

Assessment of the Relevance of Automobile Technology Education as a Veritable Medium for Poverty Alleviation and Employability of Youths in Niger State, Nigeria

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Abstract

The study identified the causes of poverty, the effects of poverty and also identified how automobile technology education can be used to alleviate poverty. The study was a survey research in which data was collected through a 30 items questionnaire on a population of 100 respondents randomly sampled from the technical colleges in Niger State. The data was analyzed using Mean and Standard Deviation on a 4-point scale. Findings of the study revealed among others that the main causes of poverty in Niger State are unemployment, ignorance, poor governance, corruption, high inflation, environmental degradation, high population growth, among others. The findings also revealed that the effects of poverty are also numerous and such are high dearth rate, violence in the family, and increase in crime rates to mention a few. The paper recommended among others that there is need for the government to intervene so that there can be knowledge transfer between industrial and vocational education experts to ensure successful implementation of a functional automobile technology education and training which is a veritable medium for alleviating poverty .

Keywords: Automobile, Automobile technology education, Poverty, Poverty alleviation.

Introduction

Technical and vocational education is a major prerequisite for technological advancement and overall national development in any nation be it an underdeveloped, developing developed. Technical and Vocational Education (TVE) is that aspect of education that exposes the learner to the acquisition of demonstrable skills that could be transformed into economic benefits (Akerele, 2007). According to Dike (2009) TVE is that aspect of education which leads to the acquisition of skills as well as basic scientific knowledge. It is a planned program of courses and learning experiences that begins with exploration of career options, life skills, educational advancement, leadership, and preparation for industry-defined work, (Maclean & Wilson, 2009).

The National Policy on Education (FRN, 2004) sees TVE as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. Okoro (2006) defined vocational education as any form of education whose primary purpose is to prepare persons for employment in recognized occupations. It is a form of education designed to develop skills, abilities, understanding, attitudes, work habits and appreciation that include knowledge and information needed by a person to enter and make progress in self or paid employment on a useful and productive basis.

The Federal Government in realization of the role of vocational and technical education in poverty alleviation, mapped out the following goals for the successful realization of this objectives as contained in the National Policy on Education as to:

- (a) Provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels;
- (b) Provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic developments.
- (c) Give training and impart the necessary skills to individual who shall be self-reliant economically.

These rich objectives of the Federal government cannot be achieved in Nigeria in the absence of functional and efficient Vocational and Technical Education which is a major avenue for producing skilled individuals that will be enterprising, resourceful and competent enough to be able to succeed in self or paid employment to alleviate poverty; which is an enemy of man and humiliates and dehumanizes its victim.

The scope of technical and vocational education encompasses such broad classification as agricultural education, business education, fine and applied arts education, home economics education,

nursing education, health technology education, industrial technical education and industrial technology education among others. Examples of vocational training and technical education programmes includes among others those offered at trade centers, technical colleges, monotechnics, polytechnics, colleges of technology, colleges of education, universities, medical and paramedical schools. In most technical colleges and technological institutions, the engineering related aspect of vocational and technical education occurs as building technology, electrical/electronics technology, metal work technology, automobile technology and wood work technology.

Automobile technology education encompasses studies relating to acquisition of technical knowledge and vocational skills in automobile trade for self-reliance through securing employment or by setting up an automobile repair shop that render maintenance and repair services in return for wages /financial reward. The usefulness of automobiles are increasing daily due to the greater comfort, drivability and safety due to the numerous electronic sensors and devices that have dominated the modern automobile. Automobile education is seen as a vital tool for alleviating poverty in any nation in the world because of the increasing demand for varieties of automobiles daily.

Olaitan, Ali, Onyemachi and Nwachukwu (2000) identified automobile education as the only potent tool and most powerful weapon to fight poverty in the 21st century. Poverty is the inability of individuals, groups or society to provide for their basic necessities of life such as food, clothing, shelter, basic education among others. Technical education can therefore be seen as the formal training of persons to become technicians in different occupations. Thus any education that is geared towards teaching technical skills and attitudes can be regarded as technical education and as a means of poverty alleviation and eradication.

The main causes of poverty in Nigeria are unemployment, ignorance, poor governance, corruption, high inflation, environmental degradation, high population growth, among others. Specifically, in rural areas, where 85 per cent of Nigeria's poor reside, the major cause of poverty has been identified as the use of outdated and inefficient systems in agriculture and craft. Other contributory factors to low income in rural areas include inadequate infrastructure, lack of credit and marketing facilities, unfavorable rural institutions especially in respect of land tenure; ignorance; illiteracy and cultural and institutional rigidities (Abubakar, 1995). Williams (1984) has also identified lack of viable non-farm employment opportunities in the rural sector thereby leading to over-crowding in urban setting and under-employment of labour. He added that even though alternative occupations like traditional crafts and petty trading do exist in most villages, yet

investigations have shown that incomes realized from these occupations are as low as those realized from farming (Williams, 1984).

Unfavorable physical environmental conditions, such as desertification in the North, water hyacinth in inland waterways and oil spillage in the Niger-Delta, have contributed to the low economic fortune of the inhabitants of those areas of the country, thereby aggravating their level of poverty. Abubakar (2002) noted that 35 per cent of the country's landmass, particularly in the North, has come under serious desert encroachment. Unemployment situation in the country which became manifest in the early 1980s and has assumed crisis levels since the 1990s has worsened the level of poverty. Cumulatively, Nigeria produced a total of 1,110,000 graduates from tertiary institutions between 1985 and 1996 alone (Abubakar, 2002:1). It was observed that less than 100,000 of this number got formal jobs which suggest that one million might be unemployed or under-employed for the same period.

The effects of poverty are serious. Children who grow up in poverty suffer more persistent, frequent, and severe health problems than do children who grow up under better financial circumstances.

- Many infants born into poverty have a low birth weight, which is associated with many preventable mental and physical disabilities. The poor infants are more liable to be irritable or sickly; they are also more likely to die before their first birthday.
- Children raised in poverty tend to miss school more often because of illness. These children also have a much higher rate of accidents than well to do children, and liable to have impaired vision and hearing, iron deficiency, anemia, among others.

Levels of stress in the family have also been shown to correlate with economic circumstances. During economic recessions there are usually job losses and subsequent poverty associated with violence in families, including child and elder abuse. Poor families experience much more stress than middle-class families. Besides, financial uncertainty expose such individuals to series of negative events and "bad luck," including illness, depression, eviction, job loss, criminal victimization, and family death. Parents who experience hard economic times may become excessively punitive and erratic, issuing demands backed by insults, threats, and corporal punishment. It is upon this background that the researchers decided to carry out the study to assess the relevance of automobile education as a veritable medium for poverty alleviation and employability of youths in Niger State, Nigeria.

Statement of the Problem

The inability of the individual to provide the basic need of life is what Olaitanetal (2002) called poverty. Effects of poverty may include inability to meet immediate and basic needs of life such as: food, clothing, education, among other facilities thus making life difficult and sometimes unbearable. Technical and Vocational Education leads to acquisition of practical skills and competences to solve national problems and serves as a veritable tool for poverty eradication among the citizens. Developing and developed nations have used TVE for national advancement which has helped their countries to overcome the high-level of national challenges. Automobile education is one of the Technical and Vocation Education which involve the acquisition of scientific knowledge in design, selection of materials, operation, construction and Maintenance of Motor vehicles. According to Doyin (2004), TVE is designed to prepare individuals for a gainful education as semi-skilled or skilled worker (technicians or sub-professionals) in recognized occupation. It can be observed that automobile education if properly channeled, contains certain skills that can be used to achieve poverty alleviation and eradication in the country. The unsatisfactory result of Technical and Vocational Education calls for assessing the relevance of automobile education as a veritable medium for poverty alleviation and employability of youths in Niger State, Nigeria.

Purpose of the Study

This study assessed the relevance of automobile technology education as a veritable medium for poverty alleviation and employability of youths in Niger State, Nigeria. The specific purposes are:

1. Determine the causes of poverty among youths in Niger state.
2. To find out the effect of poverty among youth in Niger state.
3. To find out how automobile education can be used to reduce poverty among youth in Niger state

Research Questions

The following research questions were raised to guide the study:

1. What are the causes of poverty among youth in Niger state?
2. What are the effects of poverty among youth in Niger state?
3. How can automobile education be used to reduce poverty?

Methodology

The study was carried out in the technical colleges in Niger State. Niger State has seven technical colleges. The technical colleges and their population purposively sampled are: Government Technical College, Minna (10 teachers and 4 administrators); Suleiman Barau Government Technical College, Suleja (11 teachers and 4 administrators); Government Technical College, Eyagi Bida (10 teachers and 4 administrators); Government Technical College, Kotogora (9 teachers and 4 administrators); Government Technical College, Pandogari (10 teachers and 4 administrators); Government Technical College, New Bussa (8 teachers and 4 administrators) and Federal Science and Technical College, Kuta (12 teachers and 6 administrators). The respondents used for the research study was 100 professionals comprising of 70 technical teachers and 30 administrators in technical colleges sampled through purposive sampling technique. Purposive sampling technique was used to select the numbers of technical teachers and administrators used for the research study. This sampling method was considered suitable because as at the time of carrying the field work for this study, some teachers and administrators in each of the technical colleges were on study leave and were not available in the school. The instrument used to collect data was a structured questionnaire, which contained 30 items covering the research questions for the study. The questionnaire was structured on a four scale. The questionnaire was content validated by three senior lecturers chosen from Federal university of Technology, Minna. Corrections were made appropriately before it was administered. A total of 100 questionnaires were administered to the respondents by the researcher and research assistant and 92 was collected (ie 92% returns). The responses on the questionnaire items were used to answer the research question and the mean scores of rating of the items were computed and used as a guide in analyzing the opinion of the respondents. Thus the data collected for this study were analyzed using mean and standard deviation. To determine acceptance level, mean of 2.50 was used as deciding point to accept or reject an item. Therefore a response with a mean of 2.50 and above was considered accepted while a response below 2.50 was considered rejected.

Results

Research Question 1

What are the causes of poverty?

Table 1: Mean and Standard Deviation of the respondents on the causes of poverty.

S/N	ITEM STATEMENT	\bar{X}	SD	REMARK
1	High rate of unemployment.	2.54	1.48	Accepted
2	Poor governance and unfavorable economic policies.	2.88	1.22	Accepted
3	Ignorance, illiteracy and laziness on the part of individuals.	2.63	1.95	Accepted
4	Corruption, nepotism, tribalism and favoritism.	3.21	1.12	Accepted
5	Loss in the value of money due to High inflation rate.	3.21	1.1	Accepted
6	Unfavorable physical environmental conditions such as environmental degradation and oil spillage.	2.50	1.46	Accepted
7	High population growth.	3.50	1.12	Accepted
8	Outdated and inefficient systems in agriculture and craft.	2.78	1.86	Accepted
9	Cultural and institutional rigidities.	3.50	1.24	Accepted
10	Deficiency in skills and lack of a marketable skill.	3.21	1.58	Accepted

Analysis on Table 1 shows that 10 of the items presented had their weighted mean values ranged from 2.50-3.50. This values are above the cutoff point of 2.50 which implies that the respondents accepted the items as the causes of poverty. On the causes of poverty, the study reveal among others that the causes of poverty among others includes: high rate of unemployment and High population growth; ignorance, illiteracy and laziness on the part of individuals; corruption, nepotism, tribalism and favoritism; unfavorable physical environmental conditions such as environmental degradation and oil spillage and deficiency in skills and lack of a marketable skill.

Research Question 2

What are the effects of poverty?

Table 2: Mean and Standard Deviation of the respondents on the effect of poverty.

S/N	ITEM STATEMENT	\bar{X}	SD	REMARK
11	High dearth rate.	2.52	1.91	Accepted
12	People suffering from severe health problems	2.88	1.93	Accepted
13	Low birth weight, mental and physical illnesses.	2.62	1.08	Accepted
14	High rate of accidents due to poor children and women hacking the street to survive.	3.25	1.18	Accepted
15	Increase in Violence in families.	2.51	1.48	Accepted
16	Increase in Wife beating and child abuse.	2.60	1.11	Accepted
17	Increase in crime rates such as kidnapping, theft, armed robbery and ritual killings.	2.52	1.12	Accepted
18	Increase in illiteracy.	2.59	1.11	Accepted
19	Poor social development and insecurity.	2.53	1.32	Accepted
20	Poor economic and technological growth of a nation.	3.21	1.28	Accepted

The data analyzed in table 2 revealed that 10 of the items had their weighted mean values ranging from 2.51-3.25. Since the values are above the cutoff point of 2.50, it indicates that the respondents accepted the items as the effects of poverty. On the effect of poverty, the research study revealed that the effects among others and includes: large number of people suffering from severe health problems and high dearth rate; high rate of accidents due to poor children and women hacking the street to survive; increase in crime rates such as kidnapping, theft, armed robbery and ritual killings and increase in Violence in families, increase in Wife beating and child abuse.

Research Question 3

How can automobile education be used to reduce poverty?

Table 3: Mean and Standard Deviation of the respondents on how automobile education can be used to reduce poverty.

S/N	ITEM STATEMENT	\bar{X}	SD	REMARK
21	Training youths to acquire basic skills in automobile maintenance.	2.94	1.36	Accepted
22	Establishing automobile craft centers to train artisans.	2.77	1.12	Accepted
23	Training individuals in the use of scan tools for automobile diagnosis and repairs.	2.52	1.36	Accepted
24	Engaging youths in to acquire skills in Auto body repairs and spray painting.	3.27	1.61	Accepted
25	Training youths in Auto parts merchandizing business.	3.14	1.11	Accepted
26	Teaching youth's relevant skills in Auto air conditioning and refrigeration.	2.60	1.13	Accepted
27	Training technical college students on wheel alignment, balancing, and transmission repairs.	2.57	1.15	Accepted
28	Encouraging youths in Mobile automobile maintenance and repair shop.	3.59	1.27	Accepted
29	Training youths in Vulcanizing and tire repairs.	2.59	1.10	Accepted
30	Training youths in Car washing and furnishing	3.32	1.00	Accepted

Table 3 shows that 10 of the items presented had their weighted mean values ranged from 2.52-3.32. These values are above 2.50 indicating that the respondents accepted the items concerning how automobile education can be used to reduce poverty. Concerning how automobile education can be used to reduce poverty, the study among others identified the following: training youths to acquire basic skills in automobile maintenance; training individuals in the use of scan tools for automobile diagnosis and repairs; engaging youths in to acquire skills in Auto body repairs and spray painting; teaching youth's relevant skills in Auto air conditioning and refrigeration and exposing technical teachers to new technology relevant to teaching that motivate youths and increase their interest in automobile technology education both at the technical college level and in tertiary institutions.

Findings of the Study

1. Poverty is caused by deficiency in technical and vocational skills resulting to high rate of unemployment.
2. Poverty has devastating effect on the poor and causes increase in crime rate such as kidnapping, theft, armed robbery and ritual killings.
3. Automobile technology education can be used to reduce poverty by regularly training youths to acquire relevant technical skills in automobile diagnostics, servicing , maintenance and repairs needed to enable them secure employment in industries or to set up their own automobile workshop to practice their trade and be self employed and self reliance.

Discussion of Findings

On the causes of poverty, the study revealed that poverty is caused by deficiency in technical and vocational skills resulting to high rate of unemployment. The main causes of poverty in Niger State are unemployment, ignorance, poor governance, corruption, high inflation, environmental degradation, high population growth, among others. Specifically, in rural areas, where majority of farmers, reside, the major cause of poverty has been identified as the use of outdated and inefficient systems in agriculture and craft. Other contributory factors to low income in rural areas, according to Abubakar (1995), include inadequate infrastructure, lack of credit and marketing facilities, unfavorable rural institutions especially in respect of land tenure; ignorance; illiteracy and cultural and institutional rigidities. Williams (1984) has also identified lack of viable non-farm employment opportunities in the rural sector thereby leading to over-crowding on the land and under-employment of labour.

On the effect of poverty, the study unveiled that poverty has devastating effect on the poor and causes increase in crime rate such as kidnapping, theft, armed robbery and ritual killings. Specially the research study revealed that the effects among others and includes: large number of people suffering from severe health problems and high dearth rate; high rate of accidents due to poor children and women hacking the street to survive; increase in crime rates such as kidnapping, theft, armed robbery and ritual killings and increase in Violence in families, increase in Wife beating and child abuse. Dike (2009) reveled that many infants born into poverty have a low birth weight, which is associated with many preventable mental and physical disabilities. Not only are these poor infants more likely to be irritable or sickly, they are also more likely to die before their first birthday. He added that children raised in poverty tend to miss school more often because of illness. These children also have a much higher rate of accidents than do other children, and they are twice as likely to have impaired

vision and hearing, iron deficiency anemia, and higher than normal levels of lead in the blood, which can impair brain function.

Concerning how automobile education can be used to reduce poverty, the study among others identified the following: training youths to acquire basic skills in automobile maintenance; training individuals in the use of scan tools for automobile diagnosis and repairs; engaging youths in to acquire skills in Auto body repairs and spray painting; teaching youth's relevant skills in Auto air conditioning and refrigeration and exposing technical teachers to new technology relevant to teaching that motivate youths and increase their interest in automobile technology education both at the technical college level and in tertiary institutions. Automobile technology education can be used to reduce poverty by regularly training youths to acquire relevant technical skills in automobile diagnostics, servicing , maintenance and repairs needed to enable them secure employment in industries or to set up their own automobile workshop to practice their trade and be self employed and self reliance. It shows that automobile education which is a unit of vocational education is very vital in alleviating poverty in any nation. Technical and vocational Education has been recognized all over the world as a tool for alleviating poverty and enhancing technological development due to its emphasis on skill acquisition and skill development (World Bank,1996).Skill training enhances productivity and sustains competitiveness in the global economy. Worldwide, countries are renewing efforts to promote Vocational Education because it is the only way to prepare young people for the world of work, and reach out to the marginalized and excluded groups to engage them in income generating activities. Today in Niger State the high incidence of school dropout among secondary school students clearly highlights the importance of career development, which is achievable through Vocational Education. The students that cannot fit into the academic-oriented curriculum would need practical skills to enable them to be functional in the society.

Conclusion

Automobile education is skilled-oriented and employment motivated, and it is very obvious that, in this era vocational education is an indisputable means of reducing poverty in Niger State. This can be achieved through the acquisition of the relevant vocational skills, technical knowledge and abilities required to enter and make progress either in paid employment or self-employment. However, the means of acquiring this skills, knowledge and abilities are either lacking or in short supply due to some inhibiting factors.

Some of these inhibiting factors to poverty reduction through automobile education are lack of proper vocational guidance, negative public attitude towards vocational and technical education, inadequate

provision of basic infrastructure/facilities/workshops, inadequate funding of vocational education, poor remuneration of vocational teachers, inadequate and ill-equipped vocational and technical education teachers, and inconsistency in the review of the curriculum of vocational and technical education to reflect the realities of modern work environment. However, these problems can be transformed to better opportunities if governments and other stakeholders develop a frame work to further widen the prospects and ensure effective implementation of a functional automobile education which is a veritable tool for alleviating in poverty Nigeria.

Recommendations

The paper therefore suggests the following strategies which when adopted will help in the reduction of poverty through automobile education:

1. Vocational guidance services should be made compulsory and provided for, at all levels of vocational training to help the youth in making realistic vocational choices to enhance their interest to learn and acquire the skills in their chosen trade.
2. Graduating trainees should be encourage and motivated to always practice their trade to avoid idleness, unemployment and poverty which could tempt them to look for criminal ways of getting money such as kidnapping, theft, armed robbery and ritual killings.
3. Students or trainees should be encouraged to choose automobile trade which has several skills needed for employment and self reliance.
4. Youths should be train regularly to acquire relevant technical skills in automobile diagnostics, servicing, maintenance and repairs needed to enable them secure employment in industries or to set up their own automobile workshop to practice their trade and be self employed and self reliance.
5. Vocational and technical education teachers should improve communication and awareness about vocational and technical education programmes within schools and between schools. Parents and the business community should be acquainted with what vocational and technical education is all about.
6. The Federal government and Niger State government and other stakeholders should invest heavily in the provision of modern facilities for vocational training in technical colleges. This will go a long way in improving the quality of graduates produced thereby reducing unemployment and by extension poverty.
7. Technical training for vocational and technical educators is of greater necessity. This informs the need for a workable training policy that will influence the re-training of teachers in the use of techniques and new tools, and facilities provided by ICT.

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