

Comparative Analysis of Vocational and Technical Education at the Senior Secondary School Level in Nigeria and Ghana

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Abstract

Vocational and Technical Education (VTE) plays a vital role in national development, such that many great nations make it an essential part of their policies and invest in its curriculum. Its role in national development warrants the need to conduct studies on it. Thus this study is on comparative analysis of vocational and technical education at the senior secondary school level in Nigeria and Ghana. Integrated research method was employed in the study involving Historical, Scientific and Comparative methods. It was found that the philosophy and objectives of VTE at the senior secondary school level are good in Nigeria and Ghana; implementation of the curriculum content is better in Ghana than in Nigeria; administration and funding of VTE are better in Ghana than in Nigeria. It was concluded that there is need for improvement of VTE more in Nigeria than Ghana and recommendations are made in that regard.

Keywords: Comparative Education; Comparative Approaches; Vocational and Technical Education (VTE); Senior Secondary School; Nigeria; Ghana

Introduction

Education is an instrument for national development and social change. It makes best use of the individuals' in-born potentials and skills for self-actualization and all-round development of the society (FRN, 2013). Osokoya (1987) observes that vocational and technical education is an important aspect of education that leads to the realization, and development of in-born potentials and skills.

Vocational and Technical Education (VTE) plays a vital role in the development of many nations. Therefore, many nations place importance on it, invest in its curriculum and make it an essential part of their policies. Vocational and technical education is believed to be a viable tool for socio-economic development. In Ghana, for instance, vocational and technical education is believed to equip young men and

women with the technical and professional skills needed for rapid socio-economic development of the country (Boateng, 2012).

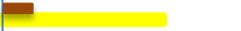
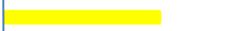
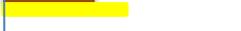
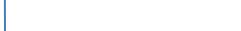
In Nigeria, there is similar belief in vocational and technical education (David, 2014; Adaralegbe, 1983). This study is interested in Comparative Analysis of Vocational and Technical Education in Nigeria and Ghana. This is because the two countries have various things in common:

- i. They both got independence from United Kingdom (Ghana in 1957, Nigeria in 1960).
- ii. They both had political governments that were interjected with military rules.
- iii. They both suffered socio-economic crises as a result of educational inadequacies and social disorientation (e.g. corrupt tendencies in politics, security and economy) (Buhari, 2015, Naijaloaded, 2016)
- iv. Moreover, they are both struggling to get out of the socio-economic crises using education (particularly, Vocational and Technical Education) as a means of getting out of the crises (Buhari, 2015; Boateng, 2012; FRN, 2013).

The following table contains indices of performance of the two countries on various issues that could influence the development of vocational and technical education at the senior secondary school level in both countries.

Table 1: Nigeria and Ghana on Global Innovation Index 2016

Variables

Index	Indicators	Nigeria (%)	Ghana (%)	Graph view
1.	Political environment	8.2	45.5	
2.	Political stability and absence of violence/terrorism	10.5	59.6	
3.	Rule of law	20.1	47.6	
4.	Ease of starting business	77.1	83.7	
5.	Ease of paying taxes	23.8	49.8	
6.	Expenditure on education	n/a	56.6	
7.	Government expenditure on education per pupil, secondary	n/a	40.2	
8.	Pupil-teacher ratio, secondary	23.8	74.7	
9.	Graduate in science & engineering	n/a	32.4	
10.	ICT access	28.2	45.1	
11.	ICT use	18.1	26.4	
12.	Gross capital formation	28.1	40.0	
13.	Market capitalization	46.6	4.3	
14.	Employment in knowledge- intense service	n/a	14.4	
15.	High-tech imports	9.8	17.2	
16.	Knowledge creation	2.9	6.2	
17.	Growth rate of GDP per person engaged	74.5	57.7	

18. Science and technical publications	2.1	11.6	
19. Creative good exports	0.4	2.4	

Source: <https://www.globalinnovationindex.org/content/page/interactive-Comparison/>

Key: Nigeria  **Ghana**  **n/a = not available**

Though, the present secondary school system of education in Nigeria appears to adequately serve the needs of the nation, it does not really serve the needs of the nation. The theoretical aspect is adequate but the practical aspect is inadequate, and unemployment is rampant. Nigeria lacks adequate personnel to facilitate the implementation of vocational and technical education curriculum. David (2014) observes that inadequate equipment and infrastructural facilities for teaching and learning, low level of funding and poor remuneration of teachers are some of the problems facing vocational and technical education in Nigeria.

In Nigeria, Vocational and Technical Education has been largely pursued in theoretical form rather than in practical form for many years because of inadequate facilities, inadequate administration and supervision and political challenges (Adaralegbe, 1983; Buhari, 2015). However, the National Policy on Vocational and Technical Education appears to be good in terms of philosophy and objectives, curriculum content, and administration and funding (FRN, 2013).

In Ghana, Vocational and Technical Education has been considerably more practical than theoretical. There have been consistent efforts to pursue Vocational and Technical Education in more practical forms than theoretical forms over the years (Boateng, 2012 & Adogpa, 2015). The tendencies are therefore that there are more emphasis on necessary infrastructures like electricity and water, curriculum contents and administration.

The results in terms of students' attitude and general vocational and technical disposition in the society are better. This might inform better technological tendencies in Ghana than in Nigeria. But since the two countries have similar historical background it would be proper to have a comparative analysis of the Vocational and Technical Education in both countries to be sure of the tendencies of the VTE in the countries and thereby make realistic recommendations for educational and societal development in both countries. This is the focus of this study.

Thus the general aim of this research is to examine the following: the similarities and differences in the philosophy and objectives of Vocational and Technical Education (VTE) at the senior secondary school level in Nigeria and Ghana; the similarities and differences in the curriculum content of VTE at the senior secondary school level in Nigeria and Ghana; the similarities and differences in the administration and funding of VTE at the senior secondary school level in Nigeria and Ghana.

Research Questions

In the light of the general aim of the study, the research questions for the study are as follows:

- A. What are the similarities and differences in the philosophy and objectives of vocational and technical education at the senior secondary school level in Nigeria and Ghana?
- B. What are the similarities and differences in the curriculum content of VTE at the senior secondary school level in Nigeria and Ghana?
- C. What are the similarities and differences in the administration and funding of VTE at the senior secondary school level in Nigeria and Ghana?

Research Method

The research method employed in this study involves integrated method of research, featuring historical, scientific and comparative methods of research.

A researcher-designed questionnaire and an interview schedule were used to elicit information from 151 respondents drawn from the Federal Ministry of Education, Abuja, Nigeria; Ministry of Education, Accra, Ghana; National Business and Technical Education Board (NABTEB) Secretariat, Benin, Nigeria; Council for Technical Vocational Education and Training (COTVET), Accra, Ghana; and eight (8) Technical colleges (four from Nigeria and four from Ghana).

The questionnaire had reliability index of 0.73. Quantitative and qualitative analyses were employed to analyse the data collected. These include the percentage and content analyses.

Data Analysis and Presentation of Results

The three research questions stated earlier would now be presented for the purpose of data analysis and discussion.

Research Question 1: What are the similarities and differences in the philosophy and objectives of vocational and technical education at the senior secondary school level in Nigeria and Ghana?

Philosophy and objectives of Vocational and Technical Education involve thinking about education that would lead to production of graduates who should be able to secure jobs that are well-paid for and initiate employments in various technical, technological, and practical vocations that could help personal, social and societal developments (Boateng, 2012; Olabode, Badmus; Ademola, 2012).

In this study, research questions are raised to elicit information about the manifestation of the implementation of philosophy and objectives of VTE at the senior secondary school level in Nigeria and Ghana. The following table, figure, and discussion contain analysis of opinions of respondents in both countries.

Table 2: Percentage Analysis of Opinions on Items on Philosophy and Objectives

*Note: Percentage of respondents in each country is in parentheses

Code	Variables	Country	To a large extent (%)	To a fairly large extent (%)	To a little extent (%)	Not at all (%)	Total (%)
A1	VTE at the senior secondary school level provides necessary skills to individuals for vocational development	Nigeria	34(44.7)	23(30.3)	12(15.8)	7(9.2)	76(100)
		Ghana	38(50.7)	27(36.0)	3(4.0)	7(9.3)	75(100)
A2	VTE at the senior secondary school level provides technological development	Nigeria	24(31.6)	26(34.2)	20(26.3)	6(7.9)	76(100)
		Ghana	9(12.0)	35(46.7)	30(40.0)	1(1.3)	75(100)
A3	VTE at the senior secondary school level provides practical and technological attitude	Nigeria	28(36.8)	33(43.4)	9(11.8)	6(7.9)	76(100)
		Ghana	5(6.7)	16(21.3)	44(58.7)	10(13.3)	75(100)
A4	VTE at the senior secondary school level contributes to economic development	Nigeria	30(39.5)	25(32.9)	17(21.4)	4(5.3)	76(100)
		Ghana	36(48.0)	24(32.0)	10(13.3)	5(6.7)	75(100)
A5	VTE at the senior secondary school level provides social life development	Nigeria	13(17.1)	31(40.8)	27(35.5)	5(6.6)	76(100)
		Ghana	43(57.3)	5(6.7)	22(29.3)	5(6.7)	75(100)
A6	VTE at the senior	Nigeria	10(13.2)	24(31.6)	28(36.8)	14(18.4)	76(100)

A7	secondary school level provides agricultural development	Ghana	7(9.3)	9(12.0)	34(45.3)	25(33.3)	75(100)
	VTE at the senior secondary school level contributes to national development	Nigeria	31(40.8)	17(22.4)	22(28.9)	6(7.9)	76(100)
		Ghana	31(41.3)	28(28.0)	16(21.3)	7(9.3)	75(100)

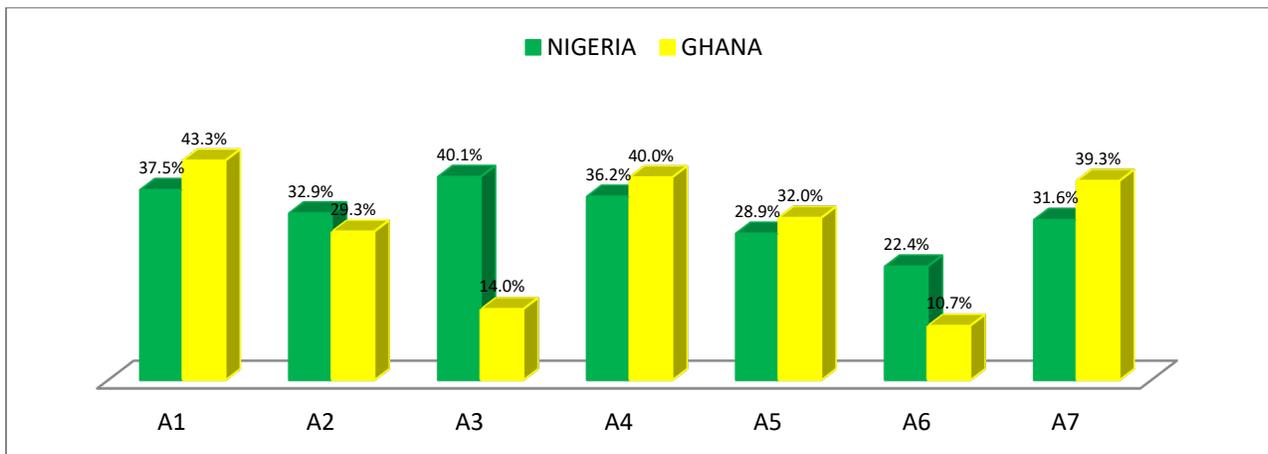


Figure 1: Positive opinions on items on philosophy and objectives of VTE at the senior secondary school level in Nigeria and Ghana.

On Table 2 and Figure 1 above it can be seen that the philosophy and objectives of VTE at the senior secondary school level in both countries manifest provision of necessary skills to individuals for vocational and technological development to a large extent. However, there is manifestation of more practical attitude in vocational and technical education in Nigeria than in Ghana. On economic development, VTE at the senior secondary school level contributes to economic development to a large extent in both countries. It promotes social life development to a large extent in Ghana but to a fairly large extent in Nigeria. Besides, VTE at the senior secondary school level promotes agricultural development more in Nigeria than in Ghana. Moreover, it contributes to national development to a large extent in both countries.

However in Ghana, Technical Institutes aim at training and cultivating practical attitude and skills leading to the provision of artisans, craftsmen, technicians, and other middle-level personnel in commerce, agriculture, technology, science, and industry (Adogpa, 2015). These trained artisans, craftsmen and technicians come together to form associations with government involvement for mutual benefit and national development. Some of these associations exist in Nigeria as well, but with productivity lower than that of Ghana. These associations can be more productive in Nigeria with similar government intervention.

The centrality of vocational and technical education in economic development is noteworthy. In line with this view Okolocha (2006) states that vocational and technical education is the bedrock of sustainable development of any nation. Vocational and technical education prepares individuals for productive living to contribute effectively to the development of the society. As a result of its vital roles in national development, many nations have given vocational and technical education recognition towards national development. Thus, they invest in its curriculum and make it an essential part of their policies (FRN, 2013). Nigeria therefore needs to invest more in VTE for economic growth and national development.

Research Question 2: What are the similarities and differences in the curriculum content of VTE at the senior secondary school level in Nigeria and Ghana?

The choice of Vocational and Technical Education curriculum content is based on the roles that Technical Colleges or Institutions are expected to play in the society. From literature review (e.g. Boateng, 2012; David, 2014) it can be seen that both countries have similar curriculum content of VTE at the senior secondary school level. Little differences exist in terms of Cosmetology and Upholstery that are included in Nigeria; Sculpture and Drumming and Dancing in Ghana. In this study, research questions are raised to elicit information about the curriculum content of VTE at the senior secondary school level in Nigeria and Ghana. The following table, figure, and discussion contain analysis of opinions of respondents in both countries.

Table 3: Percentage Analysis of Opinions on Items on Curriculum Content

*Note: Percentage of respondents in each country is in parentheses

Code	Variables	Country	To a large extent (%)	To a fairly large extent (%)	To a little extent (%)	Not at all (%)	Total (%)
B1	VTE curriculum at the senior secondary school level is relevant to the need of the society.	Nigeria	38(50.0)	22(28.9)	11(14.5)	5(6.7)	76(100)
		Ghana	31(41.3)	29(38.7)	10(13.3)	5(6.7)	75(100)
B2	The curriculum content of VTE at the senior secondary school level is more theoretical than practical.	Nigeria	34(44.7)	24(31.6)	12(15.8)	6(7.9)	76(100)
		Ghana	19(25.3)	35(46.7)	4(5.3)	17(22.7)	75(100)
B3	There are adequate tools and well	Nigeria	5(6.6)	11(14.5)	36(47.4)	24(31.6)	76(100)
		Ghana	9(12.0)	33(44.0)	29(38.7)	4(5.3)	75(100)

equipped workshops relevant for the implementation of VTE curriculum at the senior secondary school level

B4	Products of VTE at the senior secondary school level contribute adequately to the economic growth of the country.	Nigeria	13(17.1)	23(30.3)	32(42.1)	8(10.5)	76(100)
		Ghana	20(26.7)	29(38.7)	25(33.3)	1(1.3)	75(100)

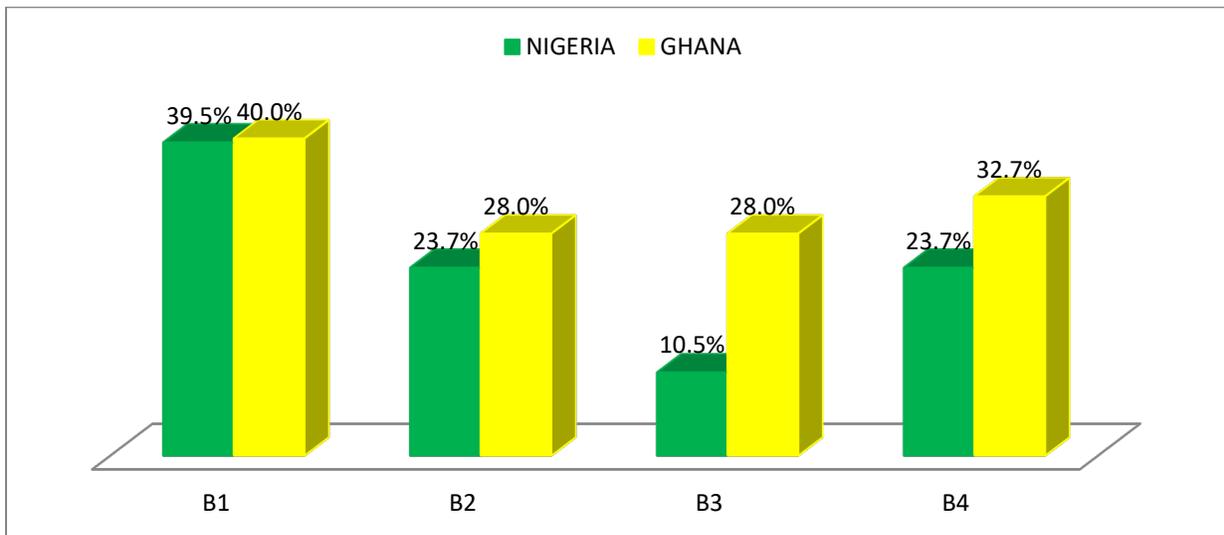


Figure 2: Positive opinions on items on curriculum of VTE at the senior secondary school level in Nigeria and Ghana.

Based on the findings shown on Table 3 and Figure 2 above; at the senior secondary school level in both countries VTE curriculum is relevant to the need of the society to a large extent. Also, the curriculum content is more practical than theoretical in both countries though to a greater extent in Ghana than in Nigeria. The effort made by the government in Ghana in the provision of adequate tools and workshops relevant to the implementation of VTE curriculum at the senior secondary school level is more than that of Nigerian government. As a result, the products of VTE at the senior secondary school level in Ghana contribute more to economic growth of their country than their Nigerian counterparts.

Research Question 3: What are the similarities and differences in the administration and funding of VTE at the senior secondary school level in Nigeria and Ghana?

In Ghana, the Ministry of Education (MOE) has the overall responsibility for education policy, planning, supervision and monitoring. Based on this, Ghana Education Service (GES) is the agency that is in charge of Basic and high school education, including Technical and Vocational Institutes (Republic of Ghana, 2000). However, Council for Technical and Vocational Education and Training (COTVET) was established for the purpose of formulating policies to improve the quality, relevance and perception of technical and vocational education and training across Ghana. In Nigeria as well, the secondary level vocational and technical education is controlled and supervised by the Ministry of Education. The National Board for Technical Education (NBTE) oversees polytechnics and monotechnics, while the Industrial Work Experience Programme comes under the control of the Industrial Training Fund (FRN, 2013). In both countries, funding in terms of remuneration of teachers, provision of tools and equipment is the duty of the government. From literature review, it can be gathered that Nigeria and Ghana are facing similar problems in the administration and funding of VTE (e.g. Boateng, 2012, Ukma, Ochedikwu, & Deke, 2013) although Ghana appears to be more focused than Nigeria.

In an open ended question, some of the respondents in Nigeria suggested that there should be regular supervision and good record keeping. In the aspect of funding they suggested that government should fund VTE programmes adequately for effectiveness. In Ghana, some of the respondents suggested that government should pay more attention to vocational and technical education; government’s allocation to VTE should be increased for effectiveness. They added that private bodies should also be involved.

Table 4: Percentage Analysis of Opinions on Items on Administration and Funding

*Note: Percentage of respondents in each country is in parentheses

Code	Variables	Country	To a large extent (%)	To a fairly large extent (%)	To a little extent (%)	Not at all (%)	Total (%)
C1	The remuneration of VTE teachers at the senior secondary school is adequate	Nigeria	5(6.6)	13(17.1)	32(42.1)	26(34.2)	76(100)
		Ghana	6(8.0)	16(21.3)	30(40.0)	23(30.7)	75(100)

C2	VTE at the senior secondary school level is well-funded	Nigeria	2(2.6)	7(9.2)	33(43.4)	34(44.7)	76(100)
		Ghana	7(9.3)	21(28.0)	29(38.7)	18(24.0)	75(100)
C3	Supervision of VTE at the senior secondary school level is effective.	Nigeria	3(3.9)	16(21.1)	32(42.1)	25(32.9)	76(100)
		Ghana	20(26.7)	30(40.0)	24(32.0)	1(1.3)	75(100)
C4	There is adequate training on the job for VTE teachers at the senior secondary school level.	Nigeria	1(1.3)	16(21.1)	36(47.4)	23(30.3)	76(100)
		Ghana	4(5.3)	16(21.3)	30(40.0)	25(33.3)	75(100)

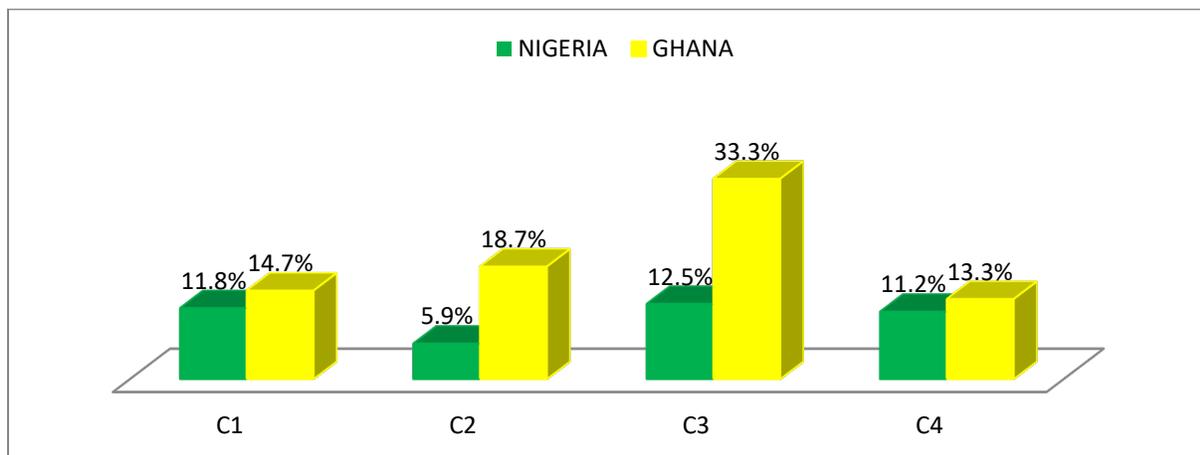


Figure 3: Positive opinions on items on administration and funding of VTE at the senior secondary school level in Nigeria and Ghana.

From Table 4 and Figure 3 above it can be seen that remuneration of VTE teachers at the senior secondary school level is adequate to a little extent in both countries. In both countries, VTE at the senior secondary school level is well-funded to a little extent; although to a better extent in Ghana than in Nigeria. Supervision of VTE at the senior secondary school level is more effective in Ghana than in Nigeria. In both countries, there is adequate training on the job for VTE teachers at the senior secondary school level to a little extent.

Agbulu and Olaitan (2002) in their view of administration of VTE in Nigeria had earlier indicated that the administration and management of vocational and technical education at the senior secondary school level in Nigeria has been very turbulent as there is no separate regulatory body for proper control and supervision at the senior

secondary school level. Vocational and technical education as an aspect of education though very productive is expensive. In both countries, poor funding has made it difficult for vocational and technical education to flourish.

Conclusion

In conclusion, VTE at the senior secondary school level is better in Ghana than in Nigeria in terms of curriculum content, administration and funding; while in terms of philosophy and objectives, VTE at the senior secondary school level performs well in both countries. Thus although, there is need for improvement in the development of VTE at the senior secondary school level in both countries, there is need for more improvement in Nigeria.

Lessons derived from Ghana

- a. In Ghana, VTE curriculum content at the senior secondary school level contributes more to economic growth.
- b. The government of Ghana provides adequate tools and well equipped workshops relevant for implementation of VTE curriculum at the senior secondary school level to fairly large extent.
- c. Supervision of VTE at the senior secondary school level is effective to a fairly large extent in Ghana.
- d. There is a separate regulatory body for VTE at the senior secondary school level in Ghana.

Lessons derived from Nigeria

- a. The philosophy and objectives of VTE at the senior secondary school level encourage practical and technological attitude in Nigeria.
- b. Also, the philosophy and objectives of VTE at the senior secondary school level encourage agricultural development in Nigeria.

Recommendations

Based on the findings and conclusion of the study, the following recommendations are made: Policy makers in both countries should ensure that the philosophy and objectives of vocational and technical education are realistically pursued for vocational and technological development, development of social life and economic development in both countries.

In Nigeria, the government and the people should pursue greater implementation of VTE curriculum at the senior secondary school level. This could be done by encouraging provision of adequate number of well-equipped workshops in the secondary schools and technical colleges. Moreover, adequate number of well-trained teachers should be emphasised. In both countries, government should pay more attention to the remuneration of VTE teachers and funding of the secondary schools and technical colleges.

Finally, the recommendations stated above could be useful for developing nations that may be in the same situation as the ones in this study.

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