graduates from technical/vocational schools adequately trained?



3.5.3 Industry Suggestions towards Improving TVET in Ghana

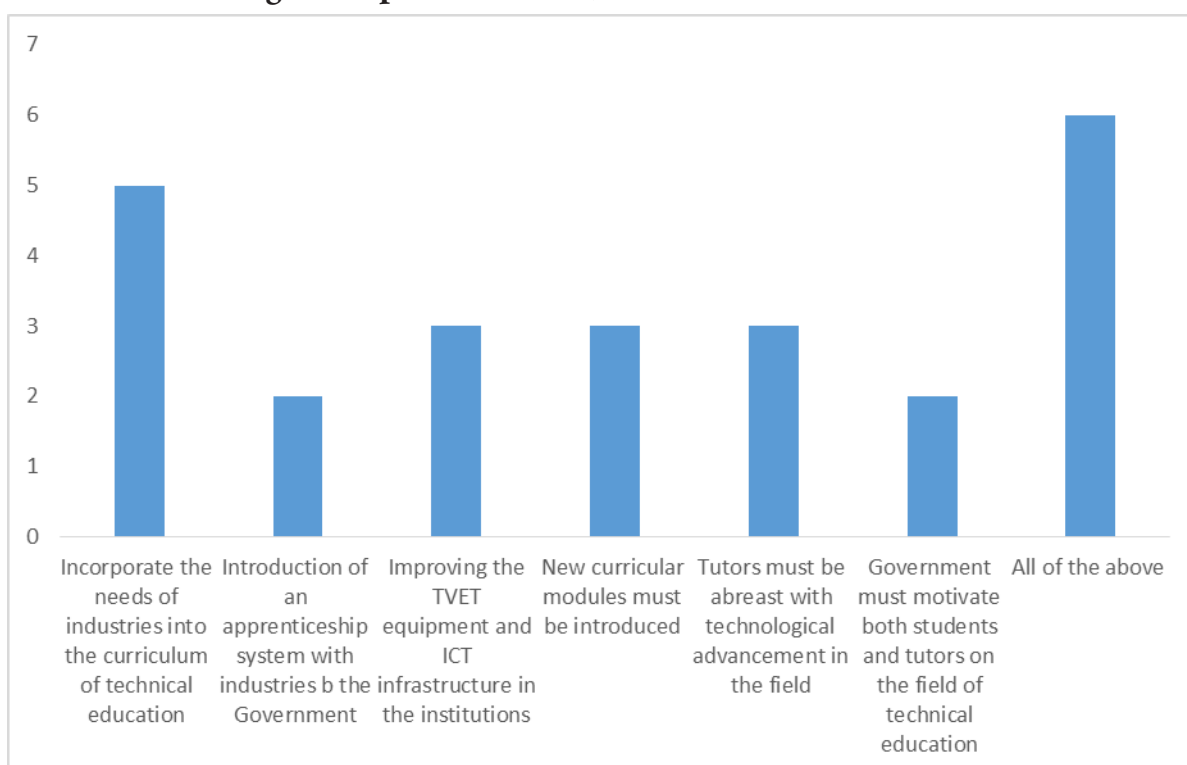
The study also sought the opinion of the industry on how to boost TVET delivery in Ghana. This yielded useful suggestions. However, majority of the respondents echoed the need for the TVET institutions to incorporate the expectations of the industry in the design and delivery of their curriculum across all levels. Table 23 below details the expectations of the industry in relation to effective delivery of TVET in the country:

Table 23

Code 15: Which of the following can improve technical/vocational education in Ghana?

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Incorporate the needs of industries into the curriculum of technical education	5	20.8	20.8	20.8
Introduction of an apprenticeship system with industries, by the government	2	8.3	8.3	29.2
Improving the TVET equipment and ICT infrastructure in the institutions	3	12.5	12.5	41.7
New curricular modules must be introduced	3	12.5	12.5	54.2
Tutors must be abreast with technological advancement in the field	3	12.5	12.5	66.7
Government must motivate both students and tutors on the field of technical education	2	8.3	8.3	75.0
All of the above	6	25.0	25.0	100
Total	24	100	100	

Which of the following can improve technical/vocational education in Ghana?



3.5.4 Below is the collation of the suggestions made by respondent industry players on improving technical/vocational education in Ghana

1. Training students on field experience without limiting them to only school workshop training.
2. Intensive Government support and investment for technical and vocational training.
3. Strong partnership with internal and international institutions to deepen students' knowledge.
4. Incorporating on-field training into the total assessment of the students.
5. Effective collaboration between heads of TVET and resource persons for mentoring students when they are on attachment or internships.
6. Employing skilled and proficient teachers in the TVET institutions.
7. Regular review of TVET programs to ensure that they are relevant and are in line with modern trends and practice in the industry.
8. Newly introduced programs must be informed by prevailing demands in the labour markets.

4

KEY FINDINGS

The following are the six key findings discernible from the data analysis in chapter 3:

- 4.1 Technical/Vocational Institutions in Ghana are not well resourced and are therefore struggling to deliver on their mandate.
- 4.2 Technical/Vocational education in Ghana suffers lack of esteem among the youth due to lack of prioritization from policy-makers.
- 4.3 Over the years, Government has not demonstrated appreciable commitment towards technical/vocational education relative to general education in the country.
- 4.4 The Technical universities in Ghana are chiefly drifting from their core mandate of producing hands-on technical expertise required for our national development.
- 4.5 The industry does not have confidence in the quality of the products of the technical/vocational institutions. This is fundamentally due to their inadequate practical exposure.
- 4.6 There is no evidence of concrete and sustained attachment arrangement between TVET institutions and the industry. And this is affecting effective internship which ought to augment classroom work for TVET students.

5

RECOMMENDATIONS

Based on the major findings enumerated above, BPI proffers the following eight (8) key recommendations:

- 5.1 Government must prioritize a practical-focused technical and vocational education, in view of the fact that it is one of the key ingredients for achieving sustainable development. The General education and the technical/ vocational education should be given equal attention if Ghana has to meet its Sustainable Development Goals.
- 5.2 The Government and civil society groups should aim at mounting strategic public education to promote technical and vocational education in Ghana. This will contribute towards changing the negative mind-set of parents and the youth about technical and vocational education and training.
- 5.3 Government and the National Council for Tertiary Education must put in measures to ensure that technical universities focus mainly on their assigned mandate of training and producing artisans and technical experts to contribute to the development of the country.
- 5.4 Technical/Vocational Institutions must be well-resourced with workshops and tools in order to enhance the quality of the graduates they train.
- 5.5 Government must initiate an internship partnership programme with the industry. This will provide TVET students the opportunity to gain practical training and boost their chances of being employed after school.
- 5.6 TVET Regulatory Institutions should give certified recognition to industrial/professional prior-learning for artisans who did not have formal TVET. This will entail having an appropriate structure that ensure that artisans meet certain standards and are licensed to operate and make a career progression to help build their knowledge and confidence in the industry.
- 5.7 Government should incorporate the needs of the industry into the curriculum of technical/vocational education and training. This will make it easy for graduates of TVET to gain employment since the industry will have the needed confidence in them.
- 5.8 In order to expand access to TVET, Government should strengthen partnership with private TVET institutions in the country. This will enhance the availability of TVET in every corner of the country.

6

CONCLUSION

This study set out to investigate the state of technical/vocational education in Ghana and to assess ongoing programmes offered at the technical universities in Ghana and their bearing on the production of a well-resourced and skilled-based human capital generation. It also sought to explore the concerns and expectations of the industry and its expectations from TVET training institutions in the country. Among others, the study found that Technical/Vocational Institutions in Ghana are struggling to deliver on their mandate. As such, the industry lacks confidence in the graduates produced by technical /vocational institutions in the country.

The study recommends among other things that technical/vocational Institutions must be fully resourced with workshops and tools in order to enhance the quality of the graduates. Also, government should initiate effective internship programme collaboration with the industry as a core requirement for effective technical/vocational education in the country. This will facilitate and guarantee quality training of the students; and build the confidence of the industry in technical/vocational graduates and boost the employment prospects of TVET graduates.

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APPENDICES

APPENDIX A:


APPROVAL LETTERS FROM RELEVANT GATE-KEEPING INSTITUTIONS

34

NATIONAL COUNCIL FOR TERTIARY EDUCATION

In case of reply the number and date of this letter be quoted
My Ref. No. *HC/C.71/v.2*
Your Ref.

P. O. Box MB 28
Accra - Ghana


REPUBLIC OF GHANA

May 29, 2018

Dear Sir,

LETTER OF INTRODUCTION: BARAKA POLICY INSTITUTE

We write to introduce to you Baraka Policy Institute, a think tank with particular focus on education and social justice.

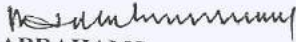
Baraka Policy Institute is undertaking a research on the topic "The Quest for Creative Employable Skills: An inquiry into the State of Technical/Vocational Education in Ghana."

The Institute wishes to administer questionnaire and conduct interviews in public technical universities/polytechnics in Ghana in line with the research.

We shall be grateful if you will offer the Institute the necessary assistance in this direction.

Thank you.

Yours faithfully,


N. A. ABRAHAMS
HEAD OF CORPORATE AFFAIRS
FOR: EXECUTIVE SECRETARY

Cc: Executive Director, Baraka Policy Institute

Distribution

Interim Vice Chancellor	-	Accra, Kumasi, Koforidua, Takoradi, Sunyani, Ho, Tamale and Cape Coast Technical Universities
Rector	-	Wa, Bolgatanga Polytechnics

Office Location: East Legon—Trinity—IPS Road (Lagos Avenue), Adjacent Chartered Institute of Bankers Ghana, Accra - Ghana
Tel: +233-302-918790 +233-20-9989414 +233-20-9989413
E-mail: info@ncte.edu.gh

GHANA EDUCATION SERVICE

In case of reply the number and date of this letter should be quoted



REPUBLIC OF GHANA

HEADQUARTERS
Technical/Vocational Educ. Div.
Ministries Branch Post Office

My Ref. No:

20th August, 2018

**ALL PRINCIPALS OF SELECTED
TECHNICAL INSTITUTIONS**

**INTRODUCTORY LETTER TO UNDERTAKE RESEARCH IN SELECTED
INSTITUTIONS
BARAKA POLICY INSTITUTE**

This is to introduce the bearer of this letter Dr. Haruna Zagoon-Sayeed, the Executive Director of Baraka Policy Institute to undertake research on the topic: "The quest for creative employable skills: An inquiry into the state of Technical/Vocational Education in Ghana".

The selected Institutions earmarked for the research are Accra Technical Training Centre (ATTC), Cape Coast, Koforidua, Kpando and Takoradi Technical Institutes.

Please, kindly accord the researcher all the needed courtesies and cooperation in support of the above mentioned project.

I count on your usual cooperation.

Thank you.


AUGUSTINE G. AYIREZANG



NATIONAL VOCATIONAL TRAINING INSTITUTE (NVTI)

• P. O. Box MB 21, Accra • Tel: 0302-518698 / 506890 • Fax: 0302-507661

NVTI/COA/20/VOL. 5

4th June 2018

Baraka Policy Institute
P. O. Box AN 5216
Accra

ATTENTION: Mr. Haruna Zagoon-Sayeed (PhD)
(Executive Director)

Dear Sir,

**RE: REQUEST FOR AN INTRODUCTORY LETTER TO UNDERTAKE RESEARCH IN
SELECTED SCHOOLS UNDER YOUR OUTFIT**

Acknowledgement is hereby given on the receipt of your letter on the above subject dated 30th May 2018.

The research topic "**The quest for creative employable skills: An inquiry into the state of Technical/Vocational Education in Ghana**" is very laudable. We therefore wish to inform you that approval has been granted to your outfit to undertake the research in the attached NVTI Training Institutions.

Thank you.

Yours faithfully,

**Engr. Juliana Nkrumah
Controller of Apprenticeship
FOR: Executive Director, NVTI**

Cc: Directorate

**APPENDIX B:
SAMPLED APPROVAL LETTERS FROM INDUSTRY**



Silver Star Auto Ltd.
General Distributors and authorized sales and service representatives of Mercedes-Benz in Ghana

General Distributors and authorized sales and service representatives of Suzuki vehicles in Ghana
Distributors of Energizer automotive batteries
Distributors of Motul engine care oil

May 16, 2018

The Executive Director
Baraka Policy Institute
32nd Street – Memepeasen
East Legon – Accra

Dear Sir,

RE: REQUEST TO USE YOUR COMPANY AS ONE OF THE RESPONDENTS OF OUR RESEARCH ON THE STATE OF TECHNICAL/VOCATIONAL EDUCATION IN GHANA


We acknowledge receipt of your letter dated May 10, 2018 on the above subject and wish to inform you that permission is granted for you to use our company as one of the respondents of your research.

Please be informed that management is ever ready to provide you with the information you may require for your research work.

In addition, all the heads of department have been advised to give you the necessary support in form of data and answering of questionnaires any time you call on them.

We are standing by to support this worthy cause.

Yours faithfully,


Nouhad Kalmoni
Chief Executive Officer

Cc: Heads of department
File



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Airport Showrooms: Silver Star Towers (Ground Floor), DTD 192, Cantonments, Accra-Ghana, Tel: +233 (0) 302 768 849-51, Fax +233 (0) 302 761 017
Service Center & Showroom CV: Mankoadze Roundabout, P.O. Box 199, Tema, Ghana, Tel: +233 (0) 303 200 596 - 7, Fax: +233 (0) 303 210 609, Email: workshop@silverstar-gh.com/parts@silverstar-gh.com, cv_sales@silverstar-gh.com, www.mercedes-benz.com.gh, www.silverstar.com.gh
Kumasi: Frempleh 1 Street, Adum, P. O. Box 4019, Kumasi, Ghana, Tel: +233 (0) 323 037 326, Mole: 0556-490 450, E-mail Sales: kumasi-sales@silverstar-gh.com, Email workshop: kumasi-workshop@silverstar-gh.com
Bankers: Standard Chartered Bank / Stenbic Bank / Ecobank / Zenith Bank



DMN/05/18/0470



Graphic Road
P. O. Box AN 5216, Accra – North Ghana
Tel: (233-302) 682220, 682223 – 6
Fax: (233 - 302) 682221, 682233
E-mail: sales@japanmotors.com

23rd May, 2018

The Executive Director
Baraka Policy Institute
32nd Street-Mempeasem,
East Legon-Ghana.
Accra

Attn: Haruna Zagoon-Sayeed

Dear Sir,

RE: REQUEST TO USE OUR COMPANY AS ONE OF THE RESPONDENTS FOR YOUR RESEARCH ON THE STATE OF TECHNICAL /VOCATIONAL EDUCATION IN GHANA.

We acknowledge receipt of your letter dated May 10, 2018 on the above subject and write to accept your request of adopting Japan Motors Trading Company Limited as one of your focal reference point in your intended research project.

We advise you communicate your scheduled **date and time** to us prior to your visit for the purposes of convenience.

We are also happy to be identified as a stakeholder and a partner concerned with the improvement of quality Technical/Vocational education in Ghana.

We are looking forward to seeing you soon.

Thank you

Yours Sincerely,

For: Japan Motors Trading Company Ltd.

Serwah Akoto Opoku-Ampomah

Human Resource/Admin. Manager

cc: **Managing Director**

Tema: 0303 204169 Kumasi: 03220 30200 Tamale: 03720 22125 Takoradi: 03120 31110

