EDUCATIONAL SECTOR REFORM FOR TECHNICAL DEVELOPMENT TOWARDS ACHIEVING SUSTAINABLE DEVELOPMENT

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Abstract

The role of education that emerges from the transformational change of China, India, Singapore and other countries is that class provides new insight into the dynamics of economic well-being. But Covid-19 pandemic exposes the inadequacy of the Nigerian education and training system concerning lack of capacity for virtual teaching-learning activity thereby constraining the country's technological progress, manpower development, economic growth and poverty reduction. The study employed qualitative approach to review the country's educational system to ascertain the areas of the system inefficient, and needed reformation. The study revealed the mismatch of the Nigerian educational curricula and manpower development. Therefore, to reposition the economy for educational sector reform and technological progress, amidst Covid-19 pandemic, the paper suggests, inter-alia, reduction of cost of governance, government expenditure restructuring in favour of the educational sector, review of primary and secondary school curricular, expansion of the technical college system, and encouragement of foreign direct investment (FDI) to promote technological diffusion.

Key Words: Technological progress, technological diffusion, manpower development, economic growth, poverty reduction.

Introduction

The role of education in the development of nation cannot be overemphasized. Educational systems were meant to produce the skilled manpower and the relevant knowledge required for technological advancement and economic development. Education is meant to prepare people to utilize their human and natural resources for productivity that will guarantee economic growth and development. Unfortunately, the current Nigerian educational system seem disconnected from the country's reality, thereby not having the required impact on the society. Many argued that the Nigerian educational system places too much emphasis on the accumulation of certificates rather than skills acquisition required for productivity. In other words, individual students struggle hard through any means to attain the Golden Fleece which is the certificate instead of the knowledge and skills which will make them become self-reliant (Florence and Ekpunju, 2015). However, the educational system of the country had experienced changes in policy and curriculum in 1977 and 1981 which brought in the 6-3-3-4 system. This curriculum was designed to assist the society to produce citizens that will promote the growth and development of the society in light of local and global competitiveness. It was designed such that the learning activities at school translate to the values of the immediate and distant society. The current curriculum emphasized on science and technology in line with the 6-3-3-4 educational system in which students are expected to spend 9 years in acquiring basic education (i.e 6 years in primary and 3 years in Junior secondary schools). Then another 3 years in senior secondary school and four years in tertiary education. These were done to make the country's educational system functional to enable make it relevant to the global changing world. For instance, the primary science and integrated science is now known as Basic Science and Technology, which cater adequately for the higher studies by providing a solid foundation on which to build upon and to inculcate in the child skills to face the challenges and possible hazards of the future. In each of the three levels, there were about twelve compulsory core subjects with one elective subject. English Studies, Mathematics, Social Studies, Civic Education, Computer Studies, Health and Physical Education, Religious Studies as well as French are among the compulsory subjects (Udofia, 2021). However, this curriculum is characterized with haphazard selection of subjects for secondary school pupils. Hence, to make secondary education relevant to generating technology for the new global economy, it is demandable that selection of should be guided by the needs of the society. This research work is designed to review the current educational curriculum of the secondary education with a view to find adequate subjects combination that will enable the students acquire the necessary technical skills for

technical advancement and development. In order to achieve this objective, this study is divided into five sections with this introduction being section one. Section two provides the review of the related work, while section three gives the methodology of the study. Section four is meant for the discussion of the findings, and lastly section five provides the summary and recommendation of the work.

Literature Review

This section provides the review of the related work which includes the structure of the reform of the new curriculum and the Challenges of technical education in Nigeria. The education sector reform is based on long-term framework for the actualization of educational target of the Sustainable Development Goals (SDGs). Structure of the Junior Secondary School Curriculum

The following are the basic features of the new curriculum:

The curriculum structure has three levels as follows:
- Lower BEC for Primaries 1-3
- Middle BEC for Primaries 4-6
- Upper BEC for Junior secondary 1-3

The subjects are grouped into core compulsory and elective subjects. Subjects and contents flow systematically from Primary 1 through Primary 6 to junior secondary.

The new curriculum has taken care of the shortfalls of the former system by introducing additional subjects in line with the vision of National Economic Empowerment Development Strategy (NEEDS) and for value reorientation, poverty eradication, job creation and wealth generation.

The basic education curriculum addresses gaps in the old curriculum. New subjects such as computer/ICT, French and Civic Education are introduced. Obsolete subjects are removed. Core subjects such as Basic Science and Basic Technology redefined. The curriculum contents are thematic. The curriculum covers a period of 9 years of continuous schooling (i.e. 6 years primary 6 and 3 years of JSS). These were done to make the country's educational system functional to enable it square up to the rapidly changing world particularly in the attainment of the targets of the Millennium Development Goals (MDGs). For instance, the primary science and integrated science is now known as Basic Science and Technology, which cater adequately for the higher studies by providing a solid foundation on which to build upon and to inculcate in the child skills to face the challenges and possible hazards of the future. In each of the three levels, there were about twelve compulsory core subjects with one elective subject. English Studies, Mathematics, Social Studies, Civic Education, Computer Studies, Health and Physical Education, Religious Studies as well as French are among the compulsory subject.

According to Udofia (2021) prior to the current of the secondary school curriculum, students at the senior secondary school category were expected to offer a minimum of 8 and a maximum of 9 subjects in their final examination. Traditionally, students in the senior Secondary School classes were expected to offer courses based on their departmental inclinations. But the current curriculum, as designed by the Nigerian Educational Research and Development Council (NERDC), requires all students in the senior school classes to offer five (5) compulsory subjects, irrespective of their departments or specialized fields.

These five (5) Core Subjects include the following:
- Mathematics
- English Language
- Computer / ICT
- Civic Education
- One Trade Subject (i.e Trade Entrepreneurial Skill)

In addition to the above, students are expected to choose from the following elected subjects based on their proposed area of specialization. The elective subjects are classified into three, namely, Sciences, Social Sciences (Business), and Arts (Humanities) as shown in the table below;

Sciences	Social Sciences (Business)	Arts (Humanities)
Biology	Economics	Government
Phisics	commerce	CRS/ IRS
Chemistry	Accounting	Literature in English
Geography	Insurance	Geography
Further Mathematics	Further Mathematics	Native Language
Agric/ Food &Nutrition	Marketing	French Language
Health Education		

Source: NERDC,2018

However, within the period of the implementation of the curriculum some lapses were observed particularly in the subjects combination. This curriculum is characterized with haphazard selection of subjects for secondary school pupils. To make secondary education relevant for generating technology for new global economy. Therefore it is demandable that the selection of subject be guided as shown in the table below;

Table 2: Proposed subjects group for Senior Secondary School Examination

Sciences	**Social Sciences (Business)**	**Arts (Humanities)**
English Language	English Language	English Language
Mathematics	Mathematics	Mathematics
ICT	ICT	ICT
General paper	General paper	General paper
Biology	Government	Literature in English
Chemistry	Geography	Government
Physics	Financial Accounting	CRS/IRS
Further Mathematics	Economics	Native Language
Technical Drawing	CRS/IRS	French Language

Source: Authors proposal, 2022

The general paper should incorporate basic topics in the following subjects;

- Commerce
- Civic Education
- Food & Nutrition
- Insurance
- Marketing

Methodology

The study employed qualitative approach to review the country's educational system to ascertain the areas of the system inefficient, and needed reformation.

This study significant facts about the issue under discussion using a theoretical and systematic analysis technique that included a review of previously published publications. It also used a variety of secondary data sources, such as periodicals, newspapers, websites, and government records, to support its results, conclusions, and suggestions. The paper might possibly serve as a forerunner to more in-depth future studies.

Challenges of Technical Vocational Education and Training (TVET) in Nigeria

Vocational and technical education can contribute to reduction of poverty and unemployment by providing the necessary skills required by the labour market and self-employment. However, this can only be achieved if issues affecting the Technical Schools are addressed. Some of the challenges affecting technical and vocational education in Nigeria include;

i. Inadequate qualified trained personnel for technical education

Most of the Technical schools in Nigeria lack the qualified trained teachers that can handle vocational subjects. Qualified vocational teachers play a significant role in ensuring that their students enjoy practical learning skills. More also, the primary challenge of vocational education is that qualified teachers may not accept a low paying job even if they have passion for teaching vocational skills.

ii. Insufficient facilities

Technical and vocational schools in Nigeria do not have the required facilities to train and educate students the vocational skills. Many primary and secondary schools in Nigeria lack the facilities and workshops needed to teach vocational and technical educational programmes.most of what is available in Nigerian schools are often outdated. This makes it difficult to provide high quality vocational skills to students.

iii. Lack of training and retraining to staff

Most secondary schools in Nigeria do not provide retraining to the teachers on vocational education. Training is critical aspect of education as it provides an opportunity for teachers to improve their knowledge. Without appropriate training, some skills can become outdated and this may impact negatively on the teaching-learning process.

iv. Lack of interest from political office holders

Political office holders in Nigeria show lack of concern in introducing vocational education into the school's curriculum. The technical educational stakeholders find it difficult to convince lawmakers and political office holders to give priority to providing the required for such technical and vocational programmes.

v. Nigerian value system

The mentality of Nigerians and their preference for university degree over technical schools certificate such as HND. There is too much emphasis on getting a university qualification, not bearing in mind whether the holder possessed the required knowledge and skills. Many people in Nigeria go to school with the mindset that education will provide them with the opportunity to be relevant in the society. However, the society requires technical and vocational skills that will provide the youth with the needed skills that will prepare them for gainful employment or become self-employed.

vi. Absence of Expert in the new subject area introduced

There is no adequate qualified teachers to teach the subject areas in various new subject have been introduced into the new curriculum. This makes it difficult to implement the new curriculum.

Conclusion and Recommendation

The study provides a review the country's educational system to ascertain the areas of the system inefficient and needed reformation. This is because curricula must be revised regularly to reflect changing market demand and dynamic economy. The study revealed the mismatch of the Nigerian educational curricula and manpower development. The study suggests a new subject's combination at secondary school level that will enable the students acquire the necessary technical skills for technical advancement and development. The study also identified some challenges facing technical and vocational education in Nigeria. Therefore, to reposition the economy for educational sector reform and technological progress, the study provides the following recommendations.

- Reduction of cost of governance
- Government expenditure restructuring in favour of the technical educational
- Review of primary and secondary school curricular
- Expansion of the technical college system, and
- Encouragement of foreign direct investment (FDI) to promote technological diffusion.

References

Florence, A.U. and Ekpunju, A.O. (2015). Entrepreneurship Skills Acquisition and the Benefits amongst the Undergraduate Students in Nigeria. *Journal of Social Sciences Education and Research,* 2(3), 9-14.

Federal Ministry of Education (2012). The 9-year Basic Educational Research and Development Council (NERDC), Abuja

Udofia, N.A (2021). The New Educational Curriculum in Nigeria, *Journal of InterdisciplinaryStudiesinEducation.available@http:www.reseachgate.net/publication/356039433*