

Educational Technology: An Imperative for Improving Education in Nigeria for National Development

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Abstract

This paper examines the role of educational technology in improving the standard and quality of education in the country for national development. The paper examines education and its role in national development. The meaning of development, national development and its indicators were discussed which include economic, political and social development as the indices. Educational technology and its resources such as computers, projectors, audio-visual materials, chart, were identified. The roles of educational technology resources in promoting teaching and learning were also discussed. Challenges hindering the effective integration of educational technology resources in the classroom were identified such as funding, lack of professionals in the area, lack of enough resources and facilities were among the identified problems. Recommendations were made and conclusion was reached.

Keywords: Educational Technology, Improved Education, National Development,

Introduction

Education is a tool that avails peoples with knowledge, skills, technique and information which empower them to know their right and duties toward their families, society and the nation. Education has helped in no small measure in improving the quality of life in any society. This could be seen in features exhibited through education which include removing poverty, safety and security against crimes prevention of wars and terrorism as well as commerce and trade. others include maintenance of law and other, woman empowerment, communication and upliftment of the economically weaker section of the societies.

One of the most important benefits of education in a society is that it improved the standard of living and assist individuals to contribute to the development of the nation. According to Ogbonnaya (2020) education is a very important key that can be used to unlock many closed doors in a country, when a nation understands the imperative of education as a catalyst to national development, a nation would experience astronomic socio economic growth in a short time. However, a developing country like Nigeria, need to realize the way of using education for attainment of improved economy. Thus, once illiteracy is eradicated, the citizens become enlightened and the standard of education is improved, this will result in a right actions expected by good citizens. It is noteworthy that once the citizens live right, the country will be in a better shape.

Also an educated person who is transformed cannot be involved in negative activities. This paper focuses on how education can be used improved to promote economy of the country and better the lives of the citizens. This can only be done through the use of various educational technology, resources in teaching and learning for national development. Etesike (2019) perceived development as a concept that has been defined by various scholars whom have geared their definitions to the quality increase of a society. Olagoke (2020) posited development as an idea that embodies all attempts to improve the conditions of human existence in all ramifications. It implies improvement in material well-being of citizens, not the most powerful and rich alone, in a sustainable way such as provision of social amenities

to the people, enhancing equal distribution of power and as well as aiding the economy of the country. National development refers to a nation's ability to improve lives of her citizens such measure of improvement may be material or social where the material aspect of the improvement may entail an increase in gross domestic product and in social aspect may entail literacy rate and availability of health care services.

National development is a phenomenon that graces a nation's effort geared towards an increase in political, economic, religious, social as well as the educational sector of the country. Thus, national development includes the process of modernization in all sectors of the nation the presence of peaceful co-existence among groups in the nation. The disunity in the Nigeria state had agitated the call for National integration in which education has roles to play. Education encompass pedagogical skills that can impact the national values, beliefs, moral and norms in the students, and foster oneness among them which can further aids national development.

Economic development is a multidimensional process. It is a dynamic process of change. Economic development is a positive change whereby opportunities, the living standard of people etc. increase along with the economic prosperity of the nation. The measure of the extent and pace of economic development and expressing it in any specific index is a very difficult task. Regarding the indicators of economic development. There are different indicators of economic development, these refer to the measurement of indication of the change that takes place when a country goes on developing process, economic development is a dynamic and continuous process. Its indicators vary with the passage of time. The set of indicators defined during any particular period may not be always appropriate. However, the main indicators of economic development are classified into two categories (David, 2021).

Income based measurement of economic consist of mainly per capital income. Those indicators of economic development, measure economic development in terms of the quality of life, such as the physical quality of life, such as the physical quality of use index (PQLI), Basic needs index, and Human development index (HDI) (Alireza & Singh, 2021). Per capital income index is a traditional and most widely used index of development, which means an increase in real per capital income over longtime is widely used in measuring economic development. Quality of life index due to the different shortcomings of the per capita GWI economist and policy makers at present are not satisfied with the use of this index as an indicator of welfare or development. As a result, many of the intellectuals and policy makers have advocated discarding income-based indicator of development (Alireza & Singh, 2021)

Concept of Development

The term development has various meaning to different people and can be explained in different context e.g. the development needs of a starving population must be different from those where there is sufficient nutrition (Olagoke, 2020). Development has often been confused with "economic growth" as measured solely in terms of annual increase in pre-capital income or gross national product, regardless of its distribution and the degree of people's participation in effective growth (Mahmood, 1991 cited by Rauch, Kime and Dan-Singleton, 2020), Rauch et al. (2020) further asserted that:

"Development means the condition for realization of the human personality. It is evaluation must therefore take into account three linked criteria where there has been a reduction in (a) poverty (b) unemployment (c) inequality". (Rauch et al., 2020).

According to Pearson (1992) cited by Seidel and Shavelson (2017), development involves "An improvement qualitative, quantitative or both in the use of available resources. He also asserted that,

"development does not refer to one particular aspect on social political and economic betterment. Instead, it is a hybrid terms for a myriad of strategies adopted for socio-economic and environment transformation from current state to a desired one"

Indicators/Parameters of Development

Quality of life index: this is based on different factors such as availability of life (food, clothing, shelter etc.) equally in the income and wealth, literacy, healthcare, clean environment, political and civil right etc. by talking some of these indicators of quality of life, several attempts have been made in the index which may be called the quality life index.

Physical quality of life index: the quality of life index was made by Morris D. Morris at the end of the 1970. this has come to known as the physical quality of life index (PQLI). It is one of the major human centric indicators of quality of life or well-being of a country (Webbink, 2021).

Economic development: this index has three (3) indicators of quality of life:

1. Life Expectancy (LE)
2. Infant Mortality (IM)
3. Basic Literacy (BL)

Human Development Index (HDI)

The human development report (1997) has defined human development as the process of widening peoples' choice as well as raising the level of well-being achieved. Also, Gerald and Harmsen (2019) expressed the human development index as a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living. Traditionally economic development has focused exclusively on the expansion of only one choice-income but the concept of human development has gone far beyond income and wellbeing. It covers all human choice-economic, social, cultural and political.

Indicators of human development are:

- Health index
- Education index
- Income index (Alireza & Singh, 2021)

Political Development

Development of any country is indicated for example based on these three basic human right, which include; right to live; right to move and speak freely and right to freely chosen employment. Thus, the most basic measurement of a sustainable development for human are embedded in various rights which are interwoven with development and safe environment. It is not a coincidence that some of the world's worse environment and development problem have been identified in countries with worst record for observing either human right and trade union agreement. There are also, aspect of human right focusing on child labour, freedom from discrimination, environmental safety and decision making. Likewise, there is right to organize, right to participate in decision making and freedom of religious practices which are some of the indices of political development of any country.

Social Indicators of Development

The main social indicators of development include education, health, employment and unemployment rates along with gender equality. Other indicators for social development according to the World Bank and United Nations include level of enrolment in school at all levels of the educational system, gender parity for primary school and percentage of government expenditure on education among others. At some levels, the social indicators of development for any nation or region can be determined using death rate, child birth, fertility rate, suicide rate and rate of peaceful coexistent among people (Webbink, 2021).

Roles of Education in National Development

Education has been defined by various Educationists, philosophers and scholars from different fields. According to Seidel and Shavelson (2017), the word education is derived from two Latin words "educare" and "educere", meaning to train, to form or to mould, in order words it means the society to train, forms or to moulds the individual to achieve the social needs and aspiration. "Educere" on the other hand, means to build, to lead or to develop. This is mostly favoured by the humanists who argue

that the function of education is to develop the natural potentialities of the child to enable him to function in the society according to his abilities, interest and needs (*Mohamad, 2021*).

Education plays a vital role in the development of the nation in various ways, one of these ways is in the area of manpower development which contributes immensely to national development. *Benjamin* (2016) stated that, a developed or an educated country is the one that has enough manpower and each person occupies his or her rightful position to enhance the growth of the society. In support of this, *Afolabi and Loto* (2019) have also remarked that, education is largely perceived in Nigeria as an indispensable tool which will not only assist in meeting the nation's social, political, moral, cultural and economic development but will also inculcate in the individual knowledge, skills, dexterity, character and desirable values that will foster national development and self-actualization. It is clear that education trains an individual to be a useful member of the society and to meet up with the need of the society for national development. Unfortunately, the standard of education in this country is deteriorating day by day at all levels, which we can say if this problem persists, it will not only affect the educational sector alone, but it will definitely bring a setback to national development.

Educational Technology and Its Resource

Educational technology has been seen as the latest innovation in educational practice. Various attempts have been made in defining the term educational technology. Association for educational technology (AET) (*Omole, 2018*) defined it as study of ethical practice for facilitating learning and improving performance by creating, assigning and managing of appropriate technological processes and resources. According to *Omole* (2018), educational technology is essentially concerned with finding solutions to the problems of teaching and learning through the application of appropriate media or modern technologies especially electronic media (hardware and software). Resources are things that are resorted to, for and or support (*Benjamin* (2016)). Therefore, Educational technology resources are those things persons, institutions and or systems that are resorted to for supporting teaching-learning process. These include teachers (Counsellor), materials (books, charts, films), settings (libraries, classrooms etc.) tools and equipment (audio visuals, computers, projectors) and activities (simulation programme of instruction, field trips etc.)

Some educational technology resources are developed and used for the purpose of teaching and learning, these are called learning resources by design, while others exist as part of everyday use in our environment, but can be discovered, applied and utilized as teaching and learning resources at schools. Such resources are called real-world resources, especially, when applied and utilized for teaching and learning, they are referred to as resources by utilization.

Roles of Educational Technology Resources in Teaching and Learning for National Development

The indispensable role of technology in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education, experts in the field of education agree that when properly utilized, technology holds great potential and promise in improving teaching and learning, in addition to shaping work force opportunities (*Benjamin, 2016*). Educational technology resources if adequately made available and effectively utilized in everyday classroom article, they will facilitate teaching and learning process and will equally make the process less cumbersome and less stressful to both the teachers and the learners.

Education is a very huge investment and in every investment returns are expected when resources are heavily invested and the returns are not commensurate with the heavy resources put in the investment, problems are bound to ensure. Educational technology and its resources have several benefit in the educational system. They have a tremendous positive impact on education generally (*Salako, Boluwaji & Coker, 2018*). Educational resources advance not only on how students learn but also how teachers teach both effectively and efficiently. They determine how educational services are delivered. In the present day teaching and learning emphasis is laid more on the learner or student-centred approach to learning. Hence *Omole* (2018) observed that, past researches show that if technology is appropriately implemented, especially in a student-centred approach, it can effectively promote educational goals

such as 21st century skills in comparison with the traditional teaching and learning style. This implies that, with educational technology resources, learners can construct their own learning experiences and make some vital decision on what they learn, when to learn and how they learn. This is also referred to as self-directed learning approach, which according to Stewart and Kenyon (2019) is a learning method whereby the student takes initiative for learning. This includes activities whereby students are directly involved in selecting, managing, and assessing their own learning activities, while teachers provide advice, direction, and resources to support the students.

It utilizing the various technologies at their disposal for effective learning. In support of the above position. *Salako, Boluwaji and Coker* (2018) posited that educational technology offers more opportunities for an extended learning with the internet. With the internet, students can access course materials from the comfort of their homes and engage with numerous online resources available for learning through the computer. Educational technology is imperative in the sense that it serves as an ultimate means of improving our educational system. *Mohamad* (2021) predicted that “book is no longer the king and the world had long become a global village”. This assertion highlighted what is obtainable in the 21st century world, where knowledge acquisition, information gathering and skills building had long gone digital beyond national and continental borders and far above the crude instrument, methods, means, processes and product of the 20th century.

Human attitudes are currently being largely influenced and sharpened by international media, using gadgets, means and strategies designed and developed for information super highway. According to Kingdom and Job (2019) “ICT which is an educational technology resources is a vital tool in educating, preparing and equipping learners with required knowledge for global work place. It educates learners so that they can continually adapt to work world of continuous technological innovation.

Challenges Facing Educational Technology in Promoting Economic Development

The relevance of educational technology toward achieving national development has clearly been spelt out. However, there are still some challenges that are bringing setback in the use of the technological resources in the class, these challenges include:

Lack of awareness, qualified human resources, political support, media education/positive attitude, finance and technical knowhow (Oigara, 2019). Etesike (2019) also identified lack of appropriate infrastructure as one of the challenges to the effective application of educational technology and its resource. Ismaila (2022) identified poor ICT policy and project management strategy as another big barrier for the integration of educational technology and its resources is the countries education system. Other challenges include decreasing teacher professional development, little or no attention paid on educational technology development and increasingly demand for financing the cost of educational technology and human resources in the country. Lack of adequate funding of most of the education project also constitutes a major problem in the education sector. According to Ismaila (2022), dearth of infrastructure, inadequate classes and offices, laboratories for teaching and research, shortage of books and journals are some of the problems that besets the education sector in the present times.

Conclusion

This paper has shown that application of educational technology is essential for the attainment of improved and quality education in Nigeria that can guarantee national development. Though, in spite of the clear policy targeting adoption of educational technology in our schools. There are still challenges that are persistently denying the total implementation educational technology in education. Therefore, deliberate efforts are required in order to translate our educational value into national development.

Recommendations

The following are some of the recommendations made to overcome the identified challenges.

- Government should use all available means to ensure that people are enlightened on the reliance of education technology and resources in promoting teaching and learning.

- There should be training and re-training on application of education technology on education for both teachers and technical staff in their respective field.
- Both the teachers and the students should have that mindset and form the habit of using educational technology resources at all times when necessary in teaching and learning.
- Resource centres should be built at all levels of education in schools for shortage, utilization and retrieval of educational resources as at when needed.
- Policy makers should ensure that the policies are well implemented as stated through constant monitoring to evaluate the level of implementation.
- Finally, strong financial backing should be provided in order to ensure appropriate and adequate maintenance of the resources as well as purchasing new ones whenever the need arises.

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