

UNIVERSITY OF CAPE COAST

CHALLENGES IN THE ADMINISTRATION OF TECHNICAL
VOCATIONAL EDUCATION AND TRAINING IN THE GHANA
EDUCATION SERVICE

BY

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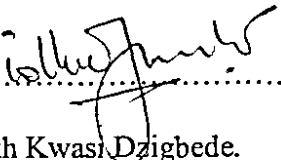
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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:  Date: 7TH AUG. 09

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Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature: Date:

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ABSTRACT

This research is about challenges hindering effective Technical Vocational Education and Training in the GES. It examines how TVET programs impact on the Ghanaian society as well as students' career. The research calls for support of stakeholders to do away with rhetoric and seek to promote quality career environment for training those who choose TVET.

The study identified problems of too many students not being prepared for specific career, beside clerical duties. Most of the challenges emanate from internal and external factors, but the discussion shows how this could be resolved through good practices. Contributions of various stakeholders in the GES were ruthlessly examined in light of literature reviewed, and the conclusive views of the 204 population used to generate opinion, and input were done by use of questionnaire, and semi-structured interview.

Respondents' notion was that, TVET has been starved for long by the: absence of career Guidance and Counseling service, lack of good number of trained/professional teachers, logistics stationery, equitable funding, among others. Research questions were answered to confirm the variables of interest to the topic by use of spreadsheet to determine correlations.

The research outcome includes recommendations that TVET Administrators and GES could adopt in promoting the discipline. Re-distributive policy option has strongly been suggested to the MOESS or the Government to adopt in her effort to turn round the sinking image of TVET among GES institutions.

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Finally, I wish to express my sincere indebtedness to the many authors whose pioneering works had inspired me to quote them in support of the topical themes for this research to have credence.

DEDICATION

This work is dedicated to the late Mr. Peter Drofenu, former District Director of Education of Ajumako for his inspiration and encouragement.

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LIST OF ABBREVIATIONS

ACRONYM	DETAIL
APTI	Association of Principals of Technical Institutions
CBT	Competency Based Training
CIT	Critical Incident Technique
CRDD	Curriculum Research Development Division
CSSPS	Computerized School Selection and Placement System
GDP	Gross Domestic Product
GES	Ghana Education Service
GNAT	Ghana National Association of Teachers
GRATIS	Ghana Regional Appropriate Technology Industrial Service
JICA	Japan International Co operation Agency
JSS	Junior Secondary School
JHS	Junior High School
M Ed	Master in Education
MMDE	Ministry of Manpower Development and Employment.
MOESS	Ministry of Education Science and Sports
MOFA	Ministry of Food and Agriculture
PNDC	Provisional National Defense Council.
PSI	President's Special Initiative
RTTC	Rural Technology Training Center
SSS	Senior Secondary School

STEP	Skilled Training Entrepreneurship Project
TVET	Technical Vocational Education and Training
UNESCO	United Nations Education Scientific and Cultural Organization
VSP	Vocational Skills Project

CHAPTER ONE

INTRODUCTION

Background of the Study

In an editorial on the relevance and the need for effective skills training for Ghana, Asantehene, Otumfuo Osei Tutu II, added his voice to other forerunners' appeal to the Government of Ghana and education planners to give urgent, needed attention to Technical Education. In the view of the king, this is necessary if the country is to make progress and develop technologically. (Daily Graphic, 2005, December 16,)

This dissertation shares the views of the Asantehene, and it is about the human resource development effort that the Government of Ghana pledges. However, this development goal will not be attained without paying due attention to occupations, talents, and students who are endowed with a flair for using tools and equipment in various fields or professions, to solve problems that require practical skills and know how.

The author recalls some positive development programmes under Governor Guggisburg, who catalysed the need to have technical experts who could support the country's wealth creation policies, hence the establishment of special 'hands on work' type of institutions for grooming craftsmen and technicians. Past development efforts of the country showed that technical and vocational 'training' had their appropriate place in the scheme of national socio-

economic growth, and this imparted positively during Ghana's early industrialisation era in the 1960s.

Over the years, it has been expected that Trade Schools which were established in the 1950s, and became Junior Technical Schools which metamorphosed into Technical Institutes, would be restructured to sharpen their creative potentials to contribute to the skills of students who pass through these institutions. Also, prospective students' basic knowledge into technologies would be turned around to foster their middle level management and productive abilities. This has been the practice in developed countries, where these countries forged their economies ahead by improving upon local technologies for which Technical education has proven invaluable.

However, the performance trend has not been all that encouraging over the years. Public perception has been negatively expressed in some circles of the Ghanaian society concerning poor performance of TVET products. This dissertation delves into factors that could contribute to eliminate the bad notions about TVET and suggest that, time has come for Ghanaians to dispel the notion that TVET does not deserve our regard to be resourced sufficiently in order to gain recognition in the country's educational system.

The importance attached to the provision of skill training, was reported to have started in Ghana in 1828 by the Basel missionaries. Practical skills training started formally as an integrated discipline that took care of boys who studied Agriculture whilst girls studied Needle-work. Later on, pupils were inducted into practical works in the building trades which incorporated: bricklaying, carpentry,

book-bind and metal work. Mac Williams & Kwamena Poh (1959) reported that students who studied these special skills had assisted the missionaries in building the infrastructure of some schools and churches in Akropong Akwapim.

Twum-Barimah (1976) noted that technical vocational education started in 1857 at Abokobi in the Greater Accra Region of Ghana. The innovated skills curricula caught on well with the community, which learnt the building skills from their own children who were in school. These parents were enthused about the practical acumen of the technical trainees and appreciated their role in nation building and development. In addition, model farms were reported to have been established to cultivate non-traditional crops such as cabbage, sweet-pepper, spinach and other crops desired by the foreign missionaries. – Antwi, (1992)

TVET: A Latter Educational Innovation

The Wesleyan missionaries were reported to have introduced formal education in the 14th century in support of commercial and clerical jobs they offered the indigenes. That system of education sustains trade and preaching of the gospel; whilst technical vocational education delivery began in the 19th century. Some tangible reasons cited by historical records for this late start of TVET in the then Gold Coast by the missionaries were: the high capital cost of tools and machinery to support technical training was prohibitive. In addition the missionaries were disinterested in setting up institutions which could promote competitive market to their home trade. Also other researchers indicated that the desires of indigenous settlers in the coastal towns in performing clerical duties were in vogue; and the mental setting of the inhabitants towards foreign goods which were their choicest against local products had contributed to the late start of technical schools.

Persistent efforts made nationally to introduce skill training during Governor Guggisburg era were reported to have been developed upon Lionel Russell education review committee's 16 points policy of 1925. Consequently, Achimota School in 1931 developed curricula in Engineering studies, which integrated secondary school programme with applied technology in the Gold Coast (Ghana), and offered courses in external BSc. degree in Electrical Engineering. In furtherance of that policy implementation, technical education and training agenda was pursued on larger scale by the government in the 1940s and 1950s, the outcome of which was the establishment of Junior Technical schools at Asuansi (1922) Kibi; Mampong (Ashanti) and Yendi, but the institution at Yendi was relocated to Tamale in 1948. (Mac William & Kwamena Poh, 1959)

Policy Innovations

Graham (1975) observed that training in 'hands on work skills' intensified as formal schooling improved through accelerated education policy legislation of 1957, through a seven-year education development plan for Ghana. This plan emphasized practical and skills training in agricultural, commercial and industrial sectors of man-power development to support Ghana's economic growth. Contrary to the spirit of that policy, this innovation became unpopular with the larger public after a while. TVET lost its vitality over time, and was least patronized by children of elites. The initial enrolment in the trade schools suffered very low figures, and by way of encouraging the masses, the government adopted liberal actions involving, the absorption of ex-fighters and war veterans into trade schools in the 1950s. Also, children from borstal institutes, as well as slow learners with low academic attainments in the cognitive domains of learning, became the pioneer beneficiaries of skills training in the country.

Furthermore, government approved the inclusion of TVET into public schools in 1964 and projected TVET institutions throughout the country as a complimentary man-power development strategy for agriculture, industry and commerce. Although national population had more than doubled, and grammar type second cycle schools (SHS) increased beyond 495 by the end of the twentieth century, the GES has only 26 public TVET institutions providing skills training, with over 290 private vocational institutes as shown in table 1 beneath.

Table 1

Distribution of SSS, Colleges of Education; and TVET Institutions in Ghana

REGION	TECH.INST.	NVTI	& PRIVATE	SSS	TTC
Gr. Accra	4	4	64	37	2
Eastern	6	3	48	74	6
Central	2	6	44	49	3
Western	2	2	17	41	3
Ashanti	2	6	54	81	7
Brong-Ahafo	1	2	19	53	3
Volta	4	6	37	70	7
Northern	2	3	2	32	3
Upper East	2	3	1	20	2
Upper West	1	3	7	17	2
Total	26	38	293	474*	38

Source: GES Education Review 2006

Table 1, presents statistics of career oriented institutions. The data on Eastern-region is paramount; it has the highest number of Technical institutions which matches with six teacher training colleges. All other regions show non-proportionate number of technical institutes compared with other learning centres. Until 2005 when Twene Amanfo Secondary Technical School was up-graded into technical school, the Brong Ahafo region had no technical institution operating under the GES; having up-graded Sunyani Technical Institute into a polytechnic. The irony of this data is that, there are private vocational training centres which spread on a broader coverage in the regions, compared to public technical institutions. With the exception of Upper East region which has one vocational centre, the high prevalence of trade schools in other regions show how convincing the vocational centres are championing, the objective of promoting skills training for the working class.

Management of the Technical Institutes

The structure and organization of public technical institutes come under the management of a divisional directorate in the GES, which is headed by a divisional Director who is stationed at the Headquarters. This functional Director takes charge of all the public Technical/Vocational institutions under the GES, and he is assisted by a Deputy Director of Education, at the Headquarters. The Head's position is one of the 10 functional Directors who report to the Director-General of the GES. There are no line- staff executive officers at the Regional and District levels of management. The absence of these intermediaries also impedes smooth running of TVET administration nationally.

TVET institutions are administered and managed by Principals. These were staff that attained defined status of an Assistant Director I, and now Deputy Director of Education grade, with other merits as set down by the GES Council. Principals administer the schools through the administrative support of District and Regional Directorates, with the management backing of a school Board of Governors. (Duodu, 2003). Other established characteristics of the TVET Administration include: (a) Feeder institutions and entry standards of aggregate 6-30 in the Basic Education Certificate Examination (BECE).

- (b) Supply and logistics unit which distributes hard ware and machinery.
- (c) Teacher education and teacher supply from three specialized colleges of Education.
- (d) Assessment and Evaluation Unit, which administers trade certificate examinations, and
- (e) Curricular development and quality assurance unit.

The important role of the above bodies and other ancillary units will be reflected upon under the literature review.

To wind up the background, one takes a critical view of the Report of the President's Committee on Review of Education Reforms in Ghana; (otherwise known as Anamuah -Mensah report) (2002, Oct): Section 3. 2.5. 4; which reads:

As of now, only a few Technical Institutes are in fairly good condition; the rest are in various stages of neglect. Their physical structures are in a terrible state of disrepair, the equipment and curricular are outdated, their teachers

and instructors lack relevant work experience and pedagogical skills. pp 11.

In spite of these challenges, politicians, eminent educationists and some industrialists advocate the revamping of TVET institutions to become a parallel system to the Senior High Schools. This system, they speculated has diverse capabilities to turn around the man-power wastage, due to fact that general education has over produced scholars who have little avenue of employment in the country. The government white paper on the latest Education Review Committee Report of October, 2004 touches further on the issue of inadequate provision for TVET institutions, and the need to revamp a number of unstructured courses offered under the discipline of apprenticeship – these, among other factors, will be researched into for a more focussed discussion.

Purpose of the Study

The primary purpose of this study is to inspire both providers and consumers of the TVET programmes and suggest a rebranding for technical education programme and to make it more relevant, as it is both scientifically and technologically advanced than vocational courses. The study also intends to examine policies that established the technical institutions in order to suggest a re-enactment or review, with a possibility to strengthening TVET system. It will also identify factors in the educational strategic environment, which militate against prospective students' interest, and offer views for redressing same.

Furthermore, the study will unearth ways and means of promoting interest of BECE and SHS graduates in TVET. The study also directs effort on how to

improve the management of TVET courses by way of restructuring some programmes, as well as advocating, and suggesting to the GES and the Government, to reflect on the serious drain of the nation's human resource, which can be trained into a suitable profession.

Statement of the Problem

The main problem being researched into are: how to turn around the gloomy image of TVET under the GES, and make professional courses offered in them attractive to prospective students by projecting their academic programmes to entice most Junior High School leavers, as well as appeal to graduates of the Senior High Schools to seek training into practical/work skills and become productive persons.

Also, not enough attention for technological training has been instituted. Provision of needed logistics were not being injected into TVET courses by way of support for experiment, workshop activities, and realisation of students designed artefacts to promote quality human resource/expertise that meets national capacities. Examples, inability to refine mineral resources mined in Ghana; and applying scientific and technological processes to turn them into finished goods of immense worth. The lack of technical expertise and infrastructure now compels the nation to export raw materials for little value that no longer sustains her economy; as well as lack of quality road construction engineers or technicians.

Thirdly, there are uncertainties about which strategic approach will surmount the plight of average students' disinterest for TVET, and channel the

mass of BECE graduates through TVET without compromising their academic stand. According to a Computer School Selection and Placement System (CSSPS) data, the 2005/6 and 2006/7 academic years' admission portray a remarkable trend which demands urgent redress. Whereas there was a general decline in admission statistics, the total number of students placed in senior high schools (grammar/sciences) dropped from 149,902 to 145,233 by 3.12 % margin, compared with 5,948 to 3,759 amounting to 36.81% drop in students placed in technical institutions.

Also, the study noted that lack of equity in the provision of resources and infrastructure development as another factor which cannot bring about good intentions of government. Currently, the Ministry of Education intends to undertake the construction of senior high schools of excellence in each of the 110 Administrative districts, whereas only one technical institute of good standard, per region was earmarked for the TVET sector, which rather deserves urgent attention. Educational prioritization is also a contributing factor to afore stated problems. Additionally, re-writing of the TVET curricula to meet the electronic/ICT era of doing business and rebranding some of the programmes to regain currency, are of concern.

Finally, the study is concerned with the training environment which operates in isolation and remote from industrial practices or standards. This has placed practical institutional training into disrepute.

Research Questions

Opoku (2002, p. 9.) perceives good reasons for use of research questions than hypothesis in pioneering works, hence this dissertation will be tested through the following: (a) Is there a positive correlation between the cost benefit returns in TVET Administration in the Ghana Education Service?

- (b) How actively do Guidance and Counsellors of Education Service assist prospective students into career selection, taking cognizance of students' interests, social, and educational background?
- (c) To what extent do TVET Administrators ensure that their programme objectives, curricular, and training needs are adequately provided?
- (d) What strategic plans are in place to mitigate the challenges and unhealthy environmental factors in TVET, in order to absorb the teeming youth who are not placed in senior high schools of their choice?
- (e) How effective are support services that strengthen skills acquisition, particularly: training logistics, teaching and learning materials, and curricula development for TVET courses?

Significance of the Study

This study provides innovative, substantive research base for generating and implementing policy to promote successful administration of TVET. Its significance lies in fact that Education transmits societal culture to her youth and TVET has the ability to introduce learners to both academic and appropriate

transfer of knowledge, as well as application of scientific principles which are key to technology. Additionally, a number of ideas raised by respondents have been catalogued for interested researchers who may embark upon further investigation, and so begin by asking relevant questions about these challenges. Educational Administrators and politicians could also use the study as food for thought, so that their actions and implementation strategies would have bearing on ideas that have been researched academically rather than rhetoric.

The initiative provides clear insight to teachers and career counsellors who need to conscientize the youth in school about a needed culture of work. It also inspires the larger society about the essence of transmitting a technological culture of work to our future leaders in order to make them wealth creative. This material is ideal for the reading public which is curious about the plight of our youth in worthless agenda, and more importantly for academia who will find TVET to be an alternative avenue to wealth creation and self emancipation. Also policy decision makers and Educational Administrators, whose actions can professionally promote TVET, will find the study very challenging to read.

Finally, the study offers tremendous insight to both providers of TVET who need to understand the challenges in the sector and the youth who are contemplating about career or profession to pursue. The discussion is a curtain raiser on human capital formation which the government should promote with seriousness, so that Ghanaian expertise in relevant trades could be of assistance to other developing partners in the world of work involving technical services.

Limitations

The short comings of this dissertation are:

- (1) The inclusion of some Junior High School students in the generation of data had produced some vague responses owing to their level of understanding.
- (2) Despite the presence of personnel who administered the questionnaire, some respondents pleaded for time to duly complete the questionnaire which they delayed to return; some never submitted them, this accounted for receiving 81.6% of questionnaire administered.
- (3) The geographical dispersion of the strata necessitated the intervention of research assistants to administer the questionnaire elsewhere; i.e. Wa, and Kumasi localities.
- (4) The inconvenience of unavailable occupational statistics at both regional and national levels concerning various strata understudied, restricted the writer to make educational guesses on appropriate sampling size.

Delimitations

This dissertation high-lights factors which impede the progress of TVET delivery in the Ghana Education Service. The sample of strata used was limited to selected sectors of interest and sample sizes were largely assumed. The researcher therefore does not recommend the outcome of the study beyond TVET within the Ghana Education Service.

Definition of Terms

Key board based service: Application of Information Communication and technological knowledge to solving peculiar work problems.

Cost benefit returns: Self actualizing rewards that are relevant and responsive to high quality needs of both individual and the labour market.

Knowledge paced era: A state of economy in which workers are paid for usage of their brains or cognitive abilities rather than psychomotor skills, in solving perceived problems.

Supply driven demand: A training scheme that centres on partial acquisition of knowledge for certification purposes.

Positive enlightenment: Socio-education and freedom that fosters self actualization.

Vocationalization: A process of going through specific career training below Junior High School status.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This section examines the topic by breaking it down and linking it with the views of other writers and researchers. It has been organised into three sections: Introduction – which looks at the sub-sector from views expressed by contemporary writers on the subject. Secondly, the body has been reviewed under key points to enhance cognizance of contributions that are relevant for academic interest and understanding of the challenges inherent in the administration of TVET institutions. Finally, other experts' views on the subject and current trends in training for life-long learning and economic sustenance, draw the chapter home. The chapter is therefore organised under the following:

Goals and Policies on TVET Provision in G.E.S.

Twum-Barimah (1976) noted that “in English speaking Africa, the educational system and programmes are a direct tradition of the British system”. It reckoned that British institutions which are “models were characterised by rapid and frequent changes and evolution, yet the culture of change remains exclusive to nations that emulate the British institutional goals”. The foreign systems are stimulated by rapid progressions that were best served by their financial and human resources at their command, as against the African transplants. Twum-Barima, (ibid), observed that, “Although we're lured on, by their system we are unable to catch up with them,” with a reason which he attributed to limited

collaboration between our universities/institutions of technology, research, and industry. Columnists in the national dailies lament on the absurdity of local training which lacks focus and not backed by clearly co-ordinated policy goals, and therefore are often threatened when external influences set against it. Bottery (2000) argued that: "policies need to be directed at creating more competitive economies, with more people in work, which has direct implications for the form of education system in place."

In the early post colonial era, it became apparent that the inherited educational system and aims of education in Ghana were grossly inadequate to meet planned changes expected of available manpower, for the social development and economic sustenance of Ghana. This led to a number of education reviews in the past. A number of researchers such as: Mac William & Kwamena Poh (1959) and Graham, (1975) noted works done by various education commissions under past governments, in reviewing the local educational system. Whilst most past commissions reviewed general disciplines, a few suggested a cultural revamping of the system with a vision of introducing and improving upon the local demand for technical education as a means of providing man-power to sustain industrial growth. Unfortunately, implementation of policy objectives has not succeeded in any sporadic changes in course of time. Van Meter and Van Horn (1975) opine that "we should emphasize that the implementation phase of policy does not commence until goals and objectives have been established by prior policy decisions; it takes place only after legislation has been passed and funds committed. The political will of a

government no matter how strong it is may not implement policy changes in its entirety” pg. 448. It is time educational leaders and political decision makers realised the importance of various phases a policy cycle; and ensure that stakeholders have been approached, consulted and partnered.

Johnson and Scholes (1989) in discussing the concept of strategic management conceptualized “strategy” as: “matching the activities of an organisation to its environment; and/or resource capabilities”. Three main elements as identified by Johnson and Scholes, which are very likely to promote strategic policy management process in TVET are:

- (a) Strategic analysis: accounting for all factors that are likely to influence a plan
- (b) Strategic choice: critical decision on most feasible approach to resolving an issue; and
- (c) Strategic implementation: initiatives which bring out the vision for desirable changes.

The writer (ibid) observes that, ideas of educational change do not easily occur, since many attributes: such as environment, funds, manpower, among others, either refute or normally resist changes to a nation’s educational plan for intended change. Factors that bring real change depend on our conviction of where we find ourselves, and where we rethink of getting to, and by which route or means we can advance safely. These ideas require both time and professional conversations regularly to manifest one’s vision. Senge (1990) reported by Whitaker (1998) aligns his ideas after Johnson and Scholes that: “visions that are

truly shed, do take time to emerge by a refining interaction process". Vital community mouthpieces, opinion leaders in education and industry, and subject associations, among others, are some of the instrumental links by which fresh ideas can be sourced through public symposia.

One of the key concerns of stakeholders in Ghana's education system is about the absence of major comprehensive policies on education, laments Ameyaw-Afumfi, (1990). In some instances the work of committees set to consider problems or national issues on education e.g. TVET policy, never came out with findings, or rather such findings never received governmental backing, before political changes thwarted their effort. A case in point was during the PNDC regime, the joint policy document on Technical and Vocational Education; produced by Ministries of Education (MOESS), and Mobilization and Social Welfare (Now MMDE). It appears not enough attention was given to the joint policy document of these key TVET providers in the country, yet we are of the view that fragmented policy frameworks are not helping to re-shape the purpose of TVET in the country.

Haddad (1995, pg. 40) in his educational planning concepts defines educational policy as "a politically derived intervention (often taking the form of a law) whose purpose is to resolve a perceived social problem". Educational policy invariably has political and legal/constitutional underpinnings, and it is usually framed and implemented by governmental agents for parliamentary approval. Not only does it unduly take long to legislate and sensitize the public

with a policy, but also to orientate all who have something doing pertaining to that policy, for it to have a governmental accent for enforcement.

Fundamentally, a policy and its associated goals for implementation within a defined societal setting will simply be referred to here as a 'strategy'. Strategy is a key concept in both theory and practice of management, and involves a range of factors such as noted by Whitaker Patrick, (1998), which includes:

- (a) Environmental forces operating on the entity, since different environment requires varied approaches.
- (b) the values and expectations of stakeholders involved in the sector.
- (c) the location of power and influence in the life of a policy plan.
- (d) Resources available and their allocation by managers or policy agents.
- (e) the long-term direction (vision) of the entity e.g. MOESS/GES.

In the new dispensation, the Ministry of Education (2001) has drawn up a policy framework for directing trainers, educationists, and administrators. In her "Policies and Strategic Plan for the Education Sector"; provision has been made for giving a much needed attention to the diversification of the Basic Education curriculum at page 10: Sub- sections (a) (b) (c) and (d).

Diversification of the Curriculum

What then will constitute the Basic Education Curriculum such that elites will stop perceiving the curriculum as turning their children into just tradesmen?

Sogah, (1998), observed that "it is quite exorbitant to develop any curriculum, yet not enough resources are committed into this" by the GES. He further observed that the business of "what" to teach to skill-trainees has not been

well coordinated in the country. A former Director-General of the GES (2003) at a briefing with members of APTI, rethought that "the under developed nature of the TVET curricula makes it unacceptable to the National Accreditation Board", to approve of the intermediate craft certificates for direct progression into a tertiary level of learning. If we probe into what the curricular should reflect for acceptance, then we need to approach this wholly from point of view of stakeholders in education, industry and the tertiary institutions.

The MOESS in 1987, embarked upon a major Educational reform to serve the needs of students and society by opening up of secondary schools into: General Art/Science, Home Economics, Visual Arts and Technical programmes. These structural changes introduced new syllabi into the SSS and Secondary Technical schools were established. Later, the Polytechnics got restructured but virtually nothing was done about the fragmented Vocational and Technical courses for skills training. Another element of concern is the lack of co-ordinated unique curricula policy for TVET training. The problem appears to be one of a dysfunction, in that, the Curriculum Research Development Division (CRDD) which has the expertise in developing and testing teaching and learning, and set books for G E S schools, has no direct control over TVET. The discipline was bequeathed to G E S Technical Examinations Unit, a body which is not well staffed and resourced financially to carry out the desired development of TVET under the GES. CRDD may have to liaise with Association of Industries, or Industrial Training Advisory Board and consider taking over the preparation of the City and Guilds Craft Syllabi in future. This specialization would fit into

Taylor's (1911) scientific management. The GES Technical Examination Unit would then have enough opportunity to concentrate their abilities on final practical work assessment, practical testing, and examination routines.

The TVET Curricula and Training Facilities

The curriculum is a school based program which lays out the planned activities of educational programmes. It incorporates ideas of what society intends to transmit culturally, technologically and socially through an instructional guide. Socio-cultural changes may be noted in terms of desired improvements in our value systems, belief, work and health practices. Technological development also thrives on the transformations of labour intensive subsistence means of production into more mechanized, scientific and effective production modes.

From the fore gone precepts it is clear that the curriculum is one important tool which nations continue to improve upon to facilitate social changes. (Claire, & Marie, 1959) GES in the 1987 embarked upon a new Educational reforms that tremendously improved the then secondary school curricula which was criticized for lacking focus and good objectivity, badly structured, shoddy content that was elitist, inaccessible to mass of learners due to its examination centeredness among others; without effecting similar innovative tinkering on the GES Technical Vocational Education and training system and curricula. The responsibility for this development rests with the Technical Examinations Unit, a body supervised by Director (Tec/Voc) and over seen by a National Accreditation Board. For obvious reasons (appendix 'F'), the TVET scheme has largely failed to appeal to

the mass of BECE students who were not failures but could not access general secondary education. Even if most BECE students thought of the TVET institutions, how many students could be placed there in view of their numbers?

To wrap up, one looks at the constituents of TVET course structures. A discussion and personal assessment of subjects offered at TVET places of learning indicate that, all basic subjects provided as core subjects: English language, Mathematics and Integrated science are taught and learnt. In some instances, few institutions introduced the Social Studies syllabus at WAEC standard into their teaching curricula. So what were the differences about, for which respondents were critical? The researcher found out that even though learners were taught these subjects at all TVET schools, the final intermediate examinations simply compound the knowledge in the respective subject areas into general examination paper or component for testing and certification. Hence instead of writing examinations in respective subjects to gain the recognition of the elites, grouped or combined subjects assessment is the practice. The compounding of subjects into one examination paper should be justified or reviewed. By the views expressed in appendix "G", the agency responsible for planning and developing the TVET curricula will need a more pragmatic approach to make the system enticing to the youth.

Rhetorics

Time and over again, government officials and concerned citizens make emphatic statements, which go unheeded. Daily Graphic published some of these statements in (2005, 22nd Aug) and (2006 18th Jan.) captioned "Equip youth with

employable skills”; and “Redesign Technical Vocational Education”; among others. Not only do such calls sound the clarion, but also do indicate the absence of cohesion of a political ideology of the agency on the subject. A case in point was that of the Ministry of Education’s stand on increasing resources to the JHS for re-equipping them under priority consideration – MOESS (2004 Oct.), White paper on Education Reforms Review Committee Report. pg 19. The obvious challenge that confronted the JSS and by which most of them lost their technical equipment during the institutionalization of the 1987 reforms was the absence of workshops and good storage facilities. Secondly, the JSS system lacks technical skills teachers; hence any meaningful scheme should focus on the sources of the problem first, in order not to repeat previous errors. Thirdly, Agricultural training has been slated for prioritized backing of the Education ministry but, not many of the GES schools are offering the subject in the first place. Akpakli (2003, Jun) noted statistically that 105 out of 495 second cycle schools offer Elective Agricultural studies theoretically; whilst 2 institutions out of the 26 Technical Institutions offer agricultural-mechanisation. The data about the private vocational institutes are still insignificant. The Ministry of Food and Agriculture (MOFA) has eight credible institutions consisting of 5 Agricultural Colleges and 3 Farm Institutes. For a country which runs an agriculture centred economy, these places of learning should be opened up by increasing access, and what they must teach and learn about should be critically answered so that their priority status for funding them could be commendable, a good return on cost benefits, since a larger number of students will be admitted over time. As the Ministry of

Education continues in her effort to find lasting solutions to the challenges of the TVET sector, it is hoped that the services of the MOESS/VSP and MOESS/JICA consultations which started by 2005 August, will produce a fruitful outcome. Perhaps a leeway for government is to prioritize the development of the TVET sector significantly, and provide excellent equipment and competent personnel to facilitate quality professional training. The nation could utilize any excess manpower in foreign overseas volunteer service to boost her economy under partnership and bilateral agreements. This could bring higher cost benefits directly to both the government and individuals and help to curb the brain drain menace involving the highly educated labour force of the country.

Another fundamental weakness of the current basic education system is that, the contemporary society complains of too many subjects being taught at the Primary and JHS levels as reported at section 6.3 of the White Paper on The Education Reforms Review Committee Report by (MOESS, 2004). Such a factor appears a contributor to the unprecedented fallen standards perceived in education generally. Most average intelligent students have fallen between schools of: good intellectual formation on one hand and those of practical skills training on the other. The question to put forth is, who then decides the career path, and based on what criteria? In 1987 the MOESS identified three core subjects: English, Mathematics, and Integrated Science. By September, 2007; there are five core subjects in: English, Mathematics, Integrated Science, Information Communication and Technology, and Social Studies. Convincingly, the TVET

student will henceforth have to read and pass examinations in the core curricula to buttress his future academic pursuit.

According to Adentwi (1999) where outright curricula reforms were not warranted, innovations on continuous basis were required to make the syllabi current and functional. He elaborated on curricular innovation as a process that usually adopts one of the following forms: First of all, substitution: a replacement of an element or syllabus/book which is in existence with another, on well thought and planned curricular processes of analysis, objective setting, content selection, methodology and formative evaluation, in order to impart quality education or regain currency.

Next is alteration: A minor change is introduced into existing materials; syllabus /textbook, with the hope that it appears minor or trivial and can be adopted by teachers and learners unwittingly.

Then, perturbation: This refers to irritating changes introduced at short notices to teachers; in order to make provision for changes in say the time-table.

The TVET curricula hardly sees any of these approaches of introducing vibrant and needed changes for decades, which has led to the stalemate and sentimental rejection by prospective students. The researcher is of the view that things are so because the principal agents: personnel from industry and seasoned teachers were not being involved in the design of the curricular.

On the other hand, society expressed dissatisfaction about the absence of good academic user facilities, for not encouraging training in "hands on work" skills. First and foremost, the acute limitation of low learning on the part of

students who entered TVET demands that, lessons be demonstrated by ample use of the correct work situation- simulation. In most institutions laboratories to support scientific work process investigations have broken down. Furthermore, where workshops exist, the absence of the right practical training materials: rods, wooden planks, sheets of metal, flexible copper wire among others, have forced the workshop instructors to use lecture or other verbal communication approaches to convey their lessons which most often fail to impart positively on learners.

Administrators of TVET schools also lament that, needed inputs were either lacking or irregularly injected into making training relevant. What the researcher noted was that the TVET training institutions compete with other commercial and industrial consumers over high economic worth of practical training materials, therefore institutions are disadvantaged by being unable to afford substantial amount of materials with their school budget. The same factor prohibits those who venture into the private technical schools from doing any practical works at all. Even where a student in private technical school passes his final examinations, his market/industrial quality in terms of practical skills acquired, were unsuitable for work in industries unless he is re-orientated generally at his employers expense.

Education, Capacity Building, and Socio-Economic Growth

One of the major development challenges the nation faces is the need for coherent policies on TVET and initiatives to turn the youthful citizenry into skilled human resource asset in today's global economy. The emerging digital economy has tremendous opportunities to make giant strides as envisioned by the

first president of Ghana, in the fields of Education, Industry, Commerce, Agriculture, and now Information Communication Technology (ICT). Also sports and games have good paying returns. There had been many Government fiscal interventions in the past, to relieve Ghana of her economic plight which plagued her social strata adversely, and forced people to indulge in degrading activities for survival, instead of living up to their capabilities. The views of Dewey (1916) corroborate those of Antwi (1992, a) that "Education is the fundamental method of social progress and reformation." Hence any educational system that lacks steady growth and fails to impart positively on the promotion of society's daily needs, as well as negates finding solution to social challenges affecting her people, does not worth retention; but should be ruthlessly examined. The researcher thinks that, Ministry of Education shared the vision reported by Graham, (1975) of the late Nkrumah, who asserted, "we must look to industry and agriculture to provide an increased standard of living, but these two sectors of the economy are dependent on an adequate supply of suitably educated and trained manpower. In a sense education takes precedence over the other as the mainspring of the economic progress".

The researcher supposes this idea and advice expressed above have not been fulfilled by successive regimes after Ex-President Nkrumah. The former President's perception of what would build a vibrant economy was education which could promote manpower support for industrialization, backed by a vibrant agricultural enterprise. Today the nation is reaping tremendous yields from the President's Special Initiative (PSI) into cassava planting. This PSI project has

created avenue for the youth to earn wages by attending to the large plantations, through weed control, applying inorganic chemicals, harvesting and portorage. The farmers receive special financial packages in terms of bank loans, to pay for labour and purchase other farm implements, and inputs with greater relief. Finally, the cassava processing company-Ayensu Starch Company-employs hundreds of idle hands into better organized labour force, for production of starch for export. The profit gained is either ploughed back into the expansion of the company or banked. Such high profits are invested by lending through the banks to individuals and even the Government. Other striking supplementary benefits from the cassava (PSI) project derive from the by-products of the raw material in form of:

- (1) Gari, which is a staple on the local market, and
- (2) Animal feed, to support agricultural husbandry.

The nation could obtain similar achievements from industries e.g. salt production for Ghana's own oil refinery and export to the rich oil producing states; if formidable objectives were pursued through intensive and realistic evaluation of the human resource capabilities. Or will there be another special PSI incursion into the industrial sectors of product design and manufacturing approach? Investment in industrialization particularly oil production technology and agriculture will likely yield among other cost benefits the following:

- (i) Cheaper products to enhance worthwhile living in a free market economy.

- (ii) Minimize importation of second-hand goods that weaken Ghana's economy; and conserve foreign exchange reserves to boost capital investments.
- (iii) Establish new jobs for the TVET graduates and unemployed youth to invigorate the national economy.
- (iv) Encourage the processing of local raw materials into finished goods for export and to earn foreign exchange. Kyereme (1998), contends that, such a policy if well implemented would also promote:
- v) Food surplus and oil products for export to enhance macro-economic balance on Ghana's international trade.

Gross Domestic Product

Miller (1985) believes that TVET has a heritage orientation to a workplace, and assurance of employment, and this serves as evidence of success of a program in TVET. In the same vein the Association of Principals of Technical Institutes in a communiqué issued to the Director-General of the GES, after having identified objectives that would promote quality technical vocational education; suggested among other things 'the need to equip students with knowledge and skills that would enable them enter into gainful employment in either industry, commerce, or agriculture'. (APTI, 2004)

Opportunities for Capacity Building Through TVET

The large human resource potential of the nation, it appears was left untapped, and that capacity building of the highest natural resource of Ghana got skewed into academics whilst majority of people who cannot enter into that

system, waste ostensibly in urban towns and cities, despite limited educated workforce which the country has. Akpakli (2003, Aug.) estimated an annual data of over 100,000 post JHS and other SHS graduates, who search for jobs they have not trained in. Currently, youthful desperation and idleness continue to fan crime against society, indicating it is time government acts swiftly to curb this state of indignation by opening up capacity of institutions which can provide requisite skills for the useful occupation of most post school lads and lasses. Besides this unhealthy development, the episode of brain-drain amongst the few professionals who have utilized national resources to train at higher levels of education is another threat. These and other factors are pointing to the need for new policy changes in a direction in which Ghana can start harnessing or rendering expatriate services to other nations for the benefit of the individual and state.

Self Employment and Training Facilities

The concept of self employment is rooted in the expectation that every able-bodied person must work. Self employment has diverse meaning to various cultures. Whilst it is drudgery and unpleasant to some, who must employ others and means of machinery to accomplish it, others engage in work habits because it brings out intrinsic enjoyment of work activities and appreciation of products and economic out come.

Self employment can be sustained when it is based on individual's systematic pursuit of self set objectives, valued by oneself and desirable to others. Secondly consistent structures must be in place to entice the youth into worthwhile activities rather than being lured into waywardness and obscene jobs.

Knowledge in fundamental entrepreneurial studies has started in some second cycle schools, and this is ideal but the attendant danger is that students in our educational system learn any curricular for the sake of gaining academic laurels but are not characterized by the values and attitudes inherent in such bodies of knowledge for adoption and practice.

Some vocationists who entered practical skills training and got certified as competent master-craftsmen also look up to being employed by organizations and placed on monthly salary. The writer advocates the strengthening of the small scale industry concepts in Ghana so that, potential tradesmen are identified, registered and empowered financially to work, through the small/medium scale enterprise loan scheme. They could produce goods outside the factories, yet have their products marketed through accredited agents and shops, by meeting international standards.

A Shift in TVET Training Policy

Another motivating factor bothers on the need for developing and enacting a national policy to provide a better co-ordinated management and structural changes within the TVET system in Ghana. TVET Administrators could ensure that such objectives are attained in a more favourable academic climate. Mereku (1998) believes that assessment can provide for all to develop their potentials, only if there is differentiation in assessment.

Boafo (2004) whilst addressing his compatriots at an annual conference of Principals of Technical Institutions proposed a competency based training (CBT) scheme as an ideal model for training in TVET. In his view the CBT approach

which is based on identified job competencies which are relevant to the needs of industries is a much more acceptable basis for training than the current 'supply driven' approach. His reasons for striving to meet high practical training standards which pertain in industry are: "industry which employs the trainees should best predict and assess the standards which are acceptable and constitutes industry's expectation for utilization". Also industry has the prerogative to digest same standards into training modules for implementation. On the whole the writer thinks that a deeper collaboration will be needed between industrial representatives and key personnel in the TVET, to make CBT proposal work.

There are variables according to Haddad (1995) which have tremendous influences on educational planning and policy formulation. In a government White paper on the New Educational Reforms Review Committee report : the Government upholds the view that by age 12 through 15, JHS graduates would be assisted to follow a programme at the SHS based upon their interests, aptitudes and abilities, whether this is in the general, technical, vocational, or agricultural streams. If the nation's concern now is about the 60% of Junior High School leavers, who cannot enter into higher levels of academic places of learning, and have to be channeled into TVET or other opportunities, we must be asking the Education Planning Division to state the basis for placing them into other educational establishments through available data about the students. Accordingly, an analysis of this sector may start with probes into identifiable factors whose understanding is of importance and relevance to the country.

Farojalla (1993). Haddad and Cooksey (1995) corroborates on the following key ideas as very important factors to consider in pre-planning a meaningful cost effective programme. They remarked that: professional competence of African institutions regarding educational planning should be opened to equal opportunities to enhance all entrants a fair development according to the individual's talents and capabilities. Such equal accessibility of educational opportunities they contended necessitates a fair play and equity in the distributive policy of educational resources. Also, resources should be provided to suffice entire tenure of a programme. This underpinning requires that, the policy should be internally and externally efficient so that resources are released in good time, and that these are appropriated by the schools for use. They also noted that, the cause of most policy break downs is in-sufficient resource allocation.

Afeti (2006, Jan.) reiterated similar view which was published in the "Daily Graphic" and captioned "Redesign technical vocational education". He contextualized that TVET alone would not provide all 'hands-on-skills' training that provide jobs or eradicate poverty but that good economic policies were vital for high quality products and services, which can sell in the global market. According to the Ghana Statistical service, there are very lean job opportunities in the country at the moment, but with vibrant economic policies some patented goods at least could be produced under bilateral agreement to stimulate utilization of local labour.

In the President's state of the nation's address reported in both print and electronic media, His Excellency, President Kufuor (2005, Dec) expressed

concern about the low, recovery of the national economy at 5.4% average growth rate. In the Daily Graphic's exposition, (ibid), when businesses develop and expand, with additional labour-market demands for technical and vocational training becoming paramount, then new job opportunities get created. This enhances more employment opportunities to actively create wealth in businesses, and so the incidence of poverty and low GDP reduces." For this to happen on a sustainable basis, TVET system must be labour-market relevant and responsive to the needs of the economy, equitable, high quality and efficient.

Society's Perception of Skills Training and Apprenticeship

This section describes some analytic tools that industrial psychologists do use to probe the environment in which the youth conceive ideas and prepare for work. It also includes views on parents, the individual, peers, elites, and the body public. Farnham & Pimlott (1979) observed that work is 'external' to some workers, not a part of one's nature, work is not self fulfilling but self denial, and seen by some as a misery that does not develop free physical and mental energy, but is physically exhaustive and mentally debasing; p 12. It is within such spheres, influences and social framework that a person decides on his career.

Career Indication Tests:

The complexities of an individual's choice of career would be best administered if training advisors and Principals have appropriate knowledge to diagnose and counsel prospective students' before placement. Aamodt (1999) pp. 86-88, cited the Critical Incident Technique (CIT) as, an inventory designed and first used by John Flanagan (1954) to discover actual incidents on job behavior

that indicate successful or unsuccessful performance of prospective client. Other industrial psychologists and analysts criticized the sole use of CIT as means of providing information about the perceptual, physical, mathematical, communication, decision making, and responsibility skills, needed to perform a job, and developed other tests which will be mentioned but not described in this study, such as the:

- (a) Knowledge, Skills, Abilities and other characteristics; termed KSAOs.
- (b) Job Components Inventory (JCI)
- (c) Threshold Traits Analysis (TTA) and
- (d) Fleishma Job Analysis Survey (F-JAS).

Unfortunately these inventories do not feature much in Ghanaian schools to guide the transient learners into a vocation. Also, sociologists discovered the importance of social factors relevant to hands-on skills development, such as the relationship between social class membership, and attending college with its associated peer pressure. Proponents of such theorists include Ginzberg, & Associates (1957) Super, & Berlin (1957).

Ginzberg and associates (1957) found that boys from low income families went through the same stages of vocational developments as did high income earners' boys. Yet there was considerable difference in their choices and stated reasons for them: – while the former conceived ideas of how to obtain higher level income than his parents or without accidents, the latter thought about entering institutions of further learning. As they developed to “realistic age”, their choices narrowed on to their chosen professions. Herman and Hansen

(1966) reported Stetler's data which suggested other factors such as urban residence, religion; ethnicity and educational motivation as being responsible for choice in vocation.

Samler (1961) criticized Rogers and Tough's (1992) psychoanalytic thought in entering a career. In his view "it was our growing curiosity concerning our own behavior that led to what many termed a clinical approach in vocational counseling". In this respect the counselor considers clientele's world of work, which the client with his unique picture of himself, and his particular identity, deems fit or opportune to enter.

The Absence of Occupational Information

Samler (ibid) explains further: "What concerns me and my co-workers is that, the same kind of rich consideration of personality dynamics that now dramatizes assessment and understanding of the client is not available in considering the role and function of work." In Samler's opinion, any worthy appreciation of a person's world of work should take into account the individual's roles in work, his self concept or identity, the exercise of his attitudes and fulfillment of his values, status, amongst other factors. A person's impression of what constitutes work would even help to match work to his self identity.

Caplow (1954). Roe, (1956). and Super (1957). establish that "Work is a way of life," that it affects the way we think of ourselves, the neighborhood or the environment, the clothes we wear, our leisure, friends and the values we hew or develop. In the same, way most Ghanaian children will uphold the view that: Children themselves have definite ideas about what they want to know about

occupation. Their ideas however, represent their current enthusiasms, which in turn reveal what they (students) are like now, rather than what they will be doing in future. They are still so involved with these enthusiasms than to be concerned with the realistic choice of occupation; and their possible choices keep narrowing down the range of future alternatives. (Blau, P.M., et al: 1954)

Also, the home is apparently a strong source which importantly influences children in vocational decision making processes. Children also internalize the values of the home, particularly attitudes and pronouncements of parent(s) dominating the home. Lipsett (1962) contends that parental influence is still deep, even when the child rejects such a vocation of the parent. Siblings equally (ibid) have impact on the career plans of each other. Super (1957) asserts that "vocational development is essentially that of developing and implementing a self concept". Lipsett explains this last idea as a coherent and unified system of items of interpersonal behaviors within a social context. Concepts such as: eminence, dominion, and prominence are useful factors that guide in identifying vocational traits in an individual, and these need to be matched with a person's environment in order to understand his /her vocational decision.

If the researcher may ask: does the involvement of our students in their current state blur their imaginations, anticipation and vision about their ultimate purpose of coming to school? And that they need to reappraise a self concept towards work in the final analysis? If the influence of the home is strong and parents in most homes are not employed in any gainful occupation, this should not impress their child/ward to come out of school, and not be prepared for the world

of work. The writer in relishing the last context then postulates: what then is the benefit of education for posterity? One of the purposes of the schools under the GES is to pass on societal ethics and the importance of dignity in hard work values to our youth. Preparing students for the work place implies: to provide a solid foundation of academic and social skills in graduates grounded in the basics and demonstrating responsibility and accepted behavior. (Mujibul, H.S. 2004)

Challenging Demands in TVET

Miller (1985) argues that TVET has a heritage of orientation to the workplace, and frequently, employment serves as evidence of the success of a programme in TVET. It implies that students in TVET should be prepared for the world of work not only by having skills that will get them jobs, but also their subsistence in work and continuity in employment are vital; when the labour market changes. The 2nd International Congress on Technical and Vocational Education held by UNESCO in the Republic of Korea (1999, April) carried a major recommendation on what society should expect on TVET. "The 21st century brings a radically different economy and society with profound implications for technical and vocational education (TVE)". TVE systems must adapt to these key features which include globalization, an ever-changing technological scenario, the revolution in information and communications, and the consequent rapid pace of social change. The knowledge-pace society, which these changes are bringing offers exciting new modalities for education and training.

Aidoo-Taylor (2004) asserts on the topic "Relevance of Information Communication, and Technology (ICT) in TVET", that the above innovation introduced suggests TVET has a crucial social function of training students to adapt and meet successful contributions to the workforce and the learners' survival in the labour market. TVET does not exist independently from the society it serves, and if TVET fails to maintain an on going relationship with society, students who complete programs will find that they are not adequately prepared for existing productive roles.

Developing Competencies through Training

An American survey, into identification of skills that would be the most valuable in the future of an organization defines "competency" as a "sub-set of a skill". To be competent implies (ibid) to be able to perform a task to the required standard again and again. Furthermore, prospective employees are certainly expected to possess ample set of skills relevant to an employer/ organization, to be able to fit into work. Industrialists are also concerned with the term "competencies" as explained by Carysforth & Rawlingson (1996). They explained it as "ability to manage a (complicated) project or task from start to finish without losing concentration at my stage" e.g.:

- (a) To perform work to expected standard in good time.
- (b) To perform task to agreed dateline for delivery.
- (c) also, have a 'weather eye' on competencies one could develop to help one's future prospects, and
- (d) develop ability to co-operate with other officials or staff.

Accordingly, present day job advertisements list details of main competencies and capabilities required of prospective applicants, which are described and used to tailor the applicant's suitability. Campbell (1983) emphasizes: "by identifying such requirements, it is possible to select tests, or interview questions that will determine whether a particular applicant possesses the necessary knowledge, skills, and abilities to carry out the requirements of the job. Needham, and Dransfield (1990) discussed the 'nature of work' as an important determinant of the quality of working life, and indicated that, there is no simple pattern of 'good' and 'bad' jobs, 'dull' and 'rewarding' ones. It takes the individual's evaluation of a job, as influenced by factors of personality traits and preferred group (peer) styles.

Furthermore, it is also difficult to see how employee(s) can be trained, unless the requirements of the job are known and pursued in phases. According to Wexley & Latham (1991) training is the "planned effort by an organization to facilitate the learning of job related behaviors on the part of employees" These behaviors are knowledge, skills, rules, concepts and attitudes (Goldstein, I. 1993).

Having discussed competencies required in training, it is important to establish reason(s) for which business organizations resort to training the staff they had scrupulously selected. Ganzel (1997), Bassi, Van Buren (1998) assert that, organizations realized that: "the ultimate purpose of employee training is to maximize their technical potentials that directly result in increases in an organization's profit margin". The writer infers that such staff training helps the employee/student get accustomed to unproductive elements and other wastages of

valuable resources, and equip them to eliminate inefficiencies. Such opportunities impart high professionalism amongst workers. To sum this section up, Aamodt (1999) reported the concerted views of Schneier et al (1988); and Sleezer (1993); Mc. Cahon, et al (1996); about the importance in determining training needs of organizations through the following approaches:

- (a) Organizational analysis.
- (b) Task analysis, and
- c) Person analysis -

Hence in addition to economic advantages, employees need in-plant training for developing their work related skills to compete with other organizations for customers, or in times of introducing new technology and or plant.

Post Training Concepts in Work Establishments

Mac William and Kwamena, Poh (1959), noted the basic economic and social problem facing mankind is that of funding for, developing the human capital or manpower. In educational planning, and for TVET administration in particular, a lot of other resources are expended, making the sector a high capital oriented sphere. Kyereme (1998) states that "we get satisfaction from the consumption of real goods and services, which can be bought but that of labour cannot be purchased, it is only exploited somehow." It is therefore disturbing to find a high volume of our national resource such as labour wasting through the following means; although these can be circumvented.

Un-Employment: Government statistics quoted unemployment rate as high as 35% in Ghana in a Daily Graphic publication (2000). Also, UNESCO

(2000, Aug.) bulleting defines the concept of unemployment as “people who are physically fit, and active, looking out for job, which is not available, and therefore are rendered economically in-active”. In a bid to arrest the mass unemployment in Ghana, the Government has decided to provide work for the youth through the National Youth Employment Programme, (NYEP) set up in 2007 to curb the threat.

Under-employment: The International Labour Organization -UNESCO (2000 Aug) defines the concept of under-employment as the shift of a skilled person from capable job into another which is not commensurate with his training. In context, when highly trained personnel say, Financial analyst or manageress leaves her job in the Ministry of Finance and Economic Planning, solicits loan from the banks to resettle at the market, and engages in trading activity. Notable causes of such scenarios are not rare. Once a worker is dissatisfied with the conditions under which he/she is operating but feels his/her physiological needs are guaranteed, one would take to options that bring him/her relief rather than challenges. The TVET administration has similar un-necessary problems inherent in its system, where the GES fails to heed advice of figure heads. Such workers do relocate into industries from TVET, and it has become very difficult for the GES to entice men from industries to instruct the youth in Technical Institutions. Additionally, it implies people who are unsatisfied/discontent within an organization yet have the pre-requisite skills and qualification but lack the chance of a fulfilling work avenue, and all the same unable to be ‘self employed’, constitute under-employment.

Self Employment: In local interpretation the concept means working by oneself. Here, one could own the business enterprise wholly, or as the term applies elsewhere in the USA, working at home but for a company. People who have expertise in diverse fields of training but unfortunately cannot find regular employment; do organize to stay in active work by their own initiatives. This constitutes a "work at home" but in link with a central office, where one's products are made to standard specification to be purchased by a company for marketing. If we may delve into what happens to post-training concepts such as: under-employment, unemployment and self employment; their causes and effects might be clearer, but the scope of this research work will limit it for now.

Education for National Development

The notion of development connotes a positive change in the evolution of things; it implies a highly valued optional evolution rather than negative unfolding. Farojalla (1993) reported Dudley, (1969), whose inquiry into the issue of what constitutes development then, is very valid here. He serially asked:

"What has been happening to poverty?"

"What has been happening to unemployment?"

"What has been happening to inequality?"

And to add, what has been happening to skills training in a post Highly Indebted Poor Country (HIPC) such as Ghana?

We cannot assume a decline in response to these questions as "development", even if the per capital income doubles through them. Todaro (1982) contends that, in addition to improvements in incomes and output,

development typically involves radical changes in institutional, social and administrative structures, as well as in attitudes and sometimes customs and beliefs. The main institution responsible for contributing change to our social context is education. Antwi (1992, b), intuitively questions why African nations irrespective of the huge investments they make in education, continue to suffer under-development then? Are the tenets of good education out of tune with social enlightenment? The researcher sees Education and Work as a humane activity, and work is good for health reasons. Work brings decency in living, development and self actualisation. The structures of good education should promote and consolidate humane gains within institutions that develop work habits, and work ethics in society; rather than fulfillment of reading and writing per se.

Secondly, the issue of development must go with individuals who intend to contribute new-ideas to future practices; where ideas on national development connotes positive changes – a prestigious biased optional evolution which will promote a knowledge paced era. 'We cannot assume a decline in response to rhetoric on issues such as poverty, unemployment, inequality and marginalization when we consider questions of national development' vis-à-vis education and training for sustenance. Todaro (1982) expatiates that, beyond improvements in incomes and higher production outputs, development typically involves social and administrative structures as well as attitudes, and sometimes customs and beliefs. Education, the main institution responsible for change, itself requires constant changes very often. The main ingredients for a meaningful change are:

- a) the teacher or educator,

- b) the curricula,
- c) Policy plan of the government, and
- d) Society's inclinations.

The tenets of good education may not be out of tune with positive enlightenment however, acquisition of knowledge and skills coupled with strong technological orientation to curtail problems of all sorts and to enable the individual make a better living, as well as have decent control over his immediate environment are worthy good indicators of education for development.

Adentwi, (1999) cited Todaro (1982) in pointing out three indicators of quality, observable trait changes in the frontiers of a given nation, which accounts for good national development as:

- (a) The factor of raising peoples' living index through relevant economic growth processes, i.e. their incomes and services consumption levels of food, medicals, environmental control and education appreciates.
- (b) Creating conducive growth of citizens' self-esteem by establishing social, political, economic systems and framework that support their psychological growth; and
- (c) Enhancing peoples' degree of freedom; to freely choose from an increasing variety of options. E.g; political rule with security of peace, education, religion, and safety among other indicators of national development. In addition, there must be sufficiency of physiological needs of the citizenry. Furthermore, there ought to be general expression of satisfaction that people gain out of pleasantries which society finds within a management or

political system. Finally, there should be that explicit stimulus within the society in that, there is realization of intellectual, emotional, social, cultural, and spiritual up-liftment or encouragement towards fulfilling such dimensions.

Tanzubil, (2007, March 19.) in a pensive reflection in the Daily Graphic observed that:

....though various Governments have trumpeted their commitments to advancing polytechnic Education in the country, real action is yet to be seen. Poor perception of Polytechnic education in the country by the public had led to management and staff of Polytechnics being treated as second-rate employees by the tertiary education sector, and their graduates continued to suffer discrimination on the job market. (pp.11)

Education, the writer opines is the acquisition of knowledge and skills that enable individuals to make an informed choice into living. This would make the individual better placed in life with respect to information, knowledge, and skills, thereby making him/her responsible and conscientious of situations around him. The kind of education one has should empower him/her to move along with others, to accomplish hard work, broaden his cognizance and perception of issues, and then enhance our pluralistic co-

existence as one people of a state. The virtues of good education for national development entail the following:

Knowledge and skills that help to reduce poverty by creating wealth as individual and empowering oneself to make a living up to acceptable national standard.

- (i) Promotion of relevant knowledge, attitudes and skills that bring about technological, industrial and agricultural advancement, thereby reducing mediocrity.
- (ii) Sustaining the development and growth of rural industries so as to curb the rural urban drift and associated streetism.
- (iii) Moving the dependency rate of 40% on foreign donor support budget forward, by making it possible for more people to engage in productive work and render effective technological services.
- (iv) Promoting the individual's capacity through science and technology to relegate myths, poor customary practices and to entrench scientific knowledge to turn the national economy round.

Knowledge Paced Society and Future Technologists

The 21st century emerges with the 'blue chip' (ICT) technology permeating every sphere of life. New technologies continue influencing the way we live, do business, and most importantly affect the way we learn. Computerization has taken a toll on the economies of developed countries, and their labour markets have reported severe cuts in human expertise. Miller (1985) opines that: "Educators, business people and scholars need to realize that

tomorrow's citizens will need different kind of knowledge and skills."

Consequently this vision could be projected that by 2020, Ghanaian children in future will enter a workplace filled with fast changing or new technologies, hence their need to access knowledge, process information, think critically, make decisions and interact with others, will be the keys or tools in education for their success. Abbott (1988) enquires; "could the present day curricular impart significant skills, abilities and attitudes which the youth of future require then"? Indeed some basic schools are evolving new programs to accommodate the 'high-tech' students and capitalize on new technological capabilities, as new paradigm for education unfolds; as schools get inclined to meeting the challenges of future.

Miller (1985) indicates key needs for educationists to consider. The need to:

- (a) Utilize technological infrastructure to improve the learning environment.
- b) Implement professional development programs to help teachers adopt new instructional teaching practices that take full advantage of new pedagogical insights and technological capabilities; and
- c) Recognize students' new roles in the learning process; the need for active student learning; a transformation from teacher-centered to student-centered practices.

Furthermore, Miller reported Anderson, et al. (1964) on the role of communities and professional organizations developing new curricular themes for the twenty-first century, using an integrated inter-disciplinary approach that deals with authentic real world situations. As a result, it is ethical for our curriculum

developers to be innovative, helping children to develop their intellectual skills and work attitudes to confront both personal and social problems intelligently, with a sense of empowerment which is paramount. Gradually, some information technology is creeping into the business of developing countries. For example, in the recent Government white paper (2004) issued on Anamuah-Mensah Education Reform Review Committee Report, the government of Ghana intends to introduce ICT studies in the curricular of both JHS and SHS; (Article 11.5 p. 22). In fact some schools are already offering the subject in their quest to be abreast of the rest of the global village. Government has already made the commitment of pursuing an ICT knowledge paced society. Aidoo Taylor, (2004) thinks that industry and commerce are caught up into ICT adoption already, to increase productivity. It is imperative that TVET programs take into account the requirement of this new trend on the job market and in building the human capacity, make relevant curricular provisions for the near future.

Industrial Requirements and Training of Personnel

The objective view of this study is to heighten awareness of the low human capacity building in the country and suggest means of redirecting the youthful energies of those who by design or inability, could not continue with general education into fruitful ventures. Industrial, agricultural and commercial houses are major users of potential human resources in Ghana; efforts should therefore be made to expose students towards the needs of business organizations and diverse mode of staff training as a means of capacity building for youth.

Industries and organizations function by interacting with materials, energy, labour, market and funding. In spite of many specialties and varied products and services offered, most business organizations are mostly concerned with the above factors in order to fulfill their economic objectives. Besides the fiscal dynamics of the above inputs, labour will be discussed so as to link it with institutions of training: (1) in-plant training and 2) Classroom instruction.

Michael Young in Encarta on web reported that "in Europe, vocational education includes substantial elements of continuing general education; except those adopting the German dual module which is based on "apprenticeship" and general education. Conversely, British vocational programs are usually pursued by students with low prior achievements in general education. Perhaps this scholastic inability is the main reason why Ghanaians having inherited the British educational system, portray low regard for technical education. If the writer may ask, how brilliant are most of the students who shun technical and vocational education in Ghana?

The provision of vocational education is usually guided by syllabi approved by the National Council for Vocational Qualification, and referred to as the Competency Based Training (CBT) manual. C.B.T. training manuals are written in terms of what a student/trainee is expected to be able to do by the end of his studies in each training module. Michael Young noted that, in the late 20th century, vocational education programs trained far wider range of people than in the past – and very few applicants now obtain employment without any post compulsory education or training at all. He further observed that the new labour

market is complex; there are more jobs that require higher skills, but more new jobs are being created that involve very limited skills. Besides it, many more females have taken to vocational courses now than in the past. This change in attitude by the female gender is a reflection that, with expansion of 'key-board-based' and service occupations, employment is becoming more "gender-neutral".

Projections for Effective and Efficient TVET Delivery and Future Needs

The point was discussed earlier that it takes commitment of factors such as:

- (a) Access to educational opportunities,
- (b) Equity in educational resource distribution policy; and
- (c) Institutional arrangements for the management of the sector,

to build sound educational system. These will stabilize the system, make it devoid of curricular tinkering at the least opportunity and particularly when Government changes political office. The fact that there is a national strategic plan, whose implementation should make provision of TVET reputable, without unnecessary changes and interruptions in the near future is assuring. A good policy plan as set out in the Education Reform 2007 policy document should be developed, tested and adopted, in order that TVET meets the expectations of the youth and every one. The aim of a technical education strategic development plan should provide the needed levels of man-power at semi-skilled, skilled and highly skilled levels for Ghana's strategic development. Such man-power needs in their right numbers are relevant to ensure that current and future local or

primary, secondary industrial sectors and service establishments grow to serve as the bed-rock of Ghana's socio-economic anticipation.

The guiding of the youthful students into selection of occupational courses should be done by trained guidance and career counselors and at a time when they are developing through "Transition" and "Realistic" stages as observed by Ginzberg and his associates. In choosing a career, educational administrators rendering such immense services should understand how students match their preferences for occupation, and how such preferences are manifested.

Programs at Technical Institutions

It is good; TVET planners' focus on skills acquisition through a rationalized approach such that these programs are based on:

- i) Training material availability.
- ii) Secondly, on quality human expertise and
- iii) Thirdly, availability of monetary resources.

In the first instance, it will be candid to establish TVET institutions nearer to geographical sources of materials required for a particular training. This will imply that not all courses can be studied/available at all learning centers. The practice of offering similar programs in virtually all TVET centers should be discouraged. Also, TVET centers should be sited around geographical locations where needed support for 'on the job training' or required industrial internship is available. Such an arrangement would even reduce the burden of lack of certain machinery at the training centers. Hence the availability of work places nearer training centers is a way of maximizing the usage of rear machine tools and

equipment, since trainees could call at the plant to see and experiment through action learning.

Evaluation of Trainees

With the CBT module of training, which is a standard activity based teaching and learning process, the emphasis shall be on industrially acceptable skills and attitudes involving hands-on-work training. Evaluation of trainees' progress would be practically oriented. This is likely to reduce the degree of in-plant training employers give to newly recruited graduates.

Academic Progression

The current national psyche is on acquisition of academic qualification and paper certificates of the higher degrees for least work. Certificates are proof of one's competencies that assure employers about the individuals performances; but taking a cue from the American industrial practices, it is worthy suggesting deemphasizing paper qualification as the pre-requisite for technical works since the practice impedes inclusion and progression of "born artisans" or master-craftsmen who have extensive flair and competence in practical works, than people holding higher qualifications but who are incapable of performing the job. As a nation, it will be prudent to sustain TVET by removing all academic barriers for the social recognition and personal emancipation for those who opt for technical education. Educational planners and experts should be proactive, current and taking into consideration social circumstances that inhibit attainment of national development. E.g. planners should think of offering courses leading to the award of certificates, diplomas and degrees in the various craft based studies

like; - carpentry, welding, small engine propelled hand tools servicing, and machine tool design to reduce drudgery at work workplaces among others.

In sum, technical education which is vital for the socio-economic development and progress of Ghana, can not be over-emphasized. It is also obvious that technical institutions have lagged behind societal expectations. There is every need for TVET curricula to be redesigned, based on clear vision of curriculum developers to help children develop both intellectual skills, work attitudes; and the need to confront issues intelligently and with a sense of empowerment. This section guides educational workers into the many issues contributing to youth unemployment, disinterest in TVET to prepare for work; and the need for career counseling which is very important also to parents and the larger society.

CHAPTER THREE

METHODOLOGY

This chapter reports the procedures and initiatives adopted to obtain responses to the set of challenges that the researcher enlisted, including research questions for this study. The chapter is guided by knowledge of applied research, which makes it rather simple and thrilling to read. It is organized under problem setting of most students not desirous of attending technical institutions to prepare for work, and failing to find jobs upon finishing a course of training. The study identifies key municipalities and learning centers where elements of possible groupings exist, to respond to designed questionnaire. The 275 population to be understudied consists of students, scholars and educational workers. Two instruments were developed: questionnaire and semi-structured interview, in addition to literature review to answer the research questions.

Research Design

Rationale: It is common, everyday observation that most school leavers in Ghana, irrespective of their educational attainments in general education, tend to suffer limited job opportunities. Also, the potential groups of graduates apparently possess limited marketable skills, despite their high level of education; they are unable to enter wealth creation markets. This chapter seeks to find reasons for such dilemmas and identify the causes and effects on the individual and the nation at large for a possible redirection. In addition, the study aims at soliciting views from the public on some of the challenges such as causes of the:

- i) Low enrolment of students in TVET in Ghana.

- ii) Abject disregard for TVET, resulting in low educated skilled labour force,
- iii) Low employment avenues as affecting most of the variables in the study; and
- iv) The luring, catchy and influential marketing occupations which entice the youth, among others; will be considered.

For clear, easy to account for narration, this section adopts descriptive research to simplify methodology used for obtaining responses/answers to the stated research questions. Descriptive research has been adopted simply because collecting data within the society on the topic is pertinent to most respondents. By this approach, the researcher can find clues to answer research questions therein stated. This view is supported by Amedahe (2002) who supports Sarantakos (2005) among other writers.

The view of the researcher is that descriptive research has the characteristics of analyzing the relationships, differences and trends that contribute to the challenges in TVET. The method selected is expected to help expose the perception of the youth and most school leavers about TVET programs generally, and find out how to curb the problems enumerated in chapter one. These problems are attitudinal changes on the part of school leavers who constitute liability to themselves and society.

Strengths and Weaknesses in Descriptive Research

The topic under study is a crucial one to individuals, civil society at large and the Government. The methodology employed needs be appropriate, relevant and easy to be replicated. Again, the descriptive research method used is noted for its effectiveness in accounting for observations, description, questioning and reporting issues, or documenting situations as they naturally occur. It is expected

that through applied descriptive research method, the data collection, its interpretation and analysis will contribute to the reader's understanding of factors controlling the variables in the study. However descriptive research could be susceptible to distortions due to biases in sampling, measuring instruments or reporting, and for which matter strenuous effort would be made to guard against the inevitable by finally determining the correlation coefficient for the study.

Research Setting

The area of the study as suggested by the topic has a national scope to be surveyed. To cover a greater percentage of the setting would require not only substantial funding but also time. Hence for a break through the research sample will be simply purposive, and will include Greater Accra Region and other municipalities where there are both Technical Institutes and Senior High Schools to enable students make a choice. Also, most of the students understudied converge after schooling in the municipalities for limited job openings. Other sectors are Koforidua, Kumasi and Wa, in the Eastern, Ashanti and Upper Western regions of Ghana. This was done to bring the overall coverage of the research setting to about 30 % of the representative sample for the study.

The Population

The population initially consists of five strata with 250 aggregates, this was widened to 275 and included students who had also battled through thick and thin and are now in other tertiary institutions. Furthermore, it was relevant to add to the group, students who are perhaps frustrated about where to work in case they have completed their training. This was a scattered group to find, but some were involved finally. These were the target samples about which generalizations were

made. However, the accessible population was selected through stratified (random) probability sampling. A close examination of the population indicates dissimilarities among the initial strata which were made up of: students in SHS, tertiary levels, teachers as well as educational administrators. Table 2 beneath, shows the composition of the population.

Table 2

Sample & Strata Size

Strata	Target	Size Accessible	%
Junior Secondary School Students (Ada Foah)	15	10	66.7
SSS/Secondary/ Technical Students (Kinbu)	45	42	93.3
Polytechnic Students Kumasi/Koforidua/Accra	25	17	68
Ghana Institute of Journalism Students, Accra	15	12	80
Diploma Awarding Institution, Ada	10	8	80
Technical Institutes Students, Kumasi	25	22	88
Teachers (all levels) in Dangme East District	60	32	53.3
National Service Persons -Koforidua	15	13	86.7
Industrial Workers - Accra/Tema	15	12	80
Job Seeking Applicants - Accra	10	7	70
Asst./Heads of 2 nd Cycle Institutions	20	12	60
Educational workers/Administrators	20	17	85
Total	275	204	75.91

The writer was guided by the view of Sarantakos (2005) that, complete coverage of the target population may not offer substantial advantage over a sample survey since the latter addresses the survey population in a shorter duration yet with comparable and equally valid results of high accuracy; hence with a good response by the respondents through personal contact instead of mail services, we proceeded and administered the instrument. However, it has not been possible to find appropriate national statistics on the suggested strata for use; approximations were used to determine the sizes of the various strata. This arbitrary target sample sizes summed up to 275, out of which 204 respondents were accessible as indicated in table 2 above.

Stratified Random Sampling

The researcher applied simple random sampling combined with stratified sampling as a result of lack of homogeneous groups consisting of students at different levels of education, professional teachers, and workers in industry as well as Educational Administrators who dealt with policies. This stand has been supported by Amedahe (2002) on grounds that stratified sampling is employed where there is the need to represent all groups of the population.

Having widened the scope of the participating groups which matter in the study, and represented significant groups of the population understudied; e.g. National Service Persons and students at the Ghana Institute of Journalism, the researcher proceeded next to construct a sampling frame which has been worked out at 74.2 % of the target population; based on accessibility.

E.g. $\frac{275 \times 74.2}{100} = 204$ respondents.

This is the highest/actual number of respondents who provided data.

A list of sampling frame was numbered in accordance with a table of random numbers. (See appendix 'K') The constructed sample frame was used for each of the strata, and respondents drawn from each stratum. At this level the researcher applied permutation of the Random numbers of 001-210, as suggested by table of random numbers, to select the respondents who answered the questionnaire. Some numbers were drawn more than once during the process and had been tagged with an index in appendix 'L'.

Instrumentation

The following three methods were used to collect data for the study. Namely: Questionnaire, semi-structured interview and inferences from the literature review. These approaches were deemed enough for realizing the knowledge and clues which could answer the research questions.

Questionnaire: The set of questionnaire designed to collect data from the dissimilar groups described in the above section; has two sections. In section "A," the instrument was modeled on Likert scale and contained twenty-two closed ended items. The respondent was not supposed to identify himself by name, but expected to fill in a short Bio-data.

(a) Details of section 'A' bio-data for respondents included:

- (i) Age
- (ii) Sex
- (iii) Educational level
- (iv) Interest/ hobby.
- (v) Parental occupation

This bio-data revealed respondents' family background which was also an important variable that was likely to influence the respondent. Also the bio-data is to help TVET providers to note the circumstances and consequent decisions that prospective students are likely to make about choice of career. In casting the bio-data, the writer had considered the "classification factors" of: age, occupation, and educational level; which could lead to "prestige bias". Oppenheim (1973). In view of this, the Research Assistants were cautioned to provide enough sensitization on this state of biased information by respondents to counteract any self pleasing errors that respondents might make. In similar effort, leading questions as well as loaded words were scrutinized and minimized.

Additionally, elements on which the close-ended items in section "A" (Appendix 'A') were phrased included:

- (i) Goals of respondent's educational pursuit in life, -based on literature review.
- (ii) Choice of career depending on respondent's abilities and needs.
- (iii) Respondent's perception of work after schooling. (From points indicated in literature review).
- (iv) Knowledge of job placement, job avenues and other work place experiences and requirements, and
- v) Related items on research questions.

Section' B' (See appendix A,)

The open-ended items in the study, focused on optional socio-educational factors that TVET authorities should look out for in promoting TVET system and making it enticing to the youth.

Semi-structure Interview.(Refer to appendix 'B' and 'J')

There were six main ideas the researcher wanted to find out from industrialists and Administrators who responded to the instrument. Probes were made for details on factors that majority of the respondents drifted from. The main ideas are highlighted beneath.

- (i) The effectiveness, adequacy and relevance of TVET courses in Ghana Education Service, that impacts positively on society.
- (ii) Supporting infrastructure of TVET system, and the way forward.
- (iii) Quality of practical skills among TVET products, what are consumers' opinions?
- (iv) Facilitation of Government's assent on TVET provision, as contained in the recent white paper. (White paper on Educ. Review Report C'ttee., 2004 Oct.; Art 10.2 &30.0 pp7, 18.)
- (v) Maximizing the facilities of institutions and those in industries to promote training in hands on work skills; co-sharing of laboratory or workshop facilities; and lastly ,
- (vi) How to improve the perception of elite society about TVET.

Pilot Testing

Two pre-tests of 15 copies of the instrument per batch were administered to final year technical students who were immediately available to the researcher

in Ada Technical Institute between April 20th and 30th, 2007. Clarifications were made in ambiguous items and corrections effected. The open-ended items were however, discussed with two other senior staff who showed interest in the study. The two also assisted in the pre-testing and collation of the pre-test result for analysis. Thus the reliability of the instrument was determined to be $26/30 \times 100 = 86.7\%$, which was quite acceptable, at least at researcher's level. (Swetnam, 2002) pp 29-30.

Data Collection Procedure

The setting of the strata and the geographical coverage from where data was collected necessitated the training and orientation of two research assistants with the questionnaire administration in Kumasi and Wa respectively. In any case the respondents were met for the purpose of briefing them prior to administering the questionnaire, since personal deliveries offer greater advantages over mailed questionnaires; during which the following house clearing activities were ascertained:

- (a) Instructions were read and clarified by the research assistants who briefed the selected respondents. The respondents now worked together as larger group.
- (b) Misconceptions were clarified after reading through the research questions. Any ambiguities were addressed by the research assistants prior to filling the questionnaire.
- (c) Respondents were amply motivated, through a brief talk on the intention and aim of resolving the problem of youth unemployment, by involving

their views and suggestions in this research for a possible solution to the problems.

Administration of Questionnaire

The technique used to administer the instrument was by seating the group together. These selected respondents documented the questionnaires while non-selected elements were requested to leave the room. Some items and procedures were then elaborated upon by way of maintaining healthy rapport with respondents. Unfortunately, five respondents who complained that they had not finished, appealed for extra time for completing the documents. However they were un-able to return them at the Ghana Institute of Journalism before they left the campus.

Delivery and collection of completed document were enhanced to a greater extent. The group expressed their satisfaction about the one hour exercise which most said was their first time experience.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter presents the views of respondents. These views are organized under variables that have bearing on the research questions. It is further organized under the following units or stages (A-E), by way of summarizing the data which has been collected into broad themes which were determined through the questionnaire administered:

- A. Arrangement and coding of respondents' scripts, using 001-204.
- B. Ordering responses into a 3 band scale of "Agree", "Not sure/ indifferent" and "Disagree" and converting raw frequencies into percentages.
- C. Classifying data according to their inter relatedness.
- D. Statistical significance of respondents' opinion, as they relate to the research questions; and
- E. Presentation of themes and major ideas.

To pick and work consistently with the large volume of materials at hand, it was necessary to code each received questionnaire. The data was then tallied according to the Likert scale of "strongly agree, agree, uncertain, disagree and strongly disagree". Having obtained frequencies for each variable, the scale was contracted into a three band model. The five bands Likert scale was summed to three distinct bands of: "Agree", "Uncertain", and "Disagree". To achieve this, the frequency tallies for the options of "strongly agree" and "agree" were summed

together under the "Agreed" option, and likewise for the "Disagreed" option. This enhanced the frequencies of the options to be re-determined, and percentages were computed for all the items. This data will lead further to arithmetic and statistical estimations on the variables.

An eight point thematic checklist was developed as depicted in Table 3, beneath.

Table 3
Check List on Main Indices/ Themes

Index of Themes	Item/Variable
1. Pre-school ideas	10, 12, and 22.
2. Interest in a specified type of Education	Q1, Q5, Q11, and Q17,
3. Knowledge of occupations	Q3, Q4, Q8, Q9, Q10, Q16, and Q17.
4. Influences by peers, parents, and society.	Q2, Q7, Q12 and Q13.
5. Curricular orientation/ Policy	Q5 and Q14.
6. Policy effects	Q15 and Q18
7. Marginalization; and	Q6, Q12, Q13, Q19, Q21, and Q22.
8. Unhealthy infrastructure	Q6 and Q20.

The Bio-Data

Furthermore, the categorical variables of gender and age groupings of the respondents were codified into the SPSS spread sheet, with the following acronyms that define the variables; e.g.

Gender:	<u>Data</u>	<u>Code</u>
	Male	M
	Female	F
	Missing	m
Age:	15-19	1
	20-24	2
	25-29	3
	30-34	4
	35- and above	5

Similarly, educational levels of respondents were encoded as:

<u>Level</u>	<u>Acronym</u>	<u>Code</u>
Basic Education	BE	1
Second cycle –Grammar	SCG	2
Second cycle –Tech/Voc	TV	3
Diploma institution/Poly Technique- DIP		4
University Education	UEd	5

Presentation of Findings

First and foremost, the views expressed reflect on the seemingly possible trend and factual clues that suggested answers to the research questions.

Secondly, the findings were intended to assist other interested researchers considering replication of the study to imagine, follow and understand the data and to use it as a guide for future selection of Junior High School leavers who seek admission into TVET institutions. For most part, graphical illustrations were used to statistically express views respondents gave on the themes. The numerous charts and tables helped further to establish clearly inter-relationships between variables of interest and to enhance perception of the reader into discovering the relationships associated with the research outcomes for affirmative action.

Indices

An index is similar to an inventory except that indices usually consist of just one area of item(s). Index is a number of (dichotomous) questions scored together, on the assumption that they have something in common – Oppenheim, (1973): All items in the questionnaire were therefore classified based on the research questions and sub-topical statements. Respondents' opinions in the thematic check list at table 3 were further matched to the research questions/variables of interest. These inter-relationships require frantic effort to focus on this correlation studies to confirm how variable "x" relates to variable "y", and this raised very important questions regarding inter-relationship of most variables organized under indices/themes; e.g. is variable "X" related to variable "Y"? Or, how well does variable "E" predict variable "C".

Identification of Respondents

The analysis process continued with coding.

A) Each respondent was assigned a control number of 1, 2, 3... 204. This was to ease the reading and cross referencing of ideas (variables) and make picking of scripts consistent. Secondly, all codified categorical data and variables were inputted into the CSSPS spread sheet.

Respondents' Parents Occupations

The occupations of parents were then checked with respondents views to note family trends, with the outcomes presented in table 4 underneath. Also, the levels of employment connote status within an organisation, but not an administrative ranking.

Table 4

Parental Occupations

Parent's Job status	Code	Males	Females	Total
Self Employed	1	28	45	73
Primary Level Employment	2	23	12	35
Middle Level/clerical/Educationist	3	31	21	52
Executives/Administrators/Contractors	4	23	5	28
Bankers/Lawyers/Doctors	-- 5	15	1	16
TOTAL		120	84	204

These data were programmed into the SPSS spreadsheet to enhance views on whether, respondents would take after their parents occupations, particularly on job selection relationships between parents and children.

Presentation of Associated Variables

Table 5

Pre-School Notion

Question /Item	Agree	Uncertain	Disagree	%
Q10	87.23	5.32	7.45	100
Q12	82.45	4.26	13.29	100
Q22	75.0	10.64	14.36	100
Average	81.56	6.74	11.7	100

Every child forms sub-conscious ideas about other people and him/herself concerning future aspirations and development. These ideas of the child were usually reviewed many times prior to embarking upon them, for self actualisation and self realization. Children tend to inhibit these attributes or notions and live to manifest them at later age in life. (Ginzburg and Associates, 1957) The survey indicated that 81.56% of respondents agreed with these pre-school notions by which students could develop occupational ideas through his/her interest in other people. A disproportionate 11.7 % of respondents disagreed with the said view, whilst 6.74% were not certain about such a view.

Choice of Second Cycle Education

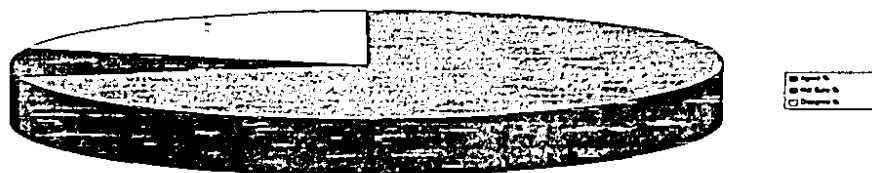


Figure 1: Pie Chart on Pre-School Notions

Table 6

Choice of Respondents' 2nd Cycle Education

Related Items	Agree	Not Sure	Disagree	%
Q 1	87.23	2.13	10.64	100
Q 5	53.2	6.38	40.43	100
Q 11	60.11	17.02	22.87	100
Q 17	85.11	9.04	5.85	100
Average Weighting	71.41	8.64	19.95	100

Table 6 indicates the choice of respondents on 2nd Cycle Education. The population studied, submitted that 71.41% of prospective second cycle students are strongly predisposed to pursuing secondary (grammar) education. From the questionnaire (Q,11) about 60.11% are in the know that entrepreneurs set up businesses that employ the youth after graduating, but since a good number of these entrepreneurs are not available in the business communities, job avenues are not being created; let alone encourage self employment. About 20% of the

respondents disagree with the above views. Later, we will explore their reasons by referring to any qualms from Section 'B' responses.

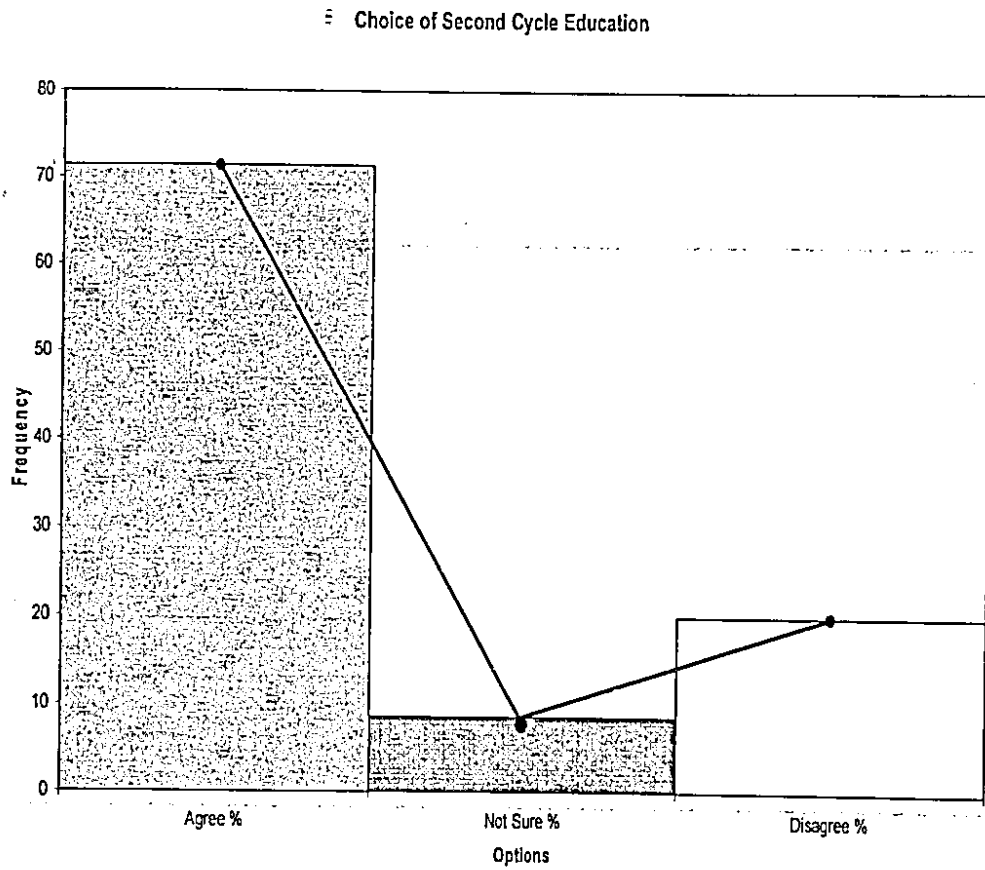


Figure 2: Choice of 2nd Cycle Education

The views expressed by respondents were represented by bars, whilst the slope between the medians in figure 2; shows a disproportionate consensus at a glance. From the chart, it is obvious; the choice that the average potential student(s) will desire is to attend a secondary school as against a technical institute; or a quasi vocational school. This chart should be treated with caution since it is not automatic that all average BECE candidates will desire and resolve to enter grammar type education. There are bound to be many intermediaries

between those who agreed or disagreed with the variable. Hence the slope is of utmost concern in the chart (figure2). The slope predicts the expectant decision of students with regards to a wishful choice for Secondary, Technical and Vocational courses.

Knowledge of Occupations

The chapter now reflects on how informed prospective students are about occupational trends, and then assesses whether learners do target any purposeful career by the time they embark upon second cycle education, or are graduating.

Table 7

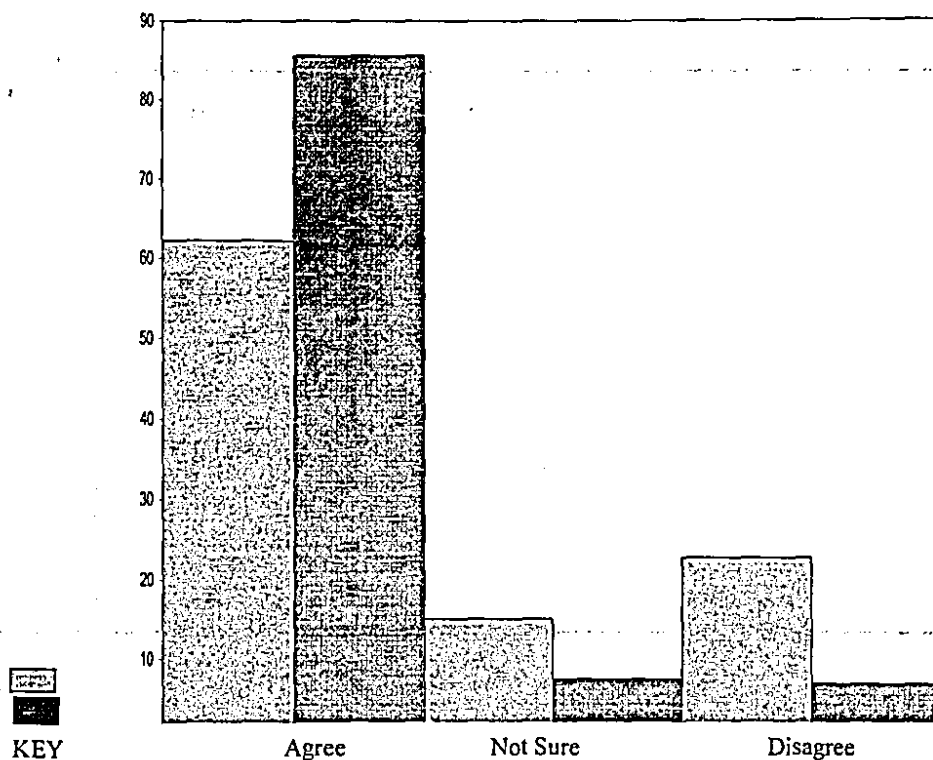
Occupational Information and Awareness

Items	Agree	Not Sure	Disagree	%
Q3	64.89	10.11	25.0	100
Q4	45.74	29.26	25.0	100
Q8	51.06	15.42	33.51	100
Q9	85.11	5.85	9.04	100
Q10	87.23	5.32	7.45	100
Q16	86.17	5.85	7.98	100
Q17	85.11	9.04	5.85	100
Average	72.18	11.55	16.26	99.99

A host of variables emerged under the largest coded sub-groupings on respondents' views. This is intended to iterate the purpose for education which implies: passing unto the next generation, ideas, skills and attitudes that sustain society. The general consensus was that 72.18% of the population think that most work avenues exist in industrial sectors for employment. The question arose as to

whether graduates from the Secondary Schools possess such marketable skills, to enable their useful employment on jobs for subsistence, can now be answered visually by reference to the bi-variate chart in figure 3 beneath.

A bi-variate data on work potentials



Items 16 and 17 indicate job placement favourites in respect of technical graduates.

Items 3, 4, 8, & 10 denote data on lack of appropriate skills.

Figure 3 : A bi-variate data on work potentials

An average of 11.6% of the respondents was not certain about whether graduates with relevant skills or not could settle for the job market. However 16.3% of the respondents expressed negative views about the existence of work avenues for typical grammar school lads and lasses. Table 8 is on social influence

Social Influences on Prospective Students' Selection Process

Table 8

	Agree	Not Sure	Disagree	%
Q2	48.94	11.17	39.89	100
Q7	85.11	4.26	10.64	1000
Q13	75.53	9.57	14.89	10
Average	69.86	8.33	21.81	100

Respondents indicated by 69.86% against 21.81% that, whilst guidance plays a decisive role in the choice of their college studies, largely, parents, relatives and peers who do not offer professional guidance service, contributed to their choice of college programs. The writer was circumspect to ask: does the predominance of the elite society play on the choice of program the youth pursue for career? A minority of 8.33% was uncertain that the social influence on them was affecting their choice of studies. The low response rate of 8.33% who were indifferent on the social influence might actually be ignorant of the diverse forms and effects of the issues at stake.

Chart on Group Ranking of Societal Influences

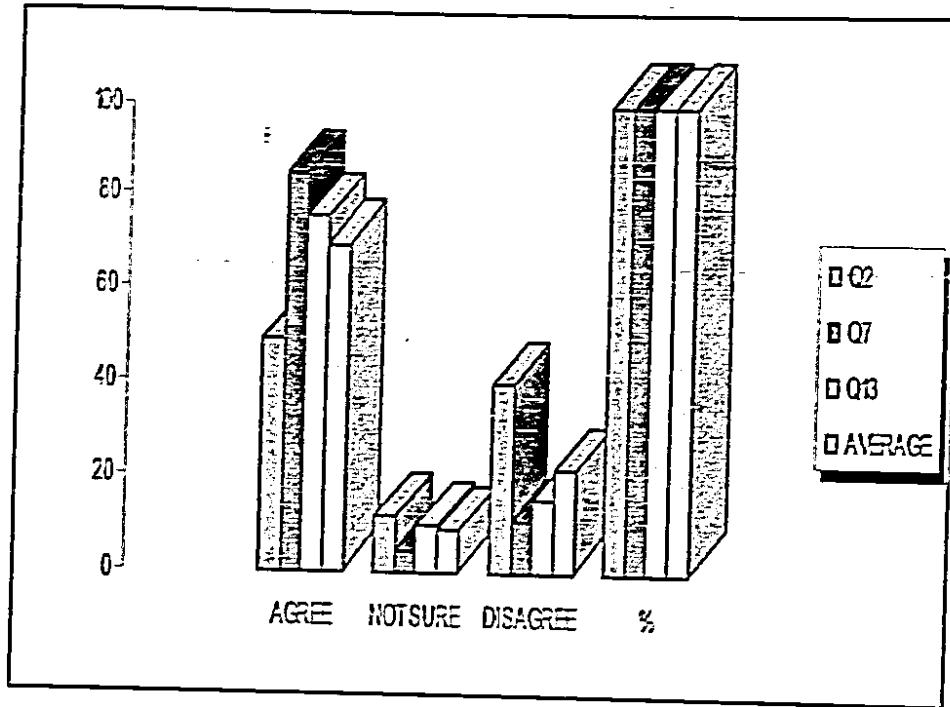


Figure 4: Grouped Bar Chart on Social Influences

Table 9 is on Curricula Innovation.

Table 9

Curricula Innovation

Item	Agree	Not Sure	Disagree	%
Q5	53.19	6.38	40.43	100
Q6	80.85	6.38	12.76	100
Q20	87.77	4.79	7.45	100
Average	73.93	5.85	20.21	100

The views of respondents at 73.93% do not corroborate with 20.21% of those who disagreed that the technical curricular was a factor responsible for the distaste in these institutions. This dimension will be explored further during analysis of section 'B', where the open ended items will be analysed. Within the limit of data collected, 5.85% of respondents were indifferent on the contributions of the curricular and did not support nor opposed the view that, an issue bordering on the curricular was a contributing factor to the low patronage of Technical Education in the Ghana Education Service.

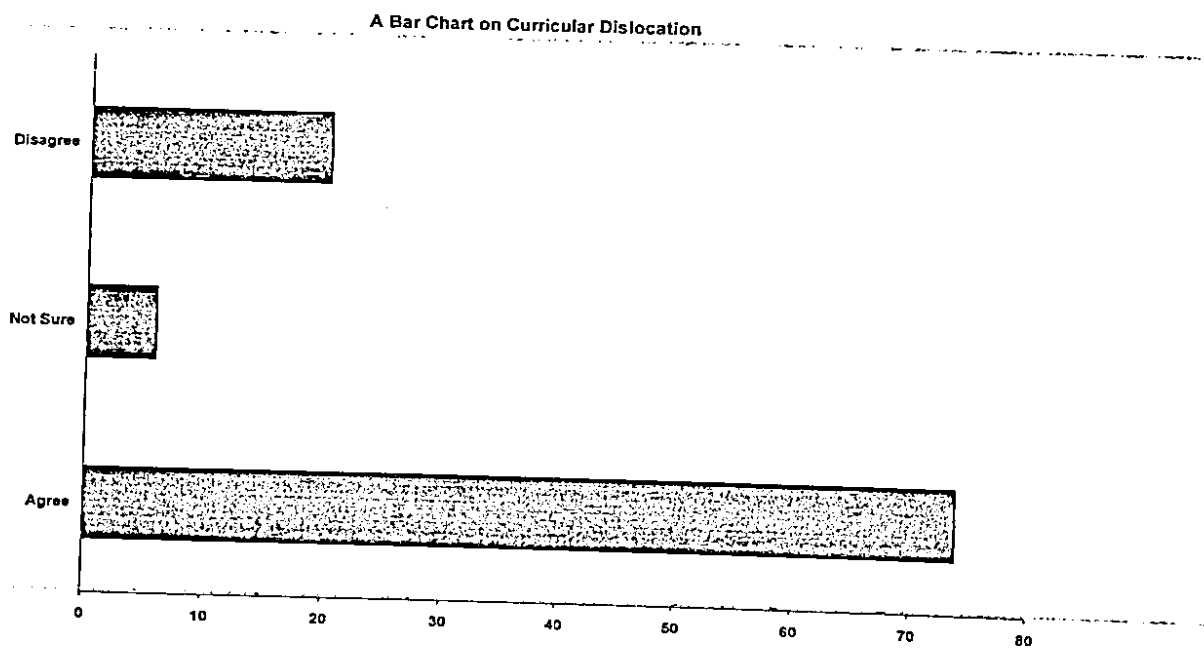


Figure. 5 : Bar Chart on Curricular Dislocation

Notions Affecting TVET Policy

The implementation of any good Education is guided by feasible Governmental accent or policy guidelines. With the advent of Technical Education into Ghana, there had been agitations from the public concerning its

desirability, affordability and sustainability. The researcher will like to portray the opinion of respondents here and then make comparative statements latter.

Table 10

Policy Concerns

Items	Agree	Not Sure	Disagree	%
Q14	87.23	6.91	5.85	99.99
Q15	81.91	10.11	7.98	100
Q18	82.98	8.51	8.51	100
Average	84.04	8.51	7.45	100

The frequency distributions indicated in table 10 that 7.45% of the respondents think that, a low patronage of the TVET institutions could not be

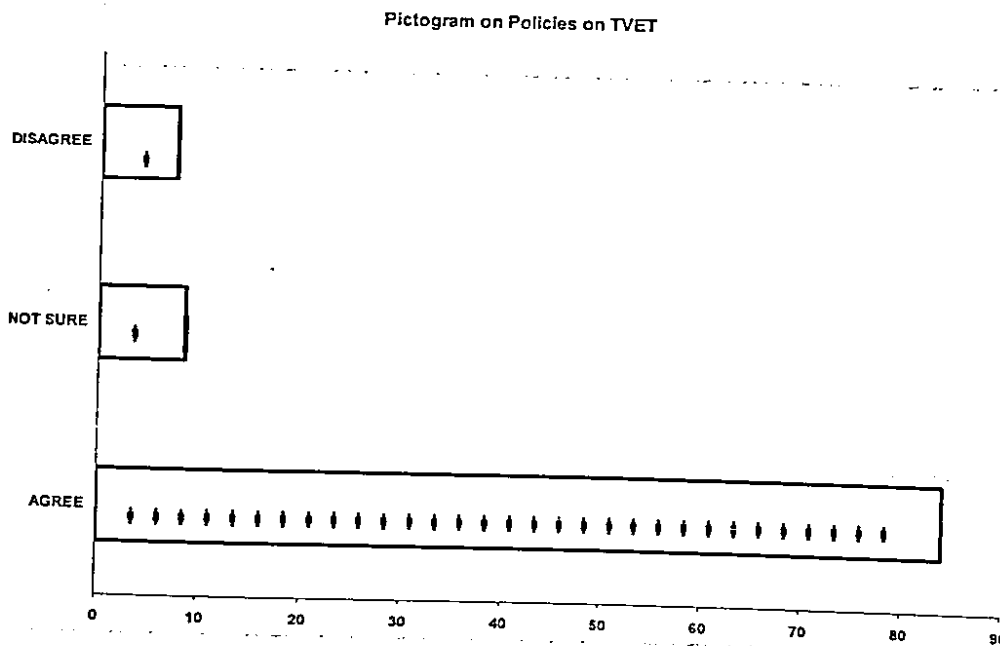


Figure 6; Pictogram on TVET Policies

attributed to policy issues. On the other hand 84.04% of the sample blames the situation of ineffective policy decisions of the GES, which is the principal

implementing agent. This situation will be delved into further when discussing some of the respondents' opinion.

Infrastructure

The basic infrastructure supporting institutional activities are very vital for development of education. It is therefore worthy to assess the view of respondents who had gone through formal education on how they felt in a less endowed educational establishments. An average of 81.21% thought that, lack of decent infrastructure was a contributing challenge to the low students intake in the technical institutes, as depicted in Table 11.

Table 11

Poor Infrastructure

Items	Agree	Not Sure	Disagree	%
Q6	80.85	6.38	12.77	100
Q20	87.77	4.78	7.45	100
Q22	75.0	10.64	12.77	98.41
Average	81.21	7.26	11	99.47

Children also tend to be curious about fantasy and aesthetic beauty of places they desire to belong. In table 11, 81.21% of respondents suggest that excellent facilities are needed to turn round the tide of unattractive, ill-equipped and less facility endowed TVET institutions. About 11% of the sample think otherwise, whilst 7.26%, are not assertive in this regard.

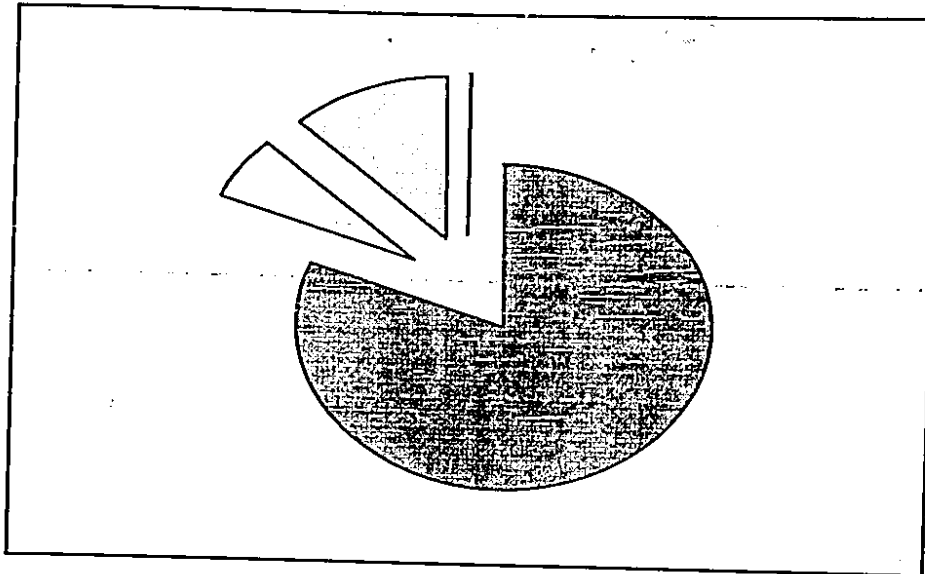


Figure 7: A Scartted Pie Chart On Infrastructure

Agree:- Red

Not Sure:- Yellow

Disagree:- Light Green

So far this chapter tries to show the relationship between; views of the youth in selecting type of continuing education they wish to pursue; whether secondary school education or Technical /vocational education, and how one's choice is related to one's social background and needs. Also most of the structured questions in the questionnaire were answered under various themes

discussed. The researcher now proceeds to analyse the open ended items in the instrument.

Significance of Respondents' Opinion and Variables of Interest

The following variables of interest were so far deducted from both the problems under study and investigative reports discussed:

- (1) Basic school performance background
- (2) Desire to enter specific work
- (3) Societal interventions, and
- (4) Unfavourable academic climate of TVET institutions.

It is most likely that section 'B' analysis will reveal other factors of interest to be included.

Identified Professional Goals

Respondents identified 17 initial occupational paths that they wish to pursue through education. This was re-classified to 12. (Appendix C) A few of the respondents had their professional goals implied from their hobby/interest domains since they failed to specify this. However 11 out of the 204 respondents were vague or not comprehensive. The highest occupations cited include;

Occupation	No. Off
(a) Clerical duties: (Accounting, Journalism and executive officers)-	22
(b) Civil Engineering -	31
(c) Academic services (Lawyers/lecturers/teachers) -	17
(d) Engineering (Mechanical, Electrical, Manufacturing, Mining)	37;
and	
(e) Fashion designing –	<u>12</u>
Total	<u>119</u>

A total of 119 respondents selected known professional careers as indicated above. The rest had made other choices which are detailed in appendix 'C'.

Training Avenue

On the question about which institution respondents would wish to attend in order to attain marketable skills, the data beneath, (table 12) is significant. From table 12, it is observed that the highest choice is on tertiary institutions. This table should be treated with caution since the strata included elements at the Polytechnics and other post second cycle schools. What the respondents deduced from the question was: the choice of institution for acquiring skills that would get them into employment and most respondents would want to pursue their field of studies up to tertiary levels.

Table 12

Basic Institutions for Acquiring Work Skills

Institutions	No. of Respondents	%
Polytechnic	58	31.18
University	70	37.6
Industry	42	22.58
Apprenticeship	03	1.61
Other Post SSS Institutions viz (Police depot, Sports College, GIJ, Martine Academy and NVTI)	13	6.98
Total	186	99.59

A scrutiny of the documented questionnaire showed a supported view expressed in the literature review that: most respondents were bent on formal

university attainment simply for academic prestige and to negate the misconceptions of society about people who acquire training in “hands on work skills”.

TVET Training Programme

It is anticipated that respondents would bring out various views involving the importance of TVET training programme. This is vital for deducing reasons why, the TVET programme was not appealing to many prospective students. The researcher summarized the views gathered under the following briefs or themes:

Table 13

Views on TVET

Respondents View on TVET Programme	No.	%
1. Early employment opportunity	30	14.7
2. Poverty reduction	06	2.9
3. Inculcation of the 3Hs as very important	40	19.6
4. Effective working skills acquisition	36	17.6
5. Self employment generation	43	21.1
6. Wealth creation	8	4.0
* Irrelevant responses	12	5.9
Total	175	85.8

Views sampled on TVET programme indicate that most youth, e.g. 85.8 % of the 204 population, realised that such training scheme is a potential contributor to employment generation, the purposes of which are explicitly to:

- (1) create wealth, to enhance production of goods and services;

(2) reduce poverty as a result of the wealth created , and

(3) promote growth of the national G.D.P. to boost the economy, among others.

Factors on Preference for Grammar Type Education

Among the many factors that respondents stated for preferring grammar type of education as depicted at Appendix "F", the researcher has reorganized them as in Table 14.

Table 14

Reasons for Studying Grammar Type Courses

Views	Mark	%
1. Dislike for practical work/staying neat and tidy	31	16.8
2. Better educational progression within shorter duration	42	22.8
3. Attend prestigious school with higher educational ambition	56	39.43
4. Studying enticing curricular with final exams in all subjects	13	07.1
5. Parental and peer advice	25	13.6
6. Ignorant about importance of grammar schools.	12	06.5
7. Vague responses	5	02.7
Total	184	99.9

Some contentious views made by some respondents are worth considering here. A respondent in script numbered 071 for instance stated that, he preferred grammar schools to TVET places of learning in order "to feel good and not odd amongst his friends". He continued with answering item (4) section B, "people have the notion that only unsuccessful students attend Technical and Vocational

schools....” The researcher wonders about how good it is for one to feel amongst his comrades for a period of 3 years of a transient learner’s preparation for life, compared to when one is in a saddle of responsibilities for the rest of life without support of good wealth creation avenue. He finally submitted his view that, “the Technical schools should be made to attract young students”, a view the researcher corroborates with.

Also, a respondent in script numbered 003 in reflecting over the same item of choice between grammar and technical institution contended that he would access the former based upon: “peer group influence, no encouragement from parents and the community. No interest, no prospects in the employable skills”. However, he realized that people must have to train in “Technical/Vocational institutions and in apprenticeship” programmes-(response to item 5, Section ‘B’)

The researcher observed from the respondents’ opinions that most prospective students did not make a first hand choice of the institutions of learning by personal interest, but relied upon influential factors such as duration, easy life style in school and school environment to arrive at a subjective assessment of their abilities in order to please others at large.

It is against this background that the services of the school Guidance and Counselling officers’ position although instituted has weak cutting edges in the orientation required for students. Career counselling would have to be proactive in changing the mind set of some students who think about what others think of their future career than how to attain successful career in life.

Unpleasant Factors about TVET

The initial responses to the questionnaire had 17 factors which were summarized into themes as shown in table 15 below. These themes were the most frequently appearing expressions in respondents' views.

Table 15

Unpleasant Factors about TVET

Responses	No.	%
- High funding cost due to practical works	42	21
- Lower cost benefits/rewards in employment	14	07
- Indiscipline students	10	05
- Lower societal perception	36	18
- Lower academic status/Invalid certificates	40	20
- Unfavourable government policies	24	12
- Lack of Guidance and Counselling services	11	05.5
- Prolonged courses	16	08
* Vague responses	7	03.5
Total	200	99.0

The responses summarized were quite explanatory but three of them shall be discussed.

High Funding: Very few respondents featured in the verbal questioning by way of good interaction and rapport section. However most of the polytechnic students opined that the system does not financially support their project works

and this has become one of the disincentives for TVET. At other levels the researcher gathered that, respondents meant the running cost of facilities in most technical institutions are high. From Administrators view point, both individual Heads of Technical Institutes, and the Association of Principals of Technical Institutes (APTI) had appealed to the Minister of Education Science and Sports through the Ghana Education Service Council to reduce this high cost of training, but over the years it appears GES Financial Administration still approves budgets at equity for running both the grammar type and TVET institutions. Way out is that, the Polytechnic administration could provide some material support to trainees during their practical examinations, or project work segments. This would promote better talent innovations and realization of artefacts produced. Artefacts of sound market standard could be sold to recover cost.

Secondly, the low academic status of the technical institutes cannot be shelved. In an interview with the Principal of Wa Technical Institute, (Appendix B) he narrated several challenges e.g. weak basic education background, the disregard for the technical institutes by the few students who excelled in BECE, the usual selection of technical institutes as a last option by candidates generally and the return of ex-BECE candidates who could not access grammar schools they desire to attend as some hindrances. Among the second cycle schools, technical institutes have enormous problems of lacking textbooks; students providing their own sources of materials in support of lessons among others. In addition, most times, the right quality of teachers are unavailable, and those available too are lowly motivated in view of lack of fringes and facilities: such as

P.T.A. sponsored staff packages, extra-classes remuneration, lack of free transport facilities and accommodation for teachers, among others.

Before wrapping up this unit the researcher takes a look at the comments in script numbered 070. It is about societal perception of TVET institutions, where the best national resource could be developed to impart real push on the government's economic reforms. "The perception is that 'dull' or 'lazy' students attend vocational/technical institutions. To avoid that, they will choose offering general courses at the SSS. The practical aspect is costly in that, you will have to get all the necessary tools and equipment for the course in a vocational/technical institute."

In responding to the pitfalls in TVET training, another respondent submitted. "The cost involved. The perception surrounding Technical/Vocational Institutions is that the Government doesn't pay much attention to that sector as it does to the other. (Unequal balance of both)." From the afore made statements, it is very obvious that proper effort and attention are not given to this sector for training the nation's work force for the industrial, agricultural and commercial sectors of the economy to spring up. The policies slated for developing the discipline tend to be unfavourable and needed to be re-distributed, if not scraped altogether. Public advocacy is strongly needed in this regard for injecting sanity into the programme content and infrastructure as well as giving face lifts to a good number of these institutions to entice most of the youth to consider attending one.

Self Employment Training Centres

Respondents have overwhelmingly indicated by 62.1% that TVET institutions are remarkable for self employment training. See appendix "H". However, with the introduction of new technologies all round the globe, it is absurd to expect that work skills promotion and transformation are obvious in the absence of ample training materials. A summary of the views held by some respondents on the need to meet the new standards in industry are included here, and training centres must importantly consider a good number of needs before embarking on training schemes. Respondents' views include:

- Education or training for life long learning requires career extensions to most training programmes up to tertiary levels.
- Self employment generation needs to be intensified to sustain interest in TVET training programme.
- Building a work force for posterity; and possible overseas voluntarism, has been suggested.
- Linking basic education especially to skills training by way of fulfilling the physiological needs of the youth is essential. Other areas of keen interest for the development of self employment training centres are:
- Cost and financing of skills training and institutional development, needs to be a shared responsibility between the individual, employers and Government.

- Need to strengthen skills and employment avenues for the youth to ensure survival in a macro-socio-economic growth of Ghana, through the Rural Integrated Enterprises Programme, were suggestions on TVET.

Other Suggestions by Respondents

Respondents were motivated to add any relevant idea(s) to those carried by the questionnaire. The views are summarized in Table 16.

Table 16

Data Analysis and Interpretation

Other Views	Marks	%
1. Solicit Government's encouragement, intensify public education on TVET	39	30.23
2. Stop the lip-ser vices to TVET development	17	13.17
3. Give TVET new orientation by reshaping the curricular, and examine all subjects for certification.	36	27.79
4. Make TVET programs more attractive with ample facilities.	12	9.3
5. Provide Guidance & Counselling services on job opportunities in industry.	25	19.37
Total	129	99.76

Having discussed section B analysis, two additional variables of interest shall be added to what was deduced at page 80; these two are:

(a) Uninviting TVET curricula with a resultant low ranking certificate.

(b) Linking prospective students (TVET) through Guidance and Counselling.

Answering of Research Questions

Research question (a) brings the concept of 'cost benefit returns' which interprets as the gains obtainable from TVET by the individual, the society, and the state economy. It is also perceived as the long term occupation of the practitioner's usefulness in solving problems with technical abilities which enhances his/her importance and contributions to himself, employer and economic rewards to sustain himself, dependants as well as the state. From the translated items in the questionnaire, table 7 elements showed that, respondents are aware that a study in TVET opens more avenues for the working class. Those who access TVET training turn to fit into multiplicity of job openings. This skill training idea with respect to "gains", as associated with the study indicates a correlation coefficient of (r); being remarkably 0.788; controlled at 2, with significance of 2 tails. This implies that there are modest/good returns from investing in, and patronizing TVET training. Such gains include: employment, innovativeness in product designing, and income generating.

(b) The second research question emphasized the useful roles that career guidance and counselors play. Literature review indicated that, government is supportive of SHS programme for individuals with capabilities, provided he/she has the interest, aptitude, and abilities. Everybody needs guidance and so the youth in education ought to be guided and counseled to enable them realize their full potentials in life. Respondents indicated in questionnaire items: 2, 5, 6, 7, 12, and 13; also

tables 5 and 8 that, JHS students lack guidance and counseling services not only at school, but also from the home. Peer pressure and the home, have taken greater influence on most JHS children's understanding of TVET. Also loose comments of society coupled with bad curricula and negligible logistics had not encouraged the students to be TVET favorites.

(c) On the third research item, the question of ensuring adequate training, teacher requirements, appropriate syllabi, and programme objectives, can be rebranded under "support services" which are central to the success of any academic/professional training. The question assesses the extent to which the provisions of support services are available. This is an indication of how planned, ready and successful, delivery of TVET programmes could be. Respondents answered this question in section 'A' items 6, and 20; also tables 9 and 11. Close to 77.57 % of respondents indicated that support services had not met their expectations, and that continuous neglect of such vital services could further deteriorate both physical and academic user facilities of TVET institutions.

(d) The fourth research question was analyzed and answered by questionnaire section 'A' and 'B' items respectively. Items: 2, 4, 19 and 21; also tables 10 and 16 as well as confirmation by literature review, indicated that five (5) important factors needed to be ingested into redeeming TVET programmes. All five views (captioned in table 16) for instance, summarized strategies by which most of the challenges in administering TVET courses could be curtailed; e.g. giving the system a new orientation by redistributive policy statements, government/ opinion

leaders putting stop to deceit and mere lip-service propaganda which ridicules than promotes the image of TVET, among other points were stated.

(e) Lastly the question of effective support service that could promote the aims and aspirations of TVET has been answered by respondents through questionnaire- section 'A' items 15, 18, and 20; and table 13 respectively. Respondents showed that, for now, a weak, ineffective support service is in place and causing distaste to not only the youth but all stakeholders. An average of above 86 % of respondents posited that the system could turn round if support services were delivered continuously and early in the schools; with teachers refreshed through orientation courses to adapt new perspectives in their training sessions for future use. Furthermore, the study in chapter two, pages 32, 33 and 50, identified core points for effective projection and efficient TVET delivery to meet future needs.

Two variables of interest (section B) were incorporated under predictor variables (x), and criterion variables (y). A statistical permutation of x and y will enhance the correlation coefficient (r) to be determined. Such established relationship requires as proof that, (r) has a significant value i.e. $r = \pm 0.5$ _ 1; to make it reasonable, dependent and acceptable. Heinemann, (1996) was reported by Amedahe, (2002).

However, Goodman, (1970) in Teach yourself books – Statistics pp 102 – 105 gives the statistical formula for Pearson's product moment correlation coefficient

as: Correlation coefficient: (r) = $\frac{\sum xy}{\sum x \cdot \sum y}$

$$\frac{\sum xy}{\sum x \cdot \sum y}$$

Correlation is the interdependence between two or more random variables.

The correlation coefficient (r) is a value between -1 and $+1$, i.e. $-1 \leq r \leq 1$.

The coefficient (r) is deduced from pairs of observations, say x and y ; and represented mathematically as: $r = \frac{\partial x y}{\partial x \cdot \partial y}$.

$$\partial x \cdot \partial y$$

Where ∂xy = covariance of x and y , and $\partial x \cdot \partial y$ = Standard deviation of x and y respectively.

Appendix I, interprets Pearson's Product Moment Correlation Coefficient (r).

Statistically $r = \frac{\sum (x - \bar{x}) \cdot (y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}}$

$$\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}$$

But since SPSS 12 computer application will give a much effective computation of 'r' we shall apply it to our variables of interest. Refer to appendix: M, N, and O, for the computerized values that range round 0.78 to 0.986 in particular for variable 2 controlled at 17, correlation has been very strong, with 2 tailed significance.

This research outcome has not varied from earlier studies done by Ginzberg, (1958) Super, (1962) and Herman, et al, who agree that individual's social class correlates highly with parents/siblings background.

The researcher's analysis shows that children of civil engineers and respondents whose parents were contractors indicated their interest in similar businesses. Refer to appendices C & E. With a correlation coefficient (r) of 0.567, it is significant to accept this variable of interest as factual, and that parents and siblings and the home do play a responsive role in the occupational decisions

of the youth. Mostly, these responsive roles constitute challenges that are inimical to a person's "vocalionalization" in unguided decisions. Any inspirations about choice of social class or career could therefore be strongly influenced if approached from the home, parents and relations that have been the child's role model in life. There is an equal strong trend observed from the bio-data that students who excel in the BECE are most likely to select grammar type of education for further studies than considering hands-on work skills training in Ghana.

Lastly, the view that TVET Administrators ensure that their aims, teaching and learning facilities and curricula development were oriented, showed a weak coefficient of 0.336 at variable 5 checked at 12. (Appendix) This weakness would not promote sound skill acquisition in the TVET centers. The view expressed in table 16, at page 90 on the need to solicit government's support and intensify public education for advocacy as a more plausible way of turning TVET into a master key for wealth creation, is explicit.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This chapter highlights findings, and concludes the investigation on the study. In this final chapter, the ultimate research outcomes discussed are summarily presented. It has been organized under views that respondents expressed and were supported by literature reviewed, as a clue to the attitudes of the youth towards TVET and its enabling environment. The conclusions drawn attach importance to the following: absence of career guidance services in schools, low input of teaching and learning materials in the classrooms and workshops, the wasting human resource, all of which are considered to be relevant to stakeholders.

The fact that, there are many unpleasant factors in TVET institutions, which render the work of administrators an inevitable futile effort, resulting into low public acceptance is worrisome. The study identified that, beside clerical duties; too many students are usually left out of any preparations for the world of work, after their initial education. This instance is believed to have been so as a result of the absence of trained Guidance and Counseling officers from the scene. Since schooling has purposes to be fulfilled in the life of both the individual and the state, it is necessary that the MOESS enacts policy to provide career counselors in the District Education offices, to advice on hands on work skills for

students and help them to develop a career path, taking into consideration their academic abilities; even for those who cannot continue with formal education. Such a policy should enjoin parents to support the trainee along side any government subvention.

Secondly, the study observed that, most trade schools are in terrible state of disrepair which makes them unattractive to the youthful learners, coupled with worn-out training facilities which suggests that, something is obviously out of place in that system, for which a number of austerity measures needed to be addressed for improvements in the TVET system. It has further been observed that Ministry of Local Government and the District Assemblies in particular do not play effective roles of encouragement by repairing and maintaining of all school infrastructures to entice prospective learners to enroll in TVET. Serene environment, effective teaching and available amenities in schools are vital to allay the fears of most students that, they have enrolled in an endowed institution where learning can take place.

The study perceives the problems of obsolete equipment in laboratories as well as non-supply of basic text books, libraries without books and outmoded curricula as factors which defeats the objective principle of a good school. The researcher thinks that, these vital resources can be made available if the GES increases the training grant for TVET, so that the sector could import some essential items under national urgency, to answer the concerns and challenges posed in administering TVET in a contemporary educational system. Also, it is important to eschew stigmatization of TVET as a system for the 'academic never

do wells'. Factors that will stop society from passing on negative mental settings such that, others will perceive goodness in promoting human resource development through TVET are required from the media, politicians, the clergy, and all stakeholders in education.

Subsequently, a number of ideas raised by respondents have been catalogued for interested student researchers, who may want to embark upon further investigations to consider, and so begin by asking relevant questions about these challenges. Educational Administrators and politicians could also use the study as food for thought, so that their actions and implementation strategies would have bearing on ideas that have been researched into rather than rhetoric.

Existence and Need for Removal of Unpleasant Factors in TVET

The unpleasant factors inherent in TVET, which respondents stated under appendix 'G' and set out in table 15, are considered to be the real sources of low motivation and lukewarm attitude towards the discipline. A scrutiny of the unpleasant factors indicates both internal and external issues that under lie the challenges in TVET schools. Some of these concerns include:

- (1) Lack of academic user facilities viz, laboratories, libraries, textbooks and other educational in-puts.
- (2) High funding cost of technical education in view of the practical training materials students require.
- (3) Low initial academic certificate(s) after a prolonged study; which is the main cause for which society perceives technical courses with indignation.

(4) The parochial operational policies in place have been a disadvantage to TVET. These policies entrenched division or unhealthy competition between the general and TVET programs of study. E.g. the testing and certification of combined subjects with its attendant problem of out dated curricula in TVET, as against single subject examinations in the secondary system, let alone the disregard for TVET as a career preparatory means for work in particular.

(5) Also the scale of salaries drawn by products from TVET has never encouraged the average student to wear the blue coat.

In appendix "C" on 'career focus', respondents identified 12 occupations which when scrutinized reveal 3 which flexibly lend their practice to self employment generation. These are: Fashion designing, civil engineering and aspects of social services – food and hospitality trades. The practice of mechanical engineering trades at a level could also be self employable. It is laudable to resource these trades by providing investment packages for developing them so that, learners would be proficient to establish self/private businesses after training.

Another idea of concern is about the skills training centers. The number of skill training institutions are woefully inadequate and have to be increased from the present 26 to about 75 or the existing institutions will need to undergo physical expansion of their infrastructure in order that they could absorb the thousands of unfortunate JHS graduates into profitable skills training. This expansion project requires good educational planning to ensure that training

courses do not become a bother to prospective TVET trainees in future. The expansion programme will also require government's commitment of heavy funding but it is a surer way of promoting relevant work habits among the youth, should they not become menace to society in future.

Conclusions

Human capital if properly harnessed goes to determine the efficiency with which capital investments are made and production is carried out. Human capital accumulation is even more important than physical capital in a sense that, the refined expertise of artisans creates wealth for the state. Weak human capital in the forms of low levels of educational attainment, and virtually low technical capacities constrain national development and gross domestic product growth (GDP). A reduction of problems and challenges to skill acquisition in TVET will significantly impact on enhancing the versatility and efficiency of the labour market. An investment in human capital formation also enhances growth for industrial businesses and technological innovations through higher technical capabilities of workers. In its finality, people's income and service consumption rises appreciably, and these act as a stop gap for reducing poverty.

For TVET to succeed in creating the needed impact on the country's investments in productive drive to boost her economy, social groups such as the teaming youth who lack avenue for higher general education after the Basic Education Certificate Examinations, must be trained to perform some kind of decent economic activities. Investment in target groups of people becomes most important for the following reasons:

(1) National economic growth will depend less on natural resources, which are being depleted and are subject to global price declines – particularly crude mineral exports.

(2) Investment in TVET reflects directly on individuals and society's development and averts poverty by improving on people's income status.

Efforts therefore to boost human capital formation in the country must cover a broad front in TVET, health and water development endeavors.

Recommendations

The study discussed challenges which impart negatively and hinder free access to TVET and its administration in the GES. Although the Government tries to provide a level field for interested students to have free choice of career oriented education, long held traditional belief and bad views on TVET institutions continue to thwart effort. The writer believes most of the problems enumerated could be resolved by implementing the following recommendations which would lead to significant improvement in the country's human resource development drive and capacity building:

1) The Ministry of Education needs to support TVET delivery through favourable redistributive policies. E.g. providing scholarship and educational materials by way of encouraging the youth into hands on work training.

2) The weak linkage TVET has with industry which is the utmost consumer of skilled personnel should be strengthened through possible internship for students on holidays. This will make up for any sub-standard practices in

their training and predispose learners to gains and achievements in industry.

- 3) TVET staff and curricula should be evaluated and upgraded periodically, e.g. every 5 years, in order to promote effective training in the skills that industrial development demands.
- 4) The present mode of assessment in Technical Institutions should be revised to writing exclusive subject examinations, at an acceptable standard of the National Accreditation Board.
- 5) The Ministry of Education Science and Sports should endeavor to develop at least three technical institutes per region into a technological center of excellence where the basic infrastructure and academic user facilities will be inviting to the youth, to train.
- 6) In view of the need to build capacity of most technical institutes, the MOESS should consider re-branding some TVET courses and make them attractive to interested students. This could eliminate the human resource waste of post BECE graduands.
- 7) Teacher / staffing qualification and industrial experiences of most skilled trainers are woefully inadequate. Rigorous attention for skilled teachers' selection should be made in order to entice possibly, men from the industries into teaching.
- 8) It is very important to strengthen career Guidance and Counseling services in the District Directorates of Education to play consultancy roles to the many JHS students and others who showed interest in education for work.

REFERENCES

- Aamodt, M. G. (1999). *Applied industrial and organisational psychology*. Belmont: Wadsworth publishing Co.
- Abbott, R. (1988). *Guidelines for the review and internal development of schools* (2nd ed). New York: Longman.
- Adentwi, K. I. (1999). *Curriculum development: An introduction*. Kumasi: Wadate Printing press.
- Afeti, G. (2006, January 18). Redesign Technical Vocational Education. Accra: *Daily Graphic*. P. 1.
- Aidoo-Taylor, N. (2004, November). *Report on relevance of ICT in TVET*. Takoradi: Unpublished APTI Conference Report.
- Akpakli, C. (2003). *The Educator magazine*. Accra: Ministry of Education (MOESS). pp. 12-16.
- Amedahe, F. K. (2002). *Notes on Educational Research*. Cape Coast : University of Cape-Coast. pp 74-107.
- Ameyaw-Akumfi, & MOESS (2001). *Policies and strategic plan for the Education sector*. Accra: Unknown publisher.
- Anamuah-amensah, J. (2002 Oct.). *Report of the President's Committee on Review of Education Reforms in Ghana*. Accra: Assembly Press.
- Anderson, B. E. & Nilsson, S. G., (1964). Studies in the reliability and validity of the critical incident technique. *Journal of applied psychology*. 70 (4)

- Antwi, M. K. (1992a). *Education, sociology and Development in Ghana*. Accra. Unimax Publishing Ltd.
- Antwi, M. K. (1992b). *Education work and development*. Accra: Unimax Publishing Ltd.
- A.P.T.I., (2004). Communique on quality of technical education: Annual general meeting of principals of technical institutes conference report. Takoradi: Unpublished report.
- Attah, E. T., Agyenim-Boateng, E. O., & Baafi-Frimpong, S., (2000). *Educational Management and Administration*. University of Cape Coast: Unpublished Work.
- Bassi, L. J., & Van-Buren, M. E. (1998). The 1998 ASTD state of the Industry report. *Training and Development*. 52. (I) 21-43.
- Blau, P. M., Gustad, J. W., Jessor, R., Parnes, H. S., & Wilcock, R.C., (Eds.) (1956). *Occupational choice: A conceptual framework*. *Industrial Labour review*. 9, 531- 540.
- Boafo, J. S. (2004) *The importance of C.B.T. in practical assessment*. In APTI Conference Report. Takoradi: Unpublished.
- Bottery, M. (2000). *Education, policy and ethics: Trowbridge, Wiltshire-Gt. Britain*: Cromwell Press.
- Budu-Smith, J. (2004 November). *Report on competency based training*. APTI Conference Report. Takoradi: Unpublished work.
- Campbell, J. C. (1983) *Using job description to increase job performance*. Nashville: James C. Campbell & Associates.

- Carysforth, C. & Rawlinson, M. (1996). *Administration* (3rd ed.). Bristol: Heinemann.
- Claire, S. & Marie, J. (Eds.) (1959). *Research methods in social relations*: New York: Holt.
- Caplow, T. (1954). *Sociology of work*. (5th ed.). Minneapolis: University of Minnesota Press.
- Dewey, J. (1916). *The school and society*. New York: University of Chicago Press.
- Director-General (GES) (2003, May 23rd). *Vocational resource centre project*. GES: Accra. Unpublished.
- Duodo, F. W. K. (2003). *The school Administrator*. Kumasi: SOSFAC Gh. Ltd. pp 70-124.
- Farnham, D. & Pimlott, J. D. (1979). *Understanding industrial relations*. Guildford. Billing & Sons Ltd.
- Farojalla, S. B. (1993). *Educational planning for Development*. Hong Kong. Mac Millan Press Ltd.
- Flanagan, J. C. (1954). *The critical incident technique*. *Psychological Bulletin*, No. 51, pp. 327-358.
- Ganzel, R. (1997). Winner takes all: *Training magazine*. 34 (II), pp 40-54. New York: Wadsworth Publishing.
- Ginzburg, E., Ginsburg, S. W., Axelrad, S., & Herma, J. L. (1957). *Occupational choice: an approach to general theory*. (7th ed.). New York Columbia University Press.

- Goldstein, I. L. (1993). *Training in organizations*. (3rd ed.) Pacific Grove. CA: Brooks / Cole.
- Goodman, R. (1970). *Teach yourself books: Statistics*. pp 102-105. Bungay, Suffolk. The Chaucer press Ltd
- Graham, C. K. (19975). *History of education in Ghana*. London. Frank Cass and Co. Ltd.
- Haddad & Cooksey (1995). *Educational planning concepts..* New York: Commonwealth Press Ltd.
- Herman, J. P. & Hansen, J. C. (1966). Vocational guidance and career development. Toronto, Ontario: Collier Mac Millan Ltd
- Herzberg, F. (1966). *Work and the nature of man*. London: Staples Press.
- Hicks, D. & Slaughter, R. (Eds.) (1998). *Futures education year-book..*London: Kogan Page.
- Johnson J. D. & Scholes, F. (1989). *Exploring corporate strategy*. Hemel Hempstead. Prentice Hall.
- Kyereme, K. S. (1998). *Ghana's development problems; reflections solutions*. Kumasi. Catholic Press.
- Kuffuor, J. A. (HE) (2005 Dec;) National economic recovery forum. Accra: Graphic communications Group.
- Lipsett, L. (1962, January). *The Personnel and Guidance Journal*. 40, (5) 432- 37. New York: University Press.
- Mac William, H. O. A. & Kwamena Poh, M. A. (1959). *The development of Education in Ghana*. London. Longman group Ltd.

- Mc Cohon, C. S., Rys, M.J., & Ward, K. H., (1996). *The impact of training technique on the difficulty of quality improvement problem solving*. Industrial Management and Data Systems. (Unknown Publisher).
- Miller, S. R. (1985). *Technology based learning in United States elementary schools*. Michigan: U. M. I. Ann Arbor Publication.
- Ministry of Education. (2001, July). *Policies and strategic plans for the Education*. Sector. pp 18-33. Accra: Unknown publisher.
- Mereku, K. D. (1998). Differentiation in secondary schools curriculum: implications for the BECE & SSSCE. In CCTA colloquium Accra: Qualitytype Printing & Graphics.
- MOESS (2004 October). *White paper on the report of the Education reform review committee*. Accra: Advent Press.
- Mujibul, H. S. (2004). *Challenges of educational technology*. New Delhi: APH publishing.
- Needham, D. & Dransfield, R. (1990). *Business studies*. London: Mc Graw- Hill Book Company.
- Oppenheim, A. M. (1973). *Questionnaire design and attitude measurement*. London: Heinemann.
- Opoku, J. Y. (2002). *A short guide to research writing in the social sciences and education*. Accra: Ghana Universities Press.
- Peters, H. J. & Hansen, J. C. (1966). *Vocational guidance and career development*. London: Collier Mac Millan Ltd.

- The Republic of Ghana Report. (2002 October). *Meeting the challenges of education in the 21st century*. Accra: Adwinsa Publications Ltd.
- Roe, A. (1956). *The psychology of occupations*. New York: Collier Mac Millan Ltd.
- Rogers, M. & Tough, A. (Eds) (1992). What happens when students face the future. *Futures Research Quarterly*. (8) 4, 9-18. Page.
- Samler, J. (1961). Psycho-social aspects of work: A critique of occupational information. *Personnel Guidance Journal*. 39, 458- 465.
- Sarantakos, S. (2005). *Social research*. (3rd ed.). New York: Palgrave Mac Millan.
- Schneier, C. E., Guthrie, J. P. & Olian, J. D.(Eds),(1988). *A practical approach to conducting and using the training needs assessment. Public personnel management 17*, Chicago: University of Chicago Press.
- Senge, P. (1990). *The Fifth discipline*. London: Century Usiness.
- Sleezer, C. M. (1993) Tried and true performance analysis. *Training Development*. 47, (11).
- Sogah, W. (1998).. *Curriculum for craftsmen*: Accra: Unpublished Work. .
- Super, D.E. (1957). *The psychology of careers*. New York: Hapers & Bros.
- Swetnam, D. (2002). *Writing your dissertation*. (3rd ed.). Trowbridge Wiltshire: Cromwell Press Ltd.
- Tanzubil, C. (2007, Mar 19). Youth employment or punishment. *Daily Graphic*. P. 11.
- Taylor, F.W. (1911). *Principles of scientific management*. London: Harper & Bros.

- Todaro, M. P. (1982). *Economic development in the third world*. New York:
- Twum-Barimah, K. (1976). *Education at the cross roads*. Kumasi: University Press:
- UNESCO (1999, April) *2nd International congress on TVE. Rep, of Korea: UNESCO/ Ed. Publication.*
- UNESCO (2000, August). *Report on technical vocational education on human resources*. Hong Kong: UNESCO/ED Publication.
- Van Meter, D. S. & Van Horn, C. E. (Eds) (1975). *The policy implementation process-A conceptual framework*. Administration & Society. Chicago Illinois: Sage publications Inc.
- Wexley, K. N. & Latham, G.A. (1996). *Developing and training human resources in organizations*. (2nd ed.). New York: Harper Collins.
- Whitaker, P. (1998). *Managing schools*. Guildford: Biddles Ltd.
- Williams, V. (1995). *Towards self- managing schools*. Trowbridge: Redwood Books.

APPENDICES

Appendix A

Questionnaire

TOPIC: CHALLENGES IN THE ADMINISTRATION OF TVET IN GES

INTRODUCTION:

The research questions are intended to help find solution to the many challenges that plaque Technical and Vocational Education delivery in the Ghana Education Service. Although you may accept the premise that Technical Vocational Education offers learners practical skill and knowledge to enter into early employment than general education, it takes most students a second thought to decide on training in Technical Vocational Education (TVET). The Government white paper issued on the Anamuah Mensah (Prof) report (2004 Oct.), now targets the TVET Sector to be revamped so as to redress some of the factors that hinder students choice into TVET. This move will enhance TVET students, opportunities to start in careers such as entrepreneurship, product designing, Civil Engineering, other Engineering trades and-then possibly secure employment as young professional and be productive citizen in Ghana.

The researcher would appreciate your good gesture if you kindly document / complete this set of questionnaire, which will inform and enhance the education policy maker's decisions and the citizenry at large. Thank you.

INSTRUCTIONS:

- i. There are two sections in this questionnaire marked section 'A' and 'B'.
 - ii. Attempt all items in section 'A' by (√) ticking your response appropriately.
 - iii. In section 'B' state freely your opinion on "any" number of the given items.
- Please return the completed questionnaire to the Administrator of this form promptly.

SECTION 'A'

FILL IN YOUR BIO- DATA:

- (a) Age:..... Gender:..... (M)..... (F).....
- (b) Level of Education:.....Grade.....
- (c) Occupation of Parents: (i) Mother.....(ii) Father
- (d) Your Hobby/Interest
- (f) Your Career Choice/Discipline of Study (Self)

Item (S) Choice/ Response

	Strongly Agree	Agree	Uncertain	Disagree	Strongly disagree
Most average Students desire Secondary Education more than Technical / Vocational Training.					
Guidance and Counseling Officers do explain type of works / career to JSS Students before they select a second cycle school programme.					
Most secondary school graduates do not find employment because they lack marketable skills.					
The STEP Programme which was meant to curb unemployment was poorly patronized.					
Most learners do not desire Technical Education because of the practical subjects which they do.					

	Strongly Agree	Agree	Uncertain	Disagree	Strongly disagree
Technical Skills training idea is relegated in the JSS because schools lack both teachers and workshop facilities.					
Usually Parents/Relatives/Peers do influence students' choice of courses into second cycle schools.					
There are more job openings in industries than commercial houses for students with marketable skills.					
School leavers who can not find employment normally undertake obscene jobs e.g. street serving.					
Unskilled School leavers are compelled to do any menial jobs to sustain life.					
There are rare opportunities of establishing businesses in Ghana due to limited numbers of entrepreneurs.					
Most elite parents do not encourage their wards into Technical Education in Ghana.					
Societal misconceptions about Technical Education gives people a bad taste of such institutions.					
A way of promoting Technical Education is to encourage industries to have a say and hand in the training of students.					
A new TVET policy must redirect the public to government's efforts of national capacity building toward prospective future.					

	Strongly Agree	Agree	Uncertain	Disagree	Strongly disagree
Technical Education promotes earlier job placement in industries than general academic studies.					
Information about "work" if handled properly with young learners would better enhance JSS students' choice of education.					
Good wealth creation policies would uplift Technical Education and reduce poverty.					
Disregard of TVET sector by elite if continued will threaten government's poverty reduction plan.					
For a breakthrough in TVET, Technical Institutes with excellent facilities are required to train students.					
In-service training should not be undertaken by students only in factories but be extended to include TVET staff.					
Female friendly facilities should be placed at the disposal of females in all TVET training centers.					

SECTION (B)

Attempt answering all questions in this section briefly.

1. (a) In line with your interest / hobby, what educational goals or profession do you consider ideal for yourself?
.....
- (b) State the establishment where you wish to train in fulfilling the above professional urge.....
- (2) How vital or important is training of JSS/SSS graduates in a technical or vocational institute, where they acquire relevant work skills?
.....
3. For which reason(s) do most JSS students not like to choose technical institutes but select or prefer doing general courses at SSS ?
.....
What are the unpleasant factors about technical vocational education and training that makes the scheme unattractive to you?
.....
- 5 Where must people train to become self employable if they could not gain public service or civil service employment?
.....
Contribute any other information which you care to provide on the topic.....

Appendix B

Interview with Principal, Wa Technical Institute

Prelude: (After introduction fraternity)

I must appreciate you for granting me this opportunity to enquire from you possible solutions to some of the problems or challenges faced by you and others in TVET management. I must assure you that your personal identity may not be publicized, if you desire it. To add, this exercise is to help find solution to the topic "Challenges in the Administration of TVET in the GES," which is a dissertation assignment for a Master in Educational Management and Administration programme. Thank you for your kind collaboration.

Ques. How do you assess students' willingness into TVET?

Ans.: Zealously. They are willing to study in a Technical Institute when admitted, since there will be no other avenue for continuing their education.

Ques. What role do parents play or what societal interference do the young learners encounter?

Ans. Not so much but some guardians do impress a choice upon them.

Ques. Are students attracted by the facilities in your Institute?

Ans. No, facilities don't encourage at all. But their desire to do useful work after education appeals to them. Their counterparts are doing pupil teaching whilst they get into meaningful skill employment that is a career. One wishes that the GETfund authority should be allowed the freedom in planning the development of school structure without government interferences of better schools here and there. The District Administration mechanism is also just looking at first cycle schools and distressed institutions.

Ques. How do you relate the choice of student's course to his primary educational background?

Ans.: Most brilliant students will first and foremost wish to enter a secondary school. They do so because they want the community to regard them as fine scholars.

The group of students that chanced mostly and opted for TVET has either failed to gain admission into a secondary school and will not want to sit at home. The courses they study are just arbitrarily chosen-either because somebody closely related to him/her had passed through that course successfully.

Ques. How regularly does the TEU collaborate to revise the TVET curricular?

For a long period of say 10-14 years. In fact the curricular reviews had not been regular and that industry had out paced training. This made some products not desirable in their chosen career.

Ques. How successful have your trainees satisfied their practical orientation?

Yes, if we can impart positively on industry then we should entice men from the industrial front to share in the training of our products.

Secondly the course materials such as books and laboratories should be adequately stocked with the right course materials.

Appendix C

Professional Goals Identified by Students

	Number
Clerical including Accounting and Journalism	- 22
Administrators/PROs/Consultants	- 05
Manufacturing/Mining	- 06
Musical / Sports	- 08
Academic Services: Teaching/Lecturing/layers	- 17
Technical services: Catering, carpentry (1)	- 08
Maintenance Engineering	- 17
Medical (Doctors & Nurses)	- 04
Military/Police	- 05
Civil Engineering	- 31
Electrical Engineering	- 13
Fashion Designers	- <u>12</u>
	<u>148</u>

Appendix D

Training Institution and Importance of TVET Training Program

Training Institution: To Acquire Skills	Responses
Polytechnic	- 58
University	- 70
Industry	- 42
Apprenticeship	- 3
Other Post SSS Centres	- <u>13</u>
	<u>186</u>

Appendix E

Importance of TVET Training Program:	Responses
Early employment	- 30
Poverty reduction	- 06
Self emancipation-3H acquired	- 40
Effective skills acquisition	- 36
Self employment	- 43
Wealth creation	- 08
Outmoded	- 02
Vague responses	- <u>12</u>
Total	- <u>177</u>

Appendix F

Reasons Respondents Gave for Preference of General Courses – SSS. Score %

•Dislike for practical work and to stay tidy	31	16.2
•Better educational progression and shorter duration	42	20.6
•Attend prestigious school with higher education ambition	56	27.5
•Enticing curricula with final exam for all subjects	13	6.4
•Parental and peer advice	25	12.3
•Ignorance	12	5.9
• For academic never do wells	22	10.8
• Lack of laboratories, and other Teaching Learning materials/ • funding	74	36.3
• Low motivating (least employment avenue/distasteful • curricular)	23	11.3
Total	<u>298</u>	<u>147.3</u>

Some respondents stated multiple factors; hence the tally of 298 against 204 population.

Appendix G

Details on Unpleasant Factors about TVET

- High funding cost in view of practical training materials	42	21
- Low cost benefit/rewards	14	7
- Indisciplined students	10	5
- Low societal perception	36	18
- Invalid certificates; low in academic/status	30	10
- Lack of most academic user facilities	14	7
- Unfavourable government policies	24	12
- Lack of G & C Services	11	5.5
- Prolong course duration	16	8
- Vague	<u>7</u>	<u>3.5</u>
Total	<u>204</u>	<u>100</u>

Appendix H

Self Employment Training Centres

Institutions	Score	%
TVET	126	62.1
Post Secondary Institution	12	05.9
Apprenticeship	35	17.2
Scientific Research Institution	2	0.98
Vague responses	<u>28</u>	<u>13.7</u>
	<u>203</u>	<u>99.88</u>

Appendix I

Statistical Formulae on Pearson Correlation Coefficient

Pearson's Product Moment Correlation

Coefficient usually represented by r is calculated from the formula

$$r = \frac{\sigma_{xy}}{\sigma_x \sigma_y}$$

where σ_{xy} = covariance of x and y and

$\sigma_x \sigma_y$ = standard deviations of x and y respectively.

$$\text{So } \sigma_{xy} = \frac{\sum (x - \bar{x})(y - \bar{y})}{N} = \frac{\sum xy - \bar{x}\bar{y}}{n}$$

$$\sigma_x = \sqrt{\frac{\sum (x - \bar{x})^2}{n}} = \sqrt{\frac{\sum x^2 - \bar{x}^2}{n}}$$

$$\sigma_y = \sqrt{\frac{\sum (y - \bar{y})^2}{n}} = \sqrt{\frac{\sum y^2 - \bar{y}^2}{n}}$$

\Rightarrow

$$R = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

Qualitative interpretation of Pearson's Product Moment Correlation Coefficient

(r)

The descriptive level applied to r , varies some-what in meaning with the author using it. However there is a fairly good agreement among authors that the coefficient r : is from:

- (a) 0.00 to ± 0.200 denotes negligible relationship
- (b) ± 0.20 to ± 0.40 denotes low correlation.
- (c) ± 0.40 to ± 0.70 denotes substantial or marked relationship.
- (d) ± 0.70 to ± 1.00 denotes high or very high relationship.

Appendix J

Summary of Interview Granted By Mr. J.K. Apprey (Principal of Kumasi Tech. Institute) – 0244150731

Prelude: (After introduction fraternity)

I must appreciate you for granting me this opportunity to enquire from you possible solutions to some of the problems or challenges faced by you and others in TVET management. I must assure you that your personal identity may not be publicized, if you so desire it. To add, this exercise is to help find solution to the topic “Challenges in the Administration of TVET in the GES,” which is a dissertation assignment for a Master in Educational Management and Administration programme. Thank you for your kind collaboration.

Ques. How do you access students’ willingness to study in TVET courses?

Ans. TVET has practical undertakings and this bothers students not interested in practicals. To practice theory successfully and willingly means the learner should be ready to undertake corrections in practical training activities and willing to adjust his/her manual expertise in order to become skillful. Since TVET requires competence, learners cannot rely on reading theory and doing mathematics and science exclusively to pass. It is herein that the will power to do TVET courses counts really.

Ques. What are some of the disincentives about TVET to your In-take group of students?

Ans.: First and foremost is the un-clear avenue for academic progression in their line of studies compared with other colleagues. Remuneration and incentives that others refer to in society, do not enthuse young graduates into TVET. Lack of recognition by society about TVET in the home, churches and public statements by Politicians and other figure-heads fail to motivate the students. At a point TVET patronizers feel humiliated for

venturing into the hands on-skill training that will build this nation up to the taste that people have for good artifacts from developed nations.

Ques. How do you relate the choice of a students' course in TVET to his basic educational background?

Ans. The choice should depend on academic abilities combined with in depth interest, but this is not the case in Ghana. The best grades get mostly to Secondary School. Rarely do brilliant students with high interests in TVET get to Technical Institutes. Most of the intake students fail to get to where their interest lies. They usually depend on unguided or misguided pronouncements of others view.

Ques.: How do you think TVET programmes could be improved upon in order to attract mass intake?

Ans. Why mass intake? Does it promote quality? Mass intake sometimes imply whether they are good or bad materials for training. I think motivation of our learners is paramount for all, even for girls to go into male dominated sectors. Secondly people should look at the question that: they merit from school, such that with enhanced competencies they feel good and confident to win jobs for a career. And also learners must be encouraged to undertake live projects with supervision coming from industry and outside, to build up their confidence level in the world of work.

Ques. Mention 3 factors hindering the delivery of TVET and suggest a possible solution to these factors.

1. In-adequate funding
2. Non-functional/ineffective equipment
3. Lack of experienced staff.

A perceived solution rests with public pronouncements made by: The President of the Republic of Ghana and Association of Ghana Industry who mentioned that special packages commensurate with those in industry will attract the experts from industry into TVET training.

In this Global village, our training equip should be similar if not exactly what prevails in industry. Our resource centres must be sited for consultative purposes for training on the job and fitted into a geographical area where normal, regular jobs can be attended to.

Funds should be adequate enough to prevent mediocre training, or partial exposure.

The result is that students become half baked. Thank you.

APPENDIX K

Table of Random Numbers

Column	0	1	2	3	4	5	6	7	8	9
Row										
01	44689	54994	14911	62414	78085	18910	39772	00017	01178	13563
02	56811	20730	65177	89748	84459	06043	72385	84402	14200	93511
03	56412	15949	73584	59593	46841	18463	06845	07974	63016	30136
04	04576	04739	79884	49252	06132	96840	41028	85689	51396	54599
05	81564	50271	88625	89193	97979	96982	37730	63963	72478	08333
06	38926	89980	54322	63699	18475	91018	13286	06243	71666	02529
07	97132	51838	31847	30237	68016	41288	57395	51333	36202	89595
08	55618	40873	60069	94816	02205	26176	97712	85777	36870	89633
09	10287	07237	95759	44055	26247	48886	81309	15868	95587	41042
10	19420	10916	03096	67942	94577	81085	54619	50538	07305	61411
11	19131	29434	31739	94717	14453	40565	83631	87159	81073	69904
12	54092	38575	58042	98087	04520	73553	38448	00982	07305	78757
13	03268	12734	19706	86182	81681	03026	51892	85384	81073	01614
14	49655	98461	04291	28133	33212	78497	87176	99490	64457	68355
15	35948	59176	34140	34788	16403	28186	18121	04584	66607	99740
16	59327	46487	63348	84466	14499	56627	25399	00394	57966	07036
17	80425	0071	66643	49957	26089	24045	01807	41623	63599	10666
18	87190	03835	32110	43505	40826	50931	03656	85049	56774	94075
19	08610	63708	55971	31543	10283	37737	48744	43042	42796	01853
20	25461	08322	26316	22349	84347	40611	49930	80833	19803	15878
21	30372	72054	98586	94559	59237	31180	89565	61427	25626	47515
22	12899	24245	36391	55611	01626	09836	33366	98272	21570	16498
23	97374	28121	40007	75107	13590	51321	73990	83518	45569	98357
24	23764	31267	88976	84872	53035	19542	79593	32987	08248	17390
25	81881	24337	18893	66195	22709	79534	87746	26584	53251	03096

Appendix L

List of Respondents' Population Drawn Using Random Numbers

156 ²	087	004	115	112	082	194	184
045	117	003	069	073	010	201	181
154	051	049	130	047	127	190	184
092	133	083 ²	000	109	073	086	171
032	031	117	061	087	001	183	182
128 ²	089	139	132	139	085	169	177
130	028 ²	082	160	065	054	184	160
102	026	045	027	104	035	162	186
042	085	157	027	097	140 ²	164	195
159	101	075 ³	117	082	131	168	176
072	060	064	043	051	007 ²	198	096
091	093	073 ²	127	157	103	180	078
121 ²	137	104	108	110	096 ²	178	013 ⁴
071	113 ³	047	083	158	049	162	158
063	118	036	041	016 ²	102	200	188
055	009 ²	106	147	155	083	165	163
148	138	036	054	037	081	191	

APPENDIX M

CORRELATIONS

Correlations

	VAR 00010	VAR00012	VAR0022	VAR00002	VAR 00007	VAR00013
VAR 00010 Pearson correlation	1	033	032	119	046	009
Sig. (2- tailed)		635	651	091	517	895
N	204	204	204	204	204	204
VAR 00012 Pearson correlation	033	1	198	-017	304	286
Sig. (2- tailed)	635		005	805	000	000
N	204	204	204	204	204	204
VAR 00022 Pearson correlation	032	198**	1	-115	091	197
Sig. (2- tailed)	651	005		102	197	010
N	204	204	204	204	204	204
VAR 00002 Pearson correlation	119	-017	-115	1	-073	-020
Sig. (2- tailed)	091	805	102		301	780
N	204	204	204	204	204	204
VAR 00007 Pearson correlation	046	304**	091	-073	1	159
Sig. (2- tailed)	517	000	197	301		203
N	204	204	204	204	204	204
VAR00013 Pearson correlation	009	286**	179*	-020	159*	1
Sig. (2- tailed)	895	000	010	780	023	
N	204	204	204	204	204	204

** Correlation significant at the 0.01 level (2-tailed).

* Correlation significant at the 0.05 level (2-tailed).

Correlations

Correlations

	VAR 00002	VAR0007	VAR0012	VAR00013	VAR00005	VAR00014
VAR 00002 Pearson correlation	1	-073	-017	-020	000	153
Sig. (2- tailed)		301	805	780	998	029
N	204	204	204	204	204	204
VAR 00007 Pearson correlation	-073	1	304**	159*	045	-058
Sig. (2- tailed)	301		000	023	525	592
N	204	204	204	204	204	204
VAR 00012 Pearson correlation	-017	304**	1	286**	068	085
Sig. (2- tailed)	805	000		000	336	227
N	204	204	204	204	204	204
VAR 00013 Pearson correlation	-020	159*	286**	1	001	203
Sig. (2- tailed)	780	023	000		984	004
N	204	204	204	204	204	204
VAR 00005 Pearson correlation	000	045	068	001	1	-074
Sig. (2- tailed)	998	525	336	984		290
N	204	204	204	204	204	204
VAR00014 Pearson correlation	153*	-038	085	203**	-074	1
Sig. (2- tailed)	029	592	227	004	290	
N	204	204	204	204	204	204

** Correlation significant at the 0.05 level (2-tailed).

* Correlation significant at the 0.01 level (2-tailed).

Correlations						
Correlations						
	VAR 00002	VAR00007	VAR00012	VAR00013	VAR 00001	
VAR 00002 Pearson correlation	1	-073	-017	-020	-019	
Sig. (2- tailed)		301	805	780	788	
N	204	204	204	204	204	
VAR 00007 Pearson correlation	-074	1	304**	159*	061	
Sig. (2- tailed)	301		000	023	386	
N	204	204	204	204	204	
VAR 00012 Pearson correlation	017	304**	1	286**	163*	
Sig. (2- tailed)	805	000		000	020	
N	204	204	204	204	204	
VAR 00013 Pearson correlation	-020	159*	286**	1	012	
Sig. (2- tailed)	780	023	000		860	
N	204	204	204	204	204	
VAR 00001 Pearson correlation	-019	061	163*	-012	1	
Sig. (2- tailed)	788	386	202	860		
N	204	204	204	204	204	
VAR00005 Pearson correlation	000	045	068	001	131	
Sig. (2- tailed)	998	525	336	984	063	
N	204	204	204	204	204	
VAR00011 Pearson correlation	062	096	093	236**	058	
Sig. (2- tailed)	381	173	185	001	407	
N	204	204	204	204	204	
VAR00017 Pearson correlation	001	106	129	214**	-026	
Sig. (2- tailed)	986	130	067	004	715	
N	204	204	204	204	204	

Correlations

	VAR 00005	VAR00011	VAR00017
VAR 00002 Pearson correlation	000	062	001
Sig. (2- tailed)	998	381	986
N	204	204	204
VAR 00007 Pearson correlation	045	096	106
Sig. (2- tailed)	525	173	130
N	204	204	204
VAR 00012 Pearson correlation	068	093	129
Sig. (2- tailed)	336	185	067
N	204	204	204
VAR 00013 Pearson correlation	001	236**	241**
Sig. (2- tailed)	984	001	002
N	204	204	204
VAR 00001 Pearson correlation	131	058	-026
Sig. (2- tailed)	063	407	715
N	204	204	204
VAR00005 Pearson correlation	1	019	-014
Sig. (2- tailed)		792	839
N	204	204	204
VAR00011 Pearson correlation	019	1	210**
Sig. (2- tailed)	792		003
N	204	204	204
VAR00017 Pearson correlation	-014	210**	1
Sig. (2- tailed)	839	003	
N	204	204	204

** Correlation significant at the 0,01 level (2-tailed).

* Correlation significant at the 0,05 level (2-tailed).

Correlations

Control Variables		VAR0001 1	VAR0001 7
VAR00003 & VAR00004 & VAR00008 & VAR00009 & VAR00010 & VAR00016 VAR00001	Correlation	041	-046
	Significant (2-tailed)	567	518
	df	196	196
VAR00001	Correlation	001	-027
	Significant (2-tailed)	989	709
	df	196	196
VAR00001	Correlation	1.000	193
	Significant (2-tailed)	0	006
	df	0	196
VAR00001	Correlation	193	1.000
	Significant (2-tailed)	006	0
	df	196	0

Correlations

	VAR00001	VAR00000	VAR00001	VAR00000	VAR00001	VAR00017
VAR 00001 Pearson correlation	1	5	1	131	1	-020
Sig. (2-tailed)				063		780
N	204	204	204	204	204	204
VAR 00005 Pearson correlation	131	1	1	1	019	-014
Sig. (2-tailed)	063				792	839
N	204	204	204	204	204	204
VAR 00011 Pearson correlation	058	019	1	019	1	210**
Sig. (2-tailed)	407	792				003
N	204	204	204	204	204	204
VAR 00017 Pearson correlation	-026	-014			210**	1
Sig. (2-tailed)	715	839			003	
N	204	204	204	204	204	204

** correlation is significant at the 0.01 level (2-tailed).

Partial Correlations

Correlations

Control Variables			VAR0005	VAR00014	
VAR00003 & VAR00004 & VAR00005	Correlation	Significant (2-tailed)	1.000	-064	
				368	
			0	200	
	VAR00014	Correlation	Significant (2-tailed)	-064	1.000
				368	
				200	0

Correlations

Correlations

	VAR 00002	VAR00007	VAR00012	VAR00013	VAR 00001
VAR 00002 Pearson correlation	1	-073	-017	-020	-019
Sig. (2- tailed)		301	805	780	788
N	204	204	204	204	204
VAR 00007 Pearson correlation	-074	1	304**	159*	061
Sig. (2- tailed)	301		000	023	386
N	204	204	204	204	204
VAR 00012 Pearson correlation	017	304**	1	286**	163*
Sig. (2- tailed)	805	000		000	020
N	204	204	204	204	204
VAR 00013 Pearson correlation	-020	159*	286**	1	012
Sig. (2- tailed)	780	023	000		860
N	204	204	204	204	204
VAR 00001 Pearson correlation	-019	061	163*	-012	1
Sig. (2- tailed)	788	386	202	860	
N	204	204	204	204	204
VAR00005 Pearson correlation	000	045	068	001	131
Sig. (2- tailed)	998	525	336	984	063
N	204	204	204	204	204
VAR00011 Pearson correlation	062	096	093	236**	058
Sig. (2- tailed)	381	173	185	001	407
N	204	204	204	204	204
VAR00017 Pearson correlation	001	106	129	214**	-026
Sig. (2- tailed)	986	130	067	004	715
N	204	204	204	204	204

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