

# Technical Education and Employment of Pre-university Technical Graduates in the Bolgatanga Municipality of Ghana

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## Abstract

The study sought to find out how far technical education has been able to solve unemployment among technical graduates of pre-university institutions in the Bolgatanga Municipality of Ghana. A sample of fifty responders, comprising forty technical graduates who completed their pre-university education in 1998 and ten employers of such graduates, were selected for the study in the Bolgatanga Municipality. Snowballing was used to identify the 1998 batch of technical graduates of pre-university education and their employers in the Bolgatanga Municipality. A random sampling procedure was employed to select the study sample finally. A 20 item instrument was used to collect data from the technical graduates of pre-university institutions on dimensions such as the background characteristics of the graduates, employment status of the graduates, jobs performed by the graduates, time taken by the graduates to get employment, and the satisfaction the graduates get from performing their jobs. Also, a 10 item instrument was used to collect data from employers of the technical graduates on the theoretical knowledge and practical skills of the graduate and performance of the graduates at work. Frequency counts and percentages were used to analyze the data collected. Based on the data analyzed, the study found that unemployment is still prevalent among pre-university technical graduates against a background of low female enrollment into technical programmes at the pre-university level and inadequate practical skill among pre-university technical graduates.

**Keywords:** Technical education, technical graduate, unemployment, job, skills, education reform, and vocationalization.

## 1. Introduction

After independence, the Government of Ghana, religious institutions, and private individuals engaged in the promotion and development of education in Ghana placed a high premium on general education to the detriment of technical education at the pre-university level. For example, "in the period 1957-1960 only, the number of primary schools rose from 1,311 to 1,394. The number of secondary schools increases from 38 in 1957 to 59 in 1960." However, the number of technical institutions stood at five (Amisah 1992, pp. 17 and 18; Graham 1976). This imbalance in the development of education was as a result of the following:

1. Ghanaians had no interest in trade schools (technical institutes) because they saw more prestige in clerical work than trade schools,
2. The educated Ghanaian preferred the superior import articles like chairs, tables among others from the Western World to the local handicrafts,
3. Ghanaians had less respect for people who did technical jobs,
4. Post-independence policies on economic development in Ghana focused on the creation of modern industrial structures through public investment to the detriment of indigenous small scale industries (McWilliams 1959, Graham 1976; Boapeah 1994).

This attitude has resulted in general schools far outnumbering technical institutes at the Pre-university level of the educational system. Also, many people got enrolled in general schools due to the prestige they associated with clerical work. Consequently, these general schools produced large numbers of academic graduates yearly. A small number of these graduates gained admission to the next levels of education while a large number proceeded to the job market.

Anno(1999, p197) cited that, " between 1970 and 1973, only 14 percent of the 64 percentage cohort who benefitted from primary and middle school education could proceed further to secondary cyclicled institutions. Only 0.8 percent entered tertiary institutions annually."As scores of graduates passed out from the general schools at the pre-university level, employment opportunities continued to decline due to economic factors. As a result, the unemployment population of the youth began swelling up yearly. This became a source of worry to Governments and parents. For instance, in 1968, the two year Development Plan drawn under the Administration

of the National Liberation Council [NLC] drew public attention to the unemployment of pre-university graduates as a shortcoming of the general education system (Amisah 1992). This unemployment situation was further brought to light by the 1970 population census of Ghana. For example in 1970, 71.7% of the total unemployed figure was 198,571 which was mostly pre-university graduates (Ghana, Census of population 1970).

In an attempt to solve this problem of unemployment among pre-university graduates, various Governments have acknowledged technical education as the basic solution to this problem. It is for this reason that various Governments saw the need to expand technical education at the pre-university level. This change in focus culminated in the building of more technical institutes and the vocationalization of the programmes of some general schools. For example the first step to vocationalization of pre-university education took place within 1962-1963. This initiative changed the traditional basic educational structure of 6:4 (six years primary school followed by four years middle school) to a new structure of 8:2. That is, eight years primary school and two years continuation middle school. Also, the content of the continuation middle school curricula witnessed the inclusion of pre-technical and pre-vocational courses like kente and basket weaving, block-laying, carpentry, catering, tailoring among others. However, due to structural and organizational inadequacies, the change did not affect all basic schools. Therefore, the traditional structure of 6:4 and the new structure of 8:2 run currently (Bame 1991).

In 1974, the National Redemption Council headed by the late Conel I.K. Acheampong adopted the 1972 Dzobo committee's proposal. This witnessed the change of the entire pre-university educational system, both in structure and content. These reforms changed the existing structures to 6:3:4, comprising six years primary education followed by three years Junior Secondary School education, and four years Senior Secondary School education. This reduced the years of pre-university education from seventeen years to thirteen years. Moreover, pre-technical and pre-vocational courses were introduced into Junior Secondary School curricula. Some Senior Secondary schools saw the inclusion of technical and vocational programmes into their curricula. This reform ran concurrently with the existing structures (6:4 and 8:2) due to lack of finance, structural, organizational difficulties, and loss of focus of the national philosophy of education. In short, as at 1975, Ghana had three pre-university structures, namely 6:4:7, 8:2:7, and 6:3:4 (Amisah 1992; Bame 1991).

These setbacks necessitated the introduction of the 1987 education reform by the Provisional National Defence Council [PNDC] headed by the then chairman, Flight Lieutenant John Jerry Rawlings (now former president of the Fourth Republic of Ghana). This reform changed the structure and content of the entire educational system of Ghana. The three structures were changed to a single structure of 9:3:3 (nine years basic education, three years senior high secondary education, and three years tertiary education). In addition, the curricula of all junior high secondary schools were redesigned to include pre-technical and pre-vocational courses. At the second cycle level, technical and vocational programmes among others were repackaged and introduced in the curricula. The curricula of tertiary institutions were redesigned to place emphasis on science and technology (Amisah 1991; Annoh 1999). The programmes at each level of the education system (basic, second cycle or tertiary level) are said to be terminal programmes. This means that graduates who have completed each programme of study at any level can enter into employment.

In all, the expansion of technical education through the setting up of more technical institutes and vocationalization of general schools' programmes have reached a broader dimension. However, no effort has been made to find out how far technical education has been able to solve the unemployment among the pre-university graduates.

#### 1.1 Statement of Problem

Although various Governments for the past years had made tremendous effort in setting up more technical institutes and vocationalizing the curricula of general schools to enable them produce corps of technical graduates who are employable, no effort has been made to find out how far technical education is able to solve unemployment among the technical graduates of pre-university education in Ghana. It is against this background that this research is conducted to find out how far technical education has been able to solve the unemployment among technical graduates of pre-university institutions especially the 1998 batch of technical graduates in the Bolgatanga municipality of Ghana.

#### 1.2 Purpose of the Study

The main purpose of this study is to find out how far technical education has been able to solve the unemployment among technical graduates of pre-university institutions in Ghana especially in the Bolgatanga municipality.

#### 1.3 Research Questions

The study was guided by the following major research questions: What are the demographic characteristics of the technical graduates of pre-university institutions in Bolgatanga municipality? What knowledge does

technical graduates of pre-university institutions possessed for employment? What practical skills do technical graduates of pre-university institutions possessed for employment? In what jobs are technical graduates of pre-university institutions engaged? What performance does technical graduates of pre-university institutions exhibit? What time does it take pre-university technical graduates to get employment after graduation? What satisfaction do pre-university technical graduates get from their jobs?

## **2. Methodology**

### **2.1 Research Design**

The methodology employed in this research was a descriptive study. Fraenkel and Wallen (2000) defined descriptive study as an attempt to describe existing conditions among a group of people. The researcher's preference for this design was informed by the fact that it is the most appropriate design for ascertaining the characteristics of people. Apart from this, it provides the researcher the opportunity to sample a population, which would have being too large to observe directly (Babbie, 1983).

### **2.2 Sample and Sampling Procedure**

For the purpose of this study, ten junior secondary school graduates, ten technical school graduates, ten vocational training institute graduates, ten senior secondary/technical school graduates of the 1998 batch and ten employers of these graduates were randomly selected. The study was conducted in the Bolgatanga municipality.

### **2.3 Instrument**

A 20 item questionnaire was used to collect data, from the technical graduates of pre-university institutions, on dimensions such as the background characteristics of the graduates, employment status of the graduates, jobs performed by the graduates, time taken by the graduates to get employment and the satisfaction the graduates get from performing their jobs. Also, a 10 item questionnaire was used to collect data, from employers of the technical graduates, on the theoretical knowledge and practical skills of the graduates and performance of the graduates at work. These questionnaires were developed, pre-tested, and administered to the sample.

### **2.4 Data Analysis Procedure**

The data collected using the aforementioned instruments were analyzed using frequency counts and percentages, which form the basis of this report.

## **3. Findings**

### **3.1 Background Characteristics of Graduates**

The analysis of data on the background characteristics of the 1998 batch of pre-university technical graduates revealed that 65 percent of the graduates studied were males while the remaining 35 percent were females. Moreover, 75 percent of the graduates had second cycle education while 25 percent had junior secondary education. In addition 25 percent of the graduates aged between 7-15 years, 67.5 percent aged between 16-24 years, and 7.5 percent aged between 25-33 years. Also, 25 percent of the graduates studied carpentry. 20 percent pursued Auto-mechanics. 17.5 percent studied cookery. 12.5 percent studied pre-technical skills. 10 percent studied Fashion while the remaining 7.5 percent studied electronics and electrical installation respectively.

### **3.2 Theoretical Knowledge and Practical Skills of Graduates**

All ten employers agreed that the 1998 batch of pre-university technical graduates in the Bolgatanga municipality had adequate theoretical knowledge in their fields of operation. However, 90 percent of the employers agreed that the graduates lack the practical skills to function in the respective fields of operation and therefore needed further training on-the-job. Also, they pointed out that the craftsmen whom they trained were better equipped with practical skills than the graduates.

### **3.3 Employment Status of the Graduates**

It was found that unemployment was prevalent among the 1998 batch of pre-university technical graduates in the Bolgatanga municipality. Only twelve out of the forty graduates studied were employed, constituting 30 percent. The remaining 28 graduates, who represent 70 percent were unemployed. 83.3 percent of the employed were in wage employment and 16.7 percent were in self-employment. Also, 54.5 percent of the unemployed were undertaking training such as apprenticeship and formal education. 7.14 percent were engaged in odd jobs, and 39.29 percent were idling.

### **3.4 Performance of the Graduates at Work**

The 1998 batch of pre-university technical graduates in the Bolgatanga municipality employed performed well at work. 80 percent of the employers of these graduates agreed that the graduates were duty-conscious, 70 percent said the graduates were willing to work, 80 percent agreed that the graduates were performing well at work. 70 percent agreed that the graduates adopted easily to new technology and solved basic problems associated with

their work while 80 percent said the graduates related well with their colleagues.

### 3.5 Jobs Performed by the Graduates

Twelve out of the forty graduates studied were employed. Out of the twelve graduates employed four were engaged in jobs for which they were trained. Of which 75 percent were in automobile repair work, and 25 percent in electrical installation work. It was also observed that the remaining eight graduates were employed in jobs for which they were not trained. Of which 37.5 percent were in carpentry. Another 37.5 percent were in automobile repair work. Only 25 percent were in building work. Of the eight graduate employed, 37.5 percent had acquired their skills through family training, and as high as 67.5 percent had their skills through apprenticeship. 75 percent of the graduates acquired their skills alongside their formal education. However, as low as 25 percent had their skills after completing their formal education.

### 3.6 Time Taken by the Graduates to Get Employment

It was observed that it took the technical graduates who completed pre-university education in 1998 in the Bolgatanga municipality not less than a year to get employment. 50 percent of the graduates who got employed were employed more than a year after graduation. 33.3 percent had employment a year after graduation while 16.7 percent had employment less than a year after graduation.

### 3.7 The Job Satisfaction of the Graduates

The 1998 batch of pre-university technical graduates in the Bolgatanga municipality who got employed were found to be satisfied with their jobs. It was observed that, out of the twelve graduates who got employed, 58 percent of them were satisfied with their jobs. Of which 42.86 percent derived their satisfaction from good salaries and other incentives they enjoyed. 28.57 percent had their satisfaction from interest they had for their jobs. The remaining 28.57 percent were satisfied because they were given the chance to exercise their abilities to the fullest in the performance of their jobs.

## 4. Discussion of findings

The high male enrollment into technical programmes confirms Cosgrave's view. According to Cosgrave (1975), society implants sex roles by classifying domestic, school, and occupational activities on the basis of masculine and femininity characteristics. Hence, there is low participation of female in activities demanding masculine characteristics.

The majority of the 1998 batch of pre-university technical graduates in the Bolgatanga municipality aged between 16-24 years. This collaborated what Zaccaria had been advocating. Zaccaria (1970) cited that the appropriate age range for pre-university and post secondary education is from 16-24 years. Zaccaria emphasized that, at this age range, the students can be properly guided through the educational ladder to study programmes that would lead them to their desired occupations.

The majority of the 1998 batch of pre-university technical graduates in the Bolgatanga municipality was unemployed. This is in line with the 1970 Ghana Population Census result, which indicated that, in 1970, 71.7% percent of the total unemployment figure was 198,571, representing mainly pre-university graduates in Ghana. This is supported by subsequent Ghana Population Census results. Although this finding cannot be generalized due to the small nature of the sample, the findings still depict the general trend in Ghana.

## 5. Conclusion

The study concluded that unemployment is still prevalent among pre-university technical graduates in Ghana against a background of low female enrollment into technical programmes at the pre-university level and inadequate practical skill among pre-university technical graduates.

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