



NEW TRENDS AND MODERN APPROACHES IN QUALITY EDUCATION: IMPLICATIONS FOR PHYSICS EDUCATION IN NIGERIA

Akano Benedict Ubawuiké

Department of Physics, Federal College of Education, Kontagora

drbuakano@yahoo.com

Keywords: New trends, Quality Education, Modern Approaches.

ABSTRACT: *The need for global pursuit of quality education has been expressed by the United Nations' Sustainable Development Goal 4 which expresses an inclusive, quality and equitable education and the promotion of lifelong opportunities for all. This paper focuses on the need for Nigerian schools to make shift from the use of traditional teaching methods that are teacher centered, to more modern and innovative methods of instruction that are learner centered. This shift will enable students to acquire appropriate skills that are required in the workplace and make them useful members of the society. The paper tried to define quality education and its components, and explained the appropriate usage of the pedagogical concepts: methods, techniques and approaches in instruction. Lastly the paper was concluded with innovative teaching methods deemed to be learner centered and capable of inculcating the requisite 21st century skills to learners that will solve the unemployment problem besetting our country.*

INTRODUCTION

We are living at a time of an alarming hue and cry for quality education in Nigeria. This cry is necessitated largely by the state of growing unemployment of our youths that is worsening as our institutions turn out fresh graduates every year. Beside the above, there is also the general feeling and consensus amongst researchers and employers of labour that the quality of education received by learners from our educational institutions is not adequate in meeting the challenges of modern life and the global competitiveness required in the workplace.

Buttressing these claims, the National Bureau of Statistics according to the Punch newspaper of 27th February, 2017 reported that unemployment in Nigeria increased from 9.9 percent in 2015 to 16.7 percent in 2016. This year 2022, unemployment rate in now is 33.3 percent as against 27.1 percent in the second quarter of 2021. This implies that about 23 million Nigerians are unemployed and this rate of growth is worrisome especially when one takes into cognizance that the majority of these people are within the age bracket of 18 and 35 years,

Akano Benedict Ubawuiké



which is supposed to be most productive age gap. (Utomi, 2022; Akano & Akpokiere 2018)

One of the reasons people give for youth unemployment is the unavailability of jobs. While this is true, some other persons have opined that most Nigerian Youths are not just unemployed, but are unemployable due largely to the fact that they lack employable skills. Hence, the Honourable Minister of Labour and Productivity, Dr. Ngige according to the National Daily Newspaper of 7th April 2022 lamented that Nigerian youths are unemployed because they lacked digital and functional skills. The question now is “who is to blame for graduate lack of essential skills? Is it the graduates or the educational institutions they attended? Or the policy makers who stipulate the aims, means and ends of education in Nigeria.

In response to the above, the former Ekiti State Governor, Kayode Fayemi and the immediate past chairman of Nigeria Governors forum, recently challenged the stakeholders of Nigeria education to evolve new approaches to teaching instead of the colonial methods that has so far not supported our national development. He therefore called for a paradigm shift from the “white collar to the “blue collar” educational enterprise in Nigeria (Sun News Online, 2022).

Transiting from the didactic and traditional methods of teaching to the modern and innovative ways that stimulate deep learning, creativity and problem solving is the right thing to do at this time, and to my mind this is what this conference wants to achieve. I would urge that discussions from the lead paper and the plenary sessions this week should accentuate this goal and come up with a communique of practical steps that will result in innovative methods of teaching and learning in our

classrooms and to ensure quality educational in Nigeria.

1. QUALITY EDUCATION: CONCEPT CLEARIFICATION AND CHARACTERISTICS

Education is generally recognized all over the world as a vehicle for social progress and national transformation. The total gamut of improvements in the socio-economic life of man from the creation to modern civilization have been made possible through the portals of education. This undebatable great strides of education has propelled unshaken faith in education as a change agent throughout the whole world. In Nigeria, the Federal Government through the National policy of education (NPE, 2014) expressed that education is the instrument par excellence for the realization of national development. Similarly, the United Nations have attempted to use the power of education in the realization of her global visions and goals of a prosperous, peaceful and a happy world.

For an example, the World Conference on Education for All held at Jomtien, Thailand in 1990, the United Nations expressed that education is the right of every child, youth and adult and thereby pledged for a universal basic education and mass literacy for all by 2000. Also in 2015, the UN went further to advocate for not just an education that offers basic numeracy and literacy to learners but for a quality education for all by 2030.

The Goal 4 (SDG4) of the 17 Sustainable Development Goals (SDGs) is an educational goal that is designed to ensure inclusive and equitable education that promotes lifelong learning and opportunity for all. The ten targets of SDG 4 by 2030 are as follows:



1. All boys and girls would complete an equitable and quality primary and secondary education that will lead to relevant and effective learning outcomes.
2. Ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.
3. To ensure equal access for all women and men to affordable and quality technical , vocational and tertiary education, including university
4. To substantially increase the number of youths and adults who have relevant skills, including skill for employment, decent jobs and entrepreneurship
5. To eliminate and ensure equal access to all levels of education and vocational training for vulnerable, Noincluding persons with disabilities, indigenous peoples and children in vulnerable situations
6. To ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
7. To ensure that all learners acquire knowledge and skills needed to promote sustainable development and sustainable lifestyle, human rights, gender equity, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and culture's contribution to sustainable development
8. To build and upgrade education facilities that are child, disability and gender sensitive and effective and provide safe , non-violent, inclusive and effective learning environments for all.
9. To substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing states and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programs, in developed countries and other developing countries.
10. To substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developed countries especially least developed countries and Small Island developing states.(Unesco,2016)

The above goals are indeed phenomenal and highly ambitious and serves as bench mark for all nations, including the developing ones to pursue for a quality education.

What is Quality education?

Defining quality education is not so easy to do because the concept is a relative term and very evasive. There are therefore many definitions of quality education available in literature but all attests to that fact that the concept is complex and multifaceted in nature. The advanced learner's dictionary (2010) defines quality as a standard of something when it is being compared to something of its kind. It therefore expresses the idea of how good or bad something is or its degree of its excellence. The measure of this attribute therefore varies from one person to another, and from one location to another. It is possible that an education tagged "quality education" by one individual could differ from what another person could see it to be or what



another person in a different location could term it.

To measuring quality education therefore, many factors must be put into consideration, such as the learner, curriculum, the learning materials, teacher factors, learning environment and the learner outcomes etc. For the purpose of universality of concept clarification, UNICEF (2000), in providing a definition for quality education has identified the following as components that are indicative of criteria for quality education:

- I. Learners who are healthy, well-nourished and ready to participate and learn and supported in learning by their families and community
- II. Environment that is healthy, safe and protective, and gender sensitive and provides adequate resources and facilities
- III. Content that is reflected in relevant curricula and materials for acquisition of basic skills especially in the area of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition HIV/AIDS prevention and peace.
- IV. Process through which trained teachers use child centered teaching approaches in well managed classrooms, and schools and skilful assessment to facilitate learning and reduce disparities.
- V. Outcome that encompasses knowledge, skills and are linked to the nation goals for education and positive participate in society.

With the above definition and components of quality education one can see that quality

education involves, healthy and well-nourished learners, well trained and motivated teachers who use learner centered approach and achieve quality outcomes. With Nigeria as a signatory to the United Nations' Agenda 2030, can we say that she has made progress in the realization of this goal 12 years after? If one may ask, what can we say about the state of schools in Nigeria? Do we have quality learners learning in quality environments? Are our learners healthy and nourished? Are the teachers well motivated and trained?

2. NEW TRENDS AND MODERN APPROACHES FOR QUALITY EDUCATION IN NIGERIA

The Nigerian educational system is heavily dominated by teacher presence and with teacher activities being carried out at the expense of learners' participation in instruction. The teacher is seen as the seat of wisdom and one who dispenses knowledge to passive learners who are seated before him as empty vessels or tabula rasa ready to be filled up with regurgitated knowledge. So, despite age long learning theories which have emphasized that learners should be allowed to construct their own learning with the teacher as a facilitator, our classrooms has continued to be dominated with didactic and traditional teaching methods handed over to us by the colonial masters well over a century ago. (Akano, Ugwu & Ikuanusi, 2016)

It is indeed sad to note that while the western nations have digitalized their education through technology, we have held on to the status quo: the extant conventional methods of "chalking, talking, memorization and note copying" education that has kept us on the ground, while others have flown above to host their national flags on the moon. Traditional teaching methods



permeate the fabrics of most Nigerian classrooms and has served the means of the mechanical preparation of students to scale through School Certificate and other examinations and to cover the over loaded school syllabuses.

This situation has still remained the same till date. In fact what happens in the average Nigerian classroom, is that the teacher enters the class and breaks the silence with a brief chat as an introduction, go on to read to the students from his notes and finally ends the class by asking the head boy to copy notes on the board for the class at any available period.

Our case could be like that of the historical dinosaurs that became extinct because they could not change with the changing times. The biggest black nation in the world and the giant of Africa must embrace innovations and adapt to modern classroom processes that support sustainable development now that the technological winds of change is transforming education across the world.

There is no doubt that our education has undergone so many curricular and system changes in the last five decades of independence and large sums of money has been invested by the Federal Government, but all that has not produced the needed radical shift in the teaching methods and the classroom environment that enhance learner- centered instruction and the robust use of technology.

As an Igbo adage says a bird that flew from the ground and patched on an ant hill is still on the ground. It is therefore not a surprise why we are still where we are. A place where our crude oil, cash crops, skins and hides, and minerals are exported either semi processed or in their natural states without serious value addition. We

are also beset by myriads of challenges ranging from hunger, epileptic power supply, nonexistent pipe bone water, bad roads, lack job opportunities, high inflation and insecurity.

What are new trends and modern approaches to learning?

New trends in the context of our discussion refers to innovations that are newly emerging in the field of education which are rapidly changing the conventional held options and alternatives in education. They include new curriculum that are designed to meet today's and future realities. Many of the new trends are based on educational research findings or current events occasioned by technological changes in society.

Approaches on the other hand according to Taba (1962) in Lawal (2001) is a general education orientation that is founded on certain theories of knowledge and values of learning and of society, and how they interact harmoniously and progressively. The two dominant instructional approaches used all over the world today are the teacher and learner- centered approaches and they have their roots from two different theoretical schools of thought or disciplines.

In pedagogical discussions, we have observed the naïveté use of the concepts: Methods, Techniques and Approaches and very often people we think are knowledgeable conflate them as if they are synonymous to each other, just as they do the concepts, Aims, Goals and Objectives. In the proper usage, an instructional approach and aims are at the top most level of hierarchical education and instructional stage and are used by the Government agencies and policy makers. Methods and goals are at the intermediate levels and are derived from the approaches and aims and are used at the level of



curriculum planning and implementation (Lawal, 1997)

From the underlying fundament and according to Lawal (1994), when policy makers formulate aims of education, they also suggest instructional approaches that are consistent with such aims. The curriculum planners: syllabus designers and textbook authors at the inter-mediate level take the aims and approaches and reduce them to manageable goals and methods of instruction. At the last stage, the teachers further break the goals and methods to specific objectives and use appropriate techniques in their lesson presentations. These techniques are those teaching skills that are used by a teachers during lessons. They include, planning, organizing, explaining, questioning, evaluating etc.

Summarily and for exemplification, a policy statement that stipulates “Quality education” as an aim, naturally suggests a learner-centered approach and from this, curriculum planners/textbook writers could deduce goals and methods that are consistent to the aim and approach. They may therefore recommend learner- centered methods such as discovery, inquiry, laboratory and discussion etc. The class teacher at the last rung of the ladder will state objectives and use techniques that align perfectly with the methods and goals in the planning of lesson.

Examples of New Trends in Education and modern methods teaching in line with quality education.

The UNICEF (2000) in defining quality education has specified the learner centered approach. The following trends brought about by technology now impart on young learners different from what it used to be in the past. Dani (2022) reports the following;

1. Collaborative learning

Through this innovative method of learning, students and teachers come together either physically or remotely by means of ICT to work on projects and carry out discussion in order to solve assigned problems or group activities. Students gain collaborative and interpersonal skills though working together as a team and interacting with their peers and the teacher.

2. Learning with digital tool like Mobile based devices

WE are in a digital world and almost every student has one mobile device or another. With Mobile based learning devices, learning can now take place outside the four wall of the classroom and this is referred to as mlearning. The availability of internet facility, learners can benefit from both elearning and m learning to study at their own pace anytime and anywhere.

3. Social Media Learning

Students can now learn through the social media as technological trends are now changing the face of education. Lessons are available now on tiktok, Facebook, ebooks with embedded videos etc. young people as young as ten years now have social media accounts from different platforms and are able to share educative videos with their friends and peers and teachers and make comments on posts. Teachers should encourage this model of instruction because it enables students to stay interested in the learning material and increases their engagement

4. Interactivity in Classroom

Classrooms are made more interactive with technological gadgets are used. Use of ebooks with embedded videos, audio files and virtual laboratories can change the face of the classroom from its traditional setting. Discussion and flipped classrooms instructional methods are



been gaining more grounds as a ways of creating interaction and students engagement in learning

5. Gamification Education.

The use of computer games in learning is now trending across the world. Gamification is now very popular in schools because the help to increased learners engagement and competition. Students are made to gain more points and increase their moral and serve as a motivation perform better every time.

3. IMPLICATIONS FOR PHYSICS EDUCATION IN NIGERIA

The above discussion about quality education and the employing of modern teaching methods by Nigerian teachers lend themselves to so many implications for physics education in the following ways:

Firstly, for the teaching of physics to be qualitative, it must be learner centered. The use of hands on and activity based to allow learners to acquire prerequisite skills of inquiry which are needed in scientific research and in the workplace.

Secondly, Physics is often stereotyped a male exclusive discipline with a poor female representation. Quality education preaches equal access and efforts must be made to make physics education girl/ women friendly so as to bridge the gender gap.

Thirdly, facilities for physics education and the learning environment must be gender sensitive, especially the use of masculine pronouns of he/him in physics textbooks and classrooms instead of inclusive pronouns. Fourthly, quality in the remuneration

and welfare of physics teachers is important in their ability to render quality service. Efforts should be made by the government and school management to take adequate care of teachers.

Lastly, learning facilities must be accessible to those with disabilities. They must have easy access to lecture halls and laboratories.

CONCLUSION

The search for quality education that yield quality outcomes has greatly affected the face education in tremendous ways. The ways students learn and ways education is delivered today has undergone changes that has been brought about by technology. In this paper effort has been made to define quality education and has revealed the state of the Nigerian classroom as being permeated by traditional instructional practices as against the innovative and modern practices that are learner centered. It is concluded with a few trends in education which can be adopted to enrich our students learning experiences and help them acquire essential skills require in the 21st century workplace.

REFERENCES

- Akano, B.U. and Akpokiye, U. R. (2019).The effect of entrepreneurial education course on the entrepreneurial intentions of federal college of education students. *International Journal of Education, Learning and Development (IJELD)* 7 (6) pp14-23
- Akano B.U., Ugwu D.U. and Ikuanusi F.N. (2016). Enhancing students' non-traditional classroom experience in Nigeria through science process skill

Advance Journal of Current Research

Adv. J. C. Research

Vol. 7; Issue 12; 2022

December-2022

ISSN: 2323 – 1744

Impact Factor: 5.47

Advance Scholars Publication

Published by International Institute of Advance Scholars Development

<https://aspjournals.org/Journals/index.php/ajcr/index>



based learning. *International Journal of education and Evaluation* 2 (3) pp. 74-80

Newspaper

<https://dailypost.ng/2022/04/07>

COEASU (2021). “The objectives of the union” *The constitution and code of conduct of the Colleges of Education Academic Staff Union*. COEASU p2.

UNESCO (2000). “Defining Quality Education’: *A paper presented at the International Working Group on Education*. Florence, Italy June 200. UNICEF, New York, NY, USA

COEASU (2014). “Wike not qualified to be Minister for Education”. *Daily Post Newspaper*. dailypost.ng/2014/03/05

UNESCO (2016) SDG: Education, Global monitoring report. en.unesco.org/gen-report/sdg-goal-

Dani, V (2022). Trends in education technology that will have major impact KITA300. kita300.com/trends-in

Utomi Jeromi-Mario (2022) Unemployment and a national 40 percent of hopelessness. *The Guardian Newspaper*: guardian.ng/opinion/unemployment-and-a-nation-40-per-cent-of-hopelessness/

Lawal R. A. (1994). A sequential three methods approach to the teaching of initial reading in English as a second language. *Journal of Curriculum and instruction*, 4 (1&2) pp28-36

Taba, H. (1962). *Curriculum Development: Theory and Practice*. New York: Harcourt and Brace and World.

Lawal R. A. (1997). Inter-relationship among aims, goals and objectives in the language arts curriculum, *International Journal of Educational Management*, 2 (1) pp. 99-106

Lawal R. A. (2001). Concepts in Education related to teaching 1V in *I.O. Abimbola Ed. Fundamental Principles and Practice of Instruction* Ilorin: Tunde Babs Printers. p109

Federal Ministry of Education (2014). *National policy on education*, Abuja, NERDC.

Opejobi S. (2022). Ngige reveals why Nigeria youths are not employed. *Daily Post*

Akano Benedict Ubawuike