



Survey on the Role Technical Education for Sustainable National Development in Nigeria

Hassan Iliyasu¹ Shambirina'ah Godiya²

Technical Education Department School of Vocational and Technical Education, Adamawa State College of Education Hong^{1,2}.

Correspondence: hassaniliyasu50@gmail.com

Abstract

The study determined the role of technical education for sustainable national development in Nigeria. The study was guided by two research questions and two null hypotheses were formulated and tested at 0.05 level of significant. Descriptive survey design was employed for the study. The population of the study comprised 464 teachers and mechanical craft trades students in Government Science and Technical College Yola, Numan and Mubi in Adamawa State. Simple random technique was used to withdraw 105 teachers and 178 Nigerian Technical College (NTC) II students of mechanical craft trade. Structured questionnaire was used to collect data for the study. Two experts validated the instrument and was subject to reliability test and the reliability coefficient of 0.73 was obtained. The instrument was administrated and collects by the researcher and the research assistants. Mean of each questionnaire item was analyzed with the aid of Statistical Package for Social Science (SPSS). The findings among other revealed that technical education sustains national development in Nigeria. It also revealed that there is significant difference between the responses of teachers and students on the means through which technical education promotes national development in Nigeria. The study concluded that technical education has significant contribution in the promotion and sustainability of national development. Based on the founding's of the study, the study recommended among others that government should adequate found technical programmers in schools and colleges.

Key words: Technical Education, Sustainable and National Development

Introduction

Technical education is the aspect of education designed to develop skills, attitudes, work habit and aspirations encompassing knowledge and information needed by workers, to enter and make progress in employment on a useful and productive bases (Ikpe, 2010). It is a form of education that prepares an individual for the acquisition of practical skills to earn employment and further studies in the higher institutions (Reagan, 2011). According to Abdulrahama (2013), technical education has been attesting severally as a form of education that provides employment, enhance productivity and self-reliance among others. Technical Education as enshrined in the Nigerian national policy on education, is concerned with quantitative technology, human resources development directed, towards national pool of skills, and self -reliant craftsmen, technicians and technologies in technical and vocational fields (FRN, 2013). According to Okoye and Arimonu (2016) technical education helps in training man0ower personnels who are to serves as initiators and implementers of technological development policies of a national.

Considering the above roles of technical education in economic development and sustainability, Abdulrahman (2013) perceived that technical education is the greatest weapon that can be used to bring national development. Technical education fosters national development because it trains citizenries on lifelong skills, and creativity that sustain viable economic and technological future development of a nation (Usman, 2012). According to (Abdulrahman 2013), national development occurs when there is sustainable technical education that promote remarkable advancement in economics system, industries, social amenities, employment opportunities and standard of living among other. Similarly, Okoye and Arimonu (2016), explained that technical education is a key factor for national development, because it plays a vital role in economic sustainability and technological advancement of nation (David, 2014).

Thus, the recent increase in unemployment and poverty level in Nigeria was contributed to poor policy formation and implementation of technical education. These challenges have resulted to poor standard of living and declined in productivities, because there is general lacking of competent manpower and conducive economics environment that will promote and sustained national development in Nigeria. Therefore, this study sought to determine the role of technical education for sustainable nation development in Nigeria.

Purpose of the Study

The main purpose of the study was to determine the role of technical education for sustainable national development in Nigeria. Especially this study sought to:-

1. Determine the means through which technical education promotes national development.
2. Determine the means through which technical education sustain national development.

Research Questions

The following research questions guide the study.

1. What are the means through which technical education promotes national development?
2. What are the means through which technical education sustain national development?

Hypothesis

The following null hypothesis were formulated and tested at 0.05 level of significance.

HO1: There is no significant different between the responses of the teachers and students on the means through which technical education promotes national development.

HO2: - There is no significant difference between the responses of teachers and student on the mean through which technical education sustain national development.

Methodology

The study employed descriptive survey design. This type of research design elicits information from the respondents. The geographical area of the study is Adamawa State, which comprised of 21 local government areas and shares boundary with republic of Cameroon along west, Borno State on the North, Gombe State on the West and Taraba State on the South West. The population of the study comprised 464 teachers and mechanical craft trades students in the three Government Science and Technical Colleges of Adamawa State. Simple random technique was used to withdraw 105 teachers and 178 NTC II students of mechanical trades, using Yaro Yamane formula for finite population as rational for the sample size of the study. The instrument used for data collection was structured questionnaire of fourteen items. The instrument was validated by two experts from Adamawa state polytechnic Yola and the reliability coefficient of 0.73 was obtained through spitted half technique. Data for this study was collected by the researcher and the research assistants. Means and standard division were analyzed with aid of Statistical Packed for Social Science (SPSS). Decision rule on each research question was any item with mean value 2.50 and above was agreed. While any value below 2.50 was disagreed. In the case of hypotheses, any item where calculated mean value is greater than critical mean value, the null hypotheses was rejected, meaning significant but where otherwise the null hypotheses is accepted.

Results

Research Question 1

What are the means through which technical education promotes national development?

Table 1: Mean Response of Teachers and Students on the Means through Which Technical Education Promotes National Development

S/N	item	X1	X2	GX	Remark
1	Technical education create employment Opportunities	3.15	3.87	3.01	Agreed
2	Technical education enhances productivities	3.93	3.07	3.50	Agreed

3	Technical education provides trained manpower	3.70	3.53	3.62	Agreed
4	Technical education aid in industrial development	3.04	2.71	2.88	Agreed
5	Technical education aid in alleviation of poverty	2.94	3.06	3.00	Agreed
6	Technical education aid in promoting national Economy	3.11	3.00	3.06	Agreed
7	Technical education provides social amenities	2.87	2.55	2.71	Agreed
8	Technical education promotes standard of living	3.56	3.12	3.34	Agreed
	Total	3.29	2.99	3.14	Agreed

Table 1 shows that out of 8 items listed as the means through which technical education promotes national development, all the 8 items were rated agreed with the grand mean of 3.14. This implies that technical education promotes national development in Nigeria.

Research Question 2: What are the means through which technical education sustain nation development?

Table 2: Mean Responses of Teachers and the Students on the Means Through Which Technical Education Sustain National Development

S/N	Item	X1	X2	GX	Remark
1	provision of good maintenance services	3.02	2.90	2.96	Agreed
2	Invention of innovative technology	3.45	3.22	3.34	Agreed
3	Redesigning of new operational systems	3.74	3.53	3.64	Agreed
4	Retaining of manpower on new technology concepts	3.01	2.84	2.75	Agreed
5	Designing of new quality control strategies	3.06	2.01	2.65	Agreed
6	Technical education aid in promoting national Economy	3.11	3.00	3.06	Agreed
7	Redesigning of function curriculum that emphasis occupational skill-based training	3.26	2.83	2.79	Agreed
	Total	3.16	2.86	3.00	Agreed

Table 2 shows that out of 6 items listed as the means through which technical education sustain national development, all the 6 items were rate agreed with the grand mean of 3.00 this implies that technical education sustain national development in Nigeria.

Hypothesis 1

HO1: There is no significant different between the responses of the teachers and students on the means through which technical education promotes national development.

Table 3: t- Test Analysis of the Mean Responses of Teachers and Students on the Means Through Which Technical Education Promotes National Development

S/N	Respondent	X	SD	N	t-Cal	t-crit	Remark
1	Teacher	3.14	0.93	105	2.08	1.96	Significance
2	Student	3.06	1.68	178			

Table 3: Shows that the mean response of teachers on the means through which technical education aid in promoting national development is 3.14, while the mean response of the students on the means through which technical education promote national development is 3.06. The t- calculated value 2.08 is greater than t-critical value 1.96. This implies that the null hypothesis is rejected, meaning there is significant different between the mean response of the teachers and students on the means through which technical education promotes national development.

HO2: - There is no significant difference between the responses of teachers and student on the mean through which technical education sustain national development.

Table 4: t - Test Analysis of the Mean Responses of Teachers and Students on the Means through Which Technical Education Sustain National Development

S/N	Respondent	X	SD	N	t-Cal	t-crit	Remark
1	Teacher	3.01	0.64	105	2.34	1.96	Significance
2	Student	3.17	1.83	178			

Table 4 shows that the mean response of teachers on the means through which technical education sustain national development is 3.01, while the mean response of students on the means through which technical education sustains national development is 3.17. The t-calculated

value 2.34 is greater than t-critical value 1.96. This implies that the null hypothesis is rejected meaning there is significant difference between the responses of the teachers and the students on means through which technical education sustain national development in Nigeria.

Findings of the Study

The following findings emerged after data analysis:

1. Technical education promotes national development in Nigeria.
2. Technical education sustains national development in Nigeria.
3. There is significant difference between the responses of teachers and students on the mean through which technical education promotes national development in Nigeria.
4. There is significant difference between the responses of teachers and students on the mean through which technical education sustains national development in Nigeria.

Discussion of the Finding

The finding with respect to research question one indicates that technical education promotes national development in Nigeria. This finding concurred with the findings of shiba (2015) who also revealed that technical education is a vital tool through which any nation experience growth and national development. Abdulrahaman (2013) and Jeol (2019) also confirmed that technical education aid in promoting national development through human resources training and innovative technology, among others.

The finding with respect to research question two indicated that technical education sustains national development. This finding agreed with Gagan, Raminder and Mandeep (2016), who revealed that technical education has potential to ensure and sustains national development in India. David (2014), Sofoluwe (2015) and Hassan (2018) also confirmed that technical education plays critical role in sustaining national development through provision of maintenance services, retraining of manpower, and redesigning of skill-based curriculum.

The hypothesis one revealed that there is a significant difference between the responses of teachers and students on the means through which technical education promotes national development. This finding is in agreement with the findings of sofoluwe (2015) and shiba (2015) who revealed that technical education significantly promotes national development. Joel (2019) also confirmed that technical education aid in promoting national development in Nigeria.

The hypothesis two revealed that there is a significant difference between the responses of teachers and students on the means through which technical education sustain national development. This finding concurred with the finding of Gagan (2016) and Hassan (2015) who revealed that technical education significantly sustains national development. Similarly, the finding agreed with the finding of Joel (2019) who revealed that technical education is a vital instrument that sustains national development in Nigeria.

Conclusion

This study determined the role of technical education for sustainable national development in Nigeria. Based on the findings of this study, it was revealed that technical education is vital tools for sustainable national development in Nigeria. This study also suggested that government should give special attention in terms of funding of technical education in technical colleges, colleges of education and polytechnics among others, in order to promote and sustain national development in Nigeria. It was therefore concluded that technical education has significant contribution in the promotion and sustainability of national development in Nigeria.

Recommendations

Based on the findings of this study the following recommendations were made:-

1. Government should provide training facilities to technical colleges, college of education and polytechnics among others.
2. Government should timely organize workshops and seminars for the retraining of technical teachers.
3. Government should adequately fund technical programs in schools and colleges.

Reference

- Abdulrahman, W. L. (2013). Technical and vocational education a tool for national development in Nigeria. *Mediterranean Journal of Social Sciences*, 4(8), 85–89.
- David, S. (2014). An overview of vocational and technical education in Nigeria under secondary school education system. *Enhancement and Emerging Engineering Research*, 2(6), 119–128.
- Federal Republic of Nigeria. (2013). *National policy on education*. NERDC Press.

- Gagan, D. S., Reminder, S. U., & Mandeep, M. (2016). Technical education as a tool for ensuring sustainable development: Case study of India. *Journal of Business Education*, 5(1), 58–63.
- Hassan, H. H. (2018). Vocational and Technical education a tool for national sustainable development in Nigeria. *Journal of Business Education*, 5(1), 58–63.
<http://www.nigerianjournalsonline.com>
- Ikpe, U. N. (2010). Vocational and Technical education in Nigeria: A review. *Global Journal of Educational Research*, 9(1), 33–39. <http://www.globaljournalseries.com>
- Joel, S. (2019). *Technical and vocational education for productivity and sustainable development in Nigeria*. <http://www.iproject.com.ng/education>
- Okoye, P. R., & Arimomu, M. O. (2016). Technical and vocational education in Nigeria: Issues, challenge and way forward. *Journal of Education and Practice*, 7(6), 113–118.
<http://www.iiste.org>
- Onyemaechi, K. E., Nnenna, S. O., & Anyanwu, N. (2014). Technical and vocational education for sustainable future in Nigeria. *Journal of Resourcefulness and Distinction*, 8(1), 1–8.
- Reagan, N. R. (2011). Technical education: The means to the realization of Nigeria's vision 2020. *Global Journal of Educational Research*, 11(1), 7–13.
<http://www.globaljournalseries.com>
- Shiba, B. T. (2015). Technical and vocational training for sustainable development. *Journal of Training and Development*, 1(1), 1–12. <https://www.researchgate.net/publication>
- Sofoluwe, A. O. (2015). Re-engineering vocational and technical education for sustainable development in north central Nigeria. *Makerere Journal of Higher Education*, 7(1), 54–66.
<http://ajol.info/index.php/majohe>
- Usman, H. N. (2013). Techniques of vocational and technical education in Human resources development and utilization. *Journal of Vocational and Technical Education*, 7(1), 78–82.