

**THE EXTENT OF IMPLEMENTATION OF UNIVERSAL BASIC
EDUCATION (UBE) PROGRAMME IN NIGERIA: FOCUS ON
BASIC SCIENCE CURRICULUM**

by

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Abstract.

A critical review of the extent of implementation of the Universal Basic Education (UBE) programme in Nigeria with emphasis on Basic Science Curriculum, the general objectives, functions and challenges is presented. The assessment exposed the challenges to the implementation of Basic Science Curriculum and possible responses to the difficulties arising from the introduction of the 9-year- continuous Basic Education System. It is here-in advocated that teachers cultivate the spirit of creativity in the students through exploration of the environment and improvisation for effective implementation of the goals of the UBE programme with the inherent contributions to the nation building progress and positive transformation of the overall education system

Introduction

Curriculum is the organized knowledge which the society presents to the learner in order to achieve a pre-determined goals of education (Etuk, and Edema, 2004) in (Ibe 2010). Curriculum becomes relevant if it addresses current and anticipated needs, problems and aspirations of the learner and society. The Universal Basic Education Curriculum which is in use in Nigeria for science teaching and learning had built-in strategies where learners are required to be involved in inquiry and related activity that can develop critical thinking skills. The enormity of social, economic and political problems confronted by societies (especially Nigeria) makes it

imperative that learners develop skills of critical thinking and analysis. Critical thinking involves the ability to identify problems, raise questions about it, seek for information, analyze them and make inference logically. Basic Science (formally Integrated Science) presented in its holistic nature can avail the learner of a web like approach to economic related problems. For instance, emerging issues such as HIV/AIDS, environmental pollution, entrepreneurship that have been infused can be well tackled when subject boundaries are blurred.

The UBE Programme.

The goals of UBE are outlined in the implementation guidelines (FRN). The goals of the programme are to universalize access to basic education, engender a conducive learning environment and eradicate illiteracy in Nigeria within the shortest possible time. Thus in a bid to actualize these goals, the following are clearly stated as specific objective;

1. developing in the citizenry a strong consciousness for education and strong commitment to its vigorous promotion;
2. provision of free and compulsory universal basic education for every Nigerian child of school going age;
3. reduce drastically the dropout rate from the formal school system through improved relevance and efficiency;
4. catering for dropout and out-of-school children/adolescence through various forms of complementary approaches to the provision of basic education and
5. ensuring the acquisition of the appropriate level of literacy, numeracy, manipulative, communicative and life skills as well as the ethical, moral and civic values needed for laying solid foundation for life-long learning.
 - a. The document further spells out whom the programme covers. They are;
6. Formal basic education encompassing the first nine years of schooling for all children.
7. Nomadic education for school age children of pastoral nomads and migrants fishermen and
8. Literacy and non-formal education for out-of school children, youths and illiterate adult.

Primary education is now more focused with the establishment of the Universal Basic Education for all children through the UBE Act, 2004. The UBE Act 2004 provides for compulsory free Universal Basic Education for all children of primary and junior secondary school age in the Federal Republic of Nigeria. The UBE bill was passed into law by the House of Representative on 5th December 2003 and by the Senate on 15th March, 2004, section 1 part 1 of this Act states:

without prejudice to the provision of item 30 of part 11 of the second schedule and item 2(a) of the fourth schedule to the 1999 constitution dealing with primary education, the Federal Government's intervention under the act shall only be an assistance to the State and Local Government of Nigeria for the purpose of uniform and qualitative basic education throughout Nigeria.

The significance of this is that the major responsibility for primary school education lies with Local and State government while the Federal Government supervises and oversees to ensure uniformity and to maintain standard (Maduewesi,2005). The implication of this is that primary and secondary education is so basic and crucial that they require the collaboration and attention of the three tiers of government. Section (2) part 1 of the UBE Act,2004, states:

There is established a body known as the Universal Basic Education Commission (in this Act referred to as the "commission" which shall have a board.

Functions of Universal Basic Education Commission

The following functions among others were assigned to the commission:

- 1 Formulating policy guidelines for the successful UBE programme.
- 2 Receiving fund from Federal Government and allocating same to all relevant agencies implementing the UBE programme.
- 3 Prescription of minimum standard for basic education throughout Nigeria.
- 4 Enquiring and advising Federal Government in the funding and orderly development of basic education in Nigeria.
- 5 Collating and preparing periodic master plans for the development of education in Nigeria including areas of possible intervention in the provision of adequate basic education facilities.
- 6 Co-coordinating the implementation Of the Universal Basic Education related activities in collaboration with non-governmental and multi-lateral agencies.
- 7 Carrying out such other activities that are relevant and conducive to the discharge of its functions under this act

Challenges to the Effective Implementation of UBE

There is no evidence to show that efforts aimed at good quality education for all are being pursued. The schools in the rural areas are the worst hit by lack of teaching and learning materials. Theirs appears to be the crumbs from the masters tables (the urban schools). The disparity still exist and the low socio-economic groups manifest low achievement (Chimambo,1999, Kadzamira and Rose,2003). The policy formulators, implementers and those responsible for taking care of the programme do not send their children to the public schools which they manage. This is clear demonstration of the fact that they do not have confidence in the system they

superintend over. Thus the poor pupils are further marginalized in the face of globalization.

The scheme has not adequately addressed the problem of poor or dilapidated infrastructure in schools. There are many pupils who still sit on bare floor to receive instructions. This makes the school environment not to be conducive for learning. Nothing within the school environment by this situation will attract the child. This may be one of the reasons for some pupils to drop out of school. Some of these facilities are left for the community to provide. A study carried out by Adepogy and Fabiyi(, 2007, revealed that majority of rural communities were not involved in the provision of infrastructure.

Another problem is the financial allocation to the programme. The financial allocation to the programme is not commensurate with the goals. The target of eradicating illiteracy in the country by 2015 appears a failed dream. The economic hardship still makes pupils to drop out of school to hawk or engage in menial jobs to supplement the income of their poor parents. The UBE act 2004, provides that funds be mobilized from different sources as follows:

1. Federal Government block grant of not less than 2% of its consolidated Revenue fund.
2. Fund contributions in form of federal guaranteed credit, and
3. Local and international donor grants.

No system can function effectively without financial support, no matter how noble its objective. Related to the issue of adequate funding is the issue of efficient management of funds(Egbo,2005). Misappropriation of funds and massive over expenditure were identified as problems which led to the failure of previous agencies in managing Primary Education. UBEC is therefore expected to ensure financial discipline.

Again is the issue of political influence. In this country, political interest and sentiments have always taken precedence over all professional consideration. Some politicians elected into offices have no goal to achieve other than to recover the money they spent in their election into the office. Yanusa and Abubakar (2003) observed that many of the laudable educational programme such as UBE are unfortunately sidelined due to inconsistency in government policies. For instance, UPE started in 1976 but completely stopped when a new civilian government took over. Also Maduewesi,(2005) heightened that the issue surrounding the implementation of UBE some 25 years ago, under the name Universal Primary Education (UPE) are still very much alive today. Again Adepulu and Fabiyi, (2007), also established that the UBE programme was being politicized. When education is politicized , then quality is eroded. A study by Chiambo, Kunje and Chimuzu (2004) has demonstrated that it is easier to achieve reforms which secure increased assess to schooling than that which enhances robust improvements in schooling quality.

The three components of UBE scheme which are handled by UBEC makes the UBE scheme cumbersome to handle under one agency. It is to handle nomadic education and adult and non formal education. This is untidy and some of these responsibilities appear to hinder the effectiveness of the scheme. Recently it has been saddled with the Teachers scheme adding more load to an already overloaded wagon.

The welfare of the teachers is not being given the desired attentions. There is no motivation, no regular workshops, no re-training of teachers etc who will implement the programme.

The act which stipulates punitive measures for parents who withdraw children from school appears to be on paper. The act is not being well enforced.

Emergence of Basic Science in the Implementation of UBE Programme

In response to the Millennium Development Goals (MDGS) and the Education for All (EFA) by the year 2015 together with the need to meet the critical target of the National, Economic, Empowerment and Development Strategies (NEEDS) summarized as follows:

- ❖ Value re-orientation
- ❖ Poverty eradication
- ❖ Job creation
- ❖ Wealth generation and
- ❖ Using education to empower the people

The Nigerian Government came out with a new reform that has recently been spelt out. The new reform is the 9-year basic education. The adoption of the 9-year continuous basic education from 2006 implies that the offering of STEM should be systematically developed in such a manner that there should not be a disjoint between what is taught at the primary and junior secondary level. This has been achieved through the introduction of Basic Science and Basic Technology and the scrapping of primary science at the lower and middle basic level and the replacement of Integrated Science with Basic Science at the upper basic level of the basic education among others.

The basic science curriculum which is in use in Nigeria for science teaching and learning in the junior secondary school had built-in strategies where the learners are required to be involved in inquiry and related activities that can develop critical thinking skills. This is seen in the objective of basic science curriculum (NERDC,2007) which include to enable the students to:

- ❖ Develop interest in science and technology

- ❖ Acquire basic technology and skills in science and technology
- ❖ Apply their scientific and technological knowledge and skill to meet societal needs
- ❖ Take advantage of numerous carriers opportunity offered by science and technology
- ❖ Become prepared for further studies in science and technology.

The UBE principal objectives which includes:

- ❖ Developing in the entire citizenry a strong consciousness for education
- ❖ Free and compulsory education for every Nigerian child of school going age
- ❖ Eradicating illiteracy, ignorance, poverty, acquisition of appropriate level of numeracy, manipulative and communicative life skill as well as ethical-moral values needed for laying solid foundation for life- long learning.(UBE-Ngeria,2004),necessitated the introduction of some innovative issues in the school curriculum among which are the basic science at the upper basic stratum (JSS 1-3), which replaced Integrated Science.

The curriculum of the Basic is unique in several aspect. This therefore calls for the preparedness of STM teaches towards the reform in STM education through basic science teaching in junior secondary schools. Basic Science properly evolved from Integrated Science. Some relevant themes in Integrated science are still maintained in Basic Science curriculum. Integrated science is a science presented to the child such that the child gains the concept of the fundamental unity of science, the commonality of approach to problems of scientific nature and an understanding of the role and function of science in everyday life and the world in which they live (FRN,1984). Basic Science on the other hand is basic training in scientific skills required for human survival, sustainable development and societal transformation. Basic Science combines science and technology. The general goal of the curricular reform was to reflect depth, appropriateness and inter-relatedness of the curriculum contents. Emerging issues which covered valve orientation, peace and dialogue including human right education, family life, HIV/AIDS education, entrepreneurial skills etc were infused into the 9-year Basic Education curricula. Additionally the curricula planners agreed that major issues shaping national and global development such as globalization, information/communication technology were the rhetoric of Basic Education curricula. Hence the following themes were infused into Integrated Science to form Basic Science curriculum. They as follows:

Environmental Education
Drug Abuse Education

Population and Family Life Education

Sexually Transmitted Infection(STI) including HIV/AIDS (FRN,2006).

Basic Science curriculum contents are arranged in particular order of thematic and spiral pattern. Thematic arrangement means that the contents, principles, facts, concepts are organized in themes that is, broad themes and sub-themes taking into account the learners needs, interest and overall societal problems and demands in the present age of science and globalization. While the spiral and concentric arrangement refers to the organization and sequencing of content in the most meaningful order so as to re-occur at different levels of education in primary, secondary and even tertiary level of education (Law,2004 in Ibe 2011). Basic Science teaching and learning had built-in strategies where the learners are required to be involved in inquiry and related activities that can develop critical thinking skills. The broad-base or broad field curriculum promotes relationship between different identified areas of knowledge of separate subject-centered curriculum. The broad base enables the learner acquire a comprehensive knowledge base to face the problem of living and personal advancement in future.

Challenges to the Implementation of Basic Science Curriculum in Nigeria

The basic science curriculum was introduced in response to the reform in education sector, that is the introduction of 9-year continuous basic education. Unfortunately, there are so many challenges facing the implementation of this curriculum and some of these challenges are as follows:

- i. The teacher factor
- ii. Inadequate funding of the programme
- iii. Inadequate classroom block
- iv. Inadequate instructional materials
- v. Inadequate provision of furniture
- vi. Ill equipped library
- vii. Ill equipped laboratories
- viii. Poor method of teaching.

The Teacher Factor: the six months training given to the UBE teachers at the take-off of this programme can never be useful in equipping the teachers with the necessary competence, knowledge, and skills needed to meet up with the goals and objectives of this curriculum. Most of the teachers teaching the basic science are single science specialist and are completely ill equipped to handle this new curriculum in any way. In other words, the teachers who are implementers of the curriculum are not trained for the programme. Again is the issue of inadequate

number of teachers. In most schools, teachers teaching this basic science are completely inadequate in number. A situation where only two teachers may be teaching basic science from JS1-3, which may have up to 10 streams per level does not augur well. In this type of situation, the aim of the programme has been defeated.

Inadequate Funding: The Success of the entire programme largely depends on funding . With the present inadequate provision of funds, the implementation of the curriculum is just like chasing mirage. There is no meaningful strategy for generating enough funds to ensure that facilities needed for the workability of the curriculum are supplied in significant quantity.

Inadequate classroom block: No meaningful learning takes place in an overcrowded classroom. That is why Oyesola,(2000)said that the provision of classroom block plays a major role in the achievement of the set education goals. Science is activity oriented. What type of activity is expected to take place in a class of 70-80 students. So the fact remains that curriculum is never implemented at the classroom level but on paper.

Inadequate Instructional Materials: For successful science teaching, a science teacher requires instructional aids to illustrate, emphasize and explain his lesson for easy comprehension and possible application to real life situation. Some of these materials include, chalk, chalk board, models, charts, teacher's guild, self-learning modules etc are grossly inadequate in schools. In many schools the teacher finds it difficult to get chalk to write on the board. UNESCO (2000), states that instructional materials are very important in the actualization of the curriculum. So lack or inadequate provision of the instructional materials poses great threat to the implementation of the basic science curriculum.

Inadequate Provision of Furniture: Furniture such as tables, desk, chairs, lockers, cupboards etc. are either lacking or grossly inadequate in our schools. They are very necessary in every school system if the target of the curriculum would be actualized as they enhance effective teaching and learning.

Ill-Equipped library: the provision of library services is very essential at any level of education, now that we have information boom and also to enhance the spirit of inquiry among students. It is therefore of great importance that library services should be provided for the UBE programme to enable the children to have access to learning materials and information that facilitates their learning process. But unfortunately, you find out that in most secondary schools, library exists only in name with outdated books and no modern library facilities exist. Where library exists

at all, no one supervises to ensure that the children use the library effectively as to inculcate the habit of reading in the students.

Ill-equipped laboratories: both the basic science laboratory and the computer laboratory where they exist at all are completely ill-equipped. Most equipment/materials needed for practical work are not available in schools. In a research carried out by Eya and Elechi(2011), they reported that most equipment necessary for meaningful practical work on basic science are not available and where they are available, most basic science teachers do not know how to use them. In other words, they are underutilized. Again most schools do not have computer laboratories and where they exist the computer facilities are not adequate. There are no computer networks and internet services. This challenge also hinders the achievements of basic science goals and objectives.

Poor Method of Instruction: literatures shows that process-oriented activities are not usually carried out in science class rooms in Nigeria. Obioha and Bomide(1986), in Shaibu and Mari(1999) reported that pupils are seldom confronted with first-hand concrete experience which could allow them perceive relationship, predict events and draw conclusion. The basic science curriculum specifies hands on process and skill acquisition.

Most basic science teachers use the conventional method of teaching which have been found to be deficient in enhancing learning and achieving the objectives of basic science curriculum. Basic science is the basic training in scientific skills required for human survival, sustainable development and societal transformation. Inquiry method is hardly used in teaching. Teachers rely mainly on lecture method of teaching due to lack of adequate equipment and materials for practical work and also as a result of the fact that most teachers do not know how to use the available equipment/materials for practical work. This is a very big challenge facing the implementation of basic science curriculum where students are required to enquire, invent, predict and control events

Way Forward.

In order to move forward, Science, Technology and Mathematics (STM) teachers should be given opportunity for in-service training to improve upon their profession expertise and also use the acquired teaching methods and activities to teach learners how to do science instead of reading science. This is because, no education system can rise above the quality of its teachers. The STM teachers are regarded as the most vital resource in the education industry. STM teachers should be sponsored to seminars, workshops and conferences to be abreast with modern technology.

The science laboratories should be adequately equipped to enhance learner-centered activities which involve the acquisition of scientific, technological and entrepreneurial skills.

The inquiry/discovery method should be re-emphasized so as to expose students on how to manipulate equipment for the acquisition of entrepreneurial skills. There should be regular supervision of these teachers to make sure that they comply to the use of innovative methods of teaching.

Library facilities should be provided in schools so as to help cultivate the habit of reading among students. There should be regular supervision of these students to ensure that these students use the library effectively well to facilitate their learning process and curb some social vices like examination malpractice, cultism etc.

There should be strategies for generating enough funds to ensure that facilities like instructional materials, furniture, enough classroom blocks and other vital facilities needed for the workability of the UBE programme are supplied in significant amount. This could be done by involving all the stakeholders in education such as non-governmental organization (NGO's), community group and parents in supporting the education system. This is because the success of the entire programme largely depends on funding. If adequate funds are not provided, it could be just like chasing a mirage.

Conclusion

For the UBE programme to achieve its goals and contribute to nation building, progress and transformation of the education system, there is need for careful consideration of the process of providing means of sustaining it, in terms of provision of resources both human and materials. The spirit of creativity should be cultivated in the students through the exploration of the environment. Teachers should be taught how to improvise using cheap local materials. This should inculcate the desire to explore the environment in the students thereby helping themselves and contribute to the development of their nation.

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