



Strategies for improving Funding of Science Education Programme in Secondary Schools for Sustainable Development in Abakaliki Education Zone.

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Abstract

This paper focused on the strategies for the improving funding of science education programme in secondary schools for sustainable development. It also emphasized on the strategies for the improving of funding of science education to include contribution from old school boys, payment of PTA levies by the parent, contribution from school host communities among others. The paper also highlighted on the challenges of funding education. That challenges in funding of education could be traced to policy and strategy instability, consistency, inefficient management among others. The paper recommended that government at all level should pay high attention to the education sector for its sustainability. The P.T.A levies should be regularly paid to enable schools provides necessary/minor educational facilities and instructional material for the pupils among other.

Keywords: Secondary School, Science Education programme, Funding strategies, Sustainable Development

Introduction

Education is the veritable tool for national development which is used to achieve political, economic, social, and scientific development in all fields of human endeavor. Education is a means through which a nation trains their citizens to live as useful and acceptable members of the society. Udo, (2016) opined that Education is all round symbol for national development and transformation in the aspect of economic, social and the political activities of any nation. Udo (2016) also sees education as a potent instrument for tackling the twin plague of literacy and poverty. Ushie and Agbo (2007) on their own sees education as the tool to foster the frontier of knowledge, formulate ideas for national development, train and develop manpower to man various

institutions in the society and to inculcate national values, morals and character necessary for national unity and development.

In education, there are various programs that help in the development of a nation; they include science education, vocational education, and technical education among others. Since this paper focused on the strategies of improving the funding of science education program in Ebonyi State, the presenter concentrated on the science education program. Science education plays significant roles in the development nation economy. Science education comprised of Biology, chemistry, physics among others. Science Education is specifically developed to train scientist with skills and knowledge needed for prosperity and national development. Knowledge acquired from science are used in medical profession to prevent and cure for diseases, in construction industries, it is used for roads, bridges, houses, factories among others. Science according to Onah, (2003) is the bedrock upon which any nation can be built. This means no country can be recognized globally without talking about its scientific advancement. Mbajiorgu (2003) on the other hand view Science as an act of doing and is more concerned with the various investigative processes and activities with regards to developing, acquiring and controlling knowledge, skills, capacity and attitude about the natural factors of the environment. This implies that science is way of doing and knowing the fact. Following the key subjects that made up of science, they have different significant roles in development of the economy. Some of their roles are detailed as follows; the knowledge of biology contributes immensely to the field of medicine, Agriculture, pharmacist, medical laboratory, nursing, Anatomy, histology, physiology among other, taking care of our body, full knowledge of environment that we live in. In the part of chemistry, the knowledge of chemistry helps in the area of health care and beauty, industry and transportation, food security and Agriculture, science and technology among others. In the aspect of physics, the knowledge of helps us in the area of our health maintenance, provision of energy, communication, transporting people and goods, developing consumer electronics, constructing bridges, roads and houses among others. In support to the writer's view, Odaibo, Gbenro, Ala, Olaniran and Chukwuka (2013) said that science is very useful to the nation and in mankind following areas; food production, medicine, crop improvement, manufacturing industry, space technology, Animal husbandry, Engineering, food processing and storing, control of pollution, transportation, communication and problem solving and research. It was based on the important nature of science that Osuafor and Okafor, (2013) said that no nation can neglect science education at any level of its educational system and hope to thrive in any human endeavor. They also that science education is significantly useful in man's daily struggles to control his environment and build a strong world. Egbenonu and Ugbaja (2011) in his contribution opined that science education is essential for useful meaning in any society. They also said that science education plays vital roles in the area of health, area of technology, construction, engineering, and building among other areas. It is in line to the important nature of education and science education in particular that federal republic of Nigeria adopted education as instrument par excellence for affecting development (Ajeyelemi, 2009). It also as a result of the premium placed on education and in sciences that made federal government of Nigeria in 1969 to organize first ever national curriculum conference in education at Lagos (Ikpeze, 2010).

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The outcomes and resolutions of that conference gave rise to the national policy on education which was first established in 1977 and has been revised in 1981, 1986, 2004 and 2008 respectively which involve huge fund (Nwachukwu, 2014). Since the implementation in 1981 there have been a lot of innovation and reform in the educational system to include changing of colonial system of education from 6-5-2-3 to 6-3-3-4, scientific and technological development, introduction of NEED assessment scheme, taken over of all the voluntary and missionary schools, employment of science and Arts teachers in both primary and secondary schools among others (Umar,2008). Nwagu (2011) stressed that education in Nigeria despite these reforms and the continuous huge investment by various government regimes has not sufficiently lifted the nation from the morass of technological, under-development, political instability and social decadence. He also stressed that most of these reforms and innovations are poorly implemented due to lack of funding.

Since education and science education in particular are very vital in nation building it is important that science education at any level be considered as the number one priority. Though the full implementation of this program is faced with serious challenge such as poor funding, due to funding is the chief driver to any progress,

Therefore, for effective national development and educational sustainability, there is need for other funding strategies in the education sector due to government does not allocate adequate funds to the education sector and even if they do, the mode of implementation become another obstacle due to some agents may embezzle the funds made available for education sector. Take for instance, the allocation chart of federal government of Nigeria for 2017 as reported by Daily sun newspaper, 18, August, 2017 pointed out on the low allocation of Nigeria budget to Education ministry and federal ministry of science and technology of 23, 853, 337, 717 and 369, 556, 376, 895 respectively (16% and 11.3%). This implies that Nigerian Education sector has received less than 26% allocation as advocated by United Nation Education, scientific and cultural organization UNESCO, 2002. UNESCO, (2002) recommended that every nation in the world should allocates at least 26% of its annual budget to her education sector. Nwachukwu (2014) also noted that financing education is at the heart of educational crisis in many countries of the world including Nigeria. He also pointed out that in Nigeria, financing education appears to be a perennial crisis and that continue to create setback in the development of our nation. Meanwhile the overall vision in the current government aims at making Nigeria, one of the top twenty economies in the world by the year 2020 unfortunately recession befall on Nigeria for more than two years. It is obvious that any country that wants to be reckoned with the global area must be outstandingly advance in education.

In Ebonyi state, funding of education has become an annual crisis to the extent that some of the schools (science and technical schools) have been handed over back to missionaries for them to maintain the school to meet up with other standard of secondary education in the country which their number are very few. This is as result of poor funding by the state government; schools managed by government lacks facilities and instructional materials, lack science equipment, cannot pay teachers their minimum wages and remunerations and this negatively affects academic

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performances of the learners and discourages teachers dedication to their duties. Nada (2008) also observed that the status of competency in secondary school science education in Nigeria appear very low. This may be as a result of government failure to give supports to science teachers to undergo training. Nada (2008) went further to report that the majority of teachers who are already in the system seem to lack initiatives and skills that are imperative to move science education standard forward to meet the global education challenges. In support of Nada assertion, Modebelu, (2007) indicated that the majority of these teachers who lacked competence were as a result of inadequate remuneration and substantial professional development. The questions become what are the strategies that can improve funding of science education at secondary school in Ebonyi state? It is based on this that the researcher therefore states the following as other strategies apart from government budgetary allocation as way of improving the funding of education and science education in particular in Ebonyi State, School host communities, Old school boys' Association, international communities, Parent Teachers Association, politicians, wealthy individuals and philanthropist among others. The researcher noted that if the following mentioned bodies and individual in addition to the government allocation budget contributes in the education sector, the education sector will immensely yield efficient outcome and the light in education sector continue to shine.

The question now is how these strategies improve funding of education in the state:

Old school boys' association: old school boys association serves as a strategy by donating fund to the school through free will, providing instructional materials like chalk and exercise books to the school, donation of computers, drill boreholes, construct new houses and renovate dilapidated classrooms among others. The typical example of this that I know is the assistance from professor (Mrs) Adaeze Nwuzor, (2017) who renovated one dilapidated classroom at Ebia Unuhu community Primary School, in Abakaliki Local Government Area of Ebonyi. The time she was flagging of the project in the school on the 29th December, 2017 during the Ebia Unuphu student Union Day, she said this was her classroom, where she did her primary school education.

Wealthy philanthropist: Wealthy philanthropic individuals in the communities, states, should provide regular financial and materials assistance for sustainable educational development. In Onicha Local government Area of Ebonyi, a wealthy philanthropist, Orient Global Resource Limited provided 5000 textbooks and other learning materials to public secondary schools in Ebonyi South senatorial Zone of Ebonyi State and 1000 to other schools in the state, (EBBC, RETROSPECTION, 24th February, 2018). With this contribution made by this wealthy philanthropist, it had served some certain academic problem within the area, not only that it is also the responsibility of the government and parents to provide textbooks to their children at any level of education.

International community's: Regular financial support for Nigerian's education should come from international bodies as the World Bank, UNESCO, UNICEF, UNDP, and UNFPA, USAID, ETF and other financial assistance through bilateral agreement between Nigeria and other countries. In November, 2016, Sustainable Development Goal (SDG) in conjunction with FME, NTI and

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USAID organized one week workshop program for primary school teachers in the entire senatorial zones of Ebonyi State. At the end of the workshop, teachers and facilitators were paid. This was possible because there was collaboration between some other financial assisted bodies with Government. International organization such as UNESCO donates laboratory and library material and provides grants to schools, UNICEF organizes workshops, seminars and conferences to both primary and secondary teachers, these things highly involved funds which if government alone is the only agent that provides it, education sector would have been thing of the past.

Regular contributions from school host communities and PTA: Levies on all adult to support schools, local government official, churches, and school authorities should be involved in the launching of appeals for funds (Nwachukwu, 2014). Host community should ensure that they provide accommodation for staff, provide security for the schools, motivate teachers in their school by adding some stipends to their salary among others, because if all these mentioned are provided for teachers it will go a long way in ensuring that available fund budgeted by government are properly utilized for what it meant for and that will motivate teachers to be dedicated to their duties. Launching of appeal funds, regular payment of parent - teachers association are some of strategies that can improve funding of education. Example of this is found in my village where parents and wealthy peoples built three building with three classrooms per one and was handed over to the state ministry of education, after which state government took over the management of the schools, before the handover of the school, the villagers employed auxiliary teachers. The villagers also ensure that the salaries of the auxiliary teachers are paid regularly. This was done to ensure sustainability of education in the area.

The challenges of funding education in Nigeria

The challenges of Nigeria education sector in general and its funding in particular could be traced to policy and strategy instability and inconsistency, inefficient management, wastages and leakages there by overriding macroeconomic conditions that have determined the fate of the sector and why the economy is not growing at a reasonable high and sustainable rate, it will not have the resources to fund a largely – social service sector such as education in Nigeria with a high population growth rate, lackluster growth rate of the GDP would imply severe resource constraints, which could lead to the poor resourcing of social sector such as education, as could be seen in the Nigerian budget since 1970 – 2017, the country recorded either negative GDP growth rates or low positive growth rates. It should not be surprising therefore, that education has been poorly funded over the period. Evidences have shown that the Government depends heavily on oil for an average of about **80%** of its total revenue, while non-oil (agriculture, solid minerals and other resources) revenue contributes much less-an average of about **20%** not until recession befall on Nigeria for about two years ago that Nigeria have decided to divert little from oil to other available resources like agriculture and solid minerals, Debie cited in (Nwachukwu, 2014). An examination of the records shows that the Nigerian Government has tended to embark on ambitious education programs in spontaneous response to oil booms. In 1973-1979 Nigeria experienced the first oil

boom as a result of the Arab oil embargo against the U.S.A. In 1990, there was a second oil boom because of the Gulf war and the United Nations trade embargo on Iraq and Kuwait. A third oil boom started from 2003 fuelled mainly by galloping economic growth and attendant high energy demand in several emerging economies, spectacularly, China. It was in response to the windfall revenues resulting from the 1973-1979 oil booms that the Nigerian Government in 1976 introduced the Universal Primary Education. This laudable program caused a dramatic expansion in the demand for educational services at the primary level. But the financial resources became inadequate, particularly following the collapse of oil prices.

Ways through which education can be sustained:

- **Adequate provision of infrastructural facilities:** Educational facilities are those materials in school that facilitates teaching and learning in order to achieve academic objectives. Educational facilities include classrooms, laboratories, books, typewriters, computers, laboratory equipment, offices among others. To ensure sustainability in education facilities should be adequately provided to ensure effective implementations of the curriculum. School buildings are tangible structures which serve as shelter for educational activities. They include classroom, laboratories, (physics, chemistry, biology, agricultural science, geography and languages, local crafts and home economics), teachers common room/offices, toilets, rest room, reading rooms, dispensaries libraries, hostels, dormitories, dining halls (if it boarding schools) assembly halls, staff quarters, sanitary boxes among others.
- **Funding of school:** Funding of education have been a very serious problem between government leaders and its staff hence failure to provide enough fund to cover the area of needs like employing of qualified teachers, procuring of textbooks, improving on existing infrastructure, procuring of equipment, instrument teachings aids, paying of staff, organizing of workshop, conferences and seminar to teachers will affect the sustainability of education in Nigeria schools.
- **Security:** Securing of facilities and school building is one of the vital ways of sustaining education system. A situation whereby available school facilities and building are not properly secured, the sustainability of education is granted.
- **Qualified personnel should be employed to ensure sustainability in the education sector;** This is because teachers are the key to the implementation of curriculum in all level of education. For any programme to be properly implemented, the implementer must be professionally qualified. In support to this idea, Ali and Ajibola (2015) said that in Nigeria, it unheard of that most secondary schools do not have adequate qualified teaching personnel, he further said that in most cases, teachers are compelled to teach subject that are not their area of specialization. Therefore, to ensure sustainability, qualified personnels should be employed to ensure that the life wire in education is maintained.

Involvement of teachers in decision making and curriculum planning--: for stated objectives in education to be attained, teachers must be involved in decision making and curriculum planning.

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In support to this assertion, Obinna, (2007) observed that in most cases teachers are deliberately neglected when major decisions in education and matters concerning the teacher's welfare are taken. Ugwu (2005) affirmed that relevance of curriculum is determined only when it is completed, in other words, the relevance of any curriculum depends on the extent to which the classroom teacher is able to interpret and implement the curriculum. Therefore, the involvement of teachers in decision making will help in sustaining education.

Conclusion

The researcher concluded that Nigeria education sector and its funding problem in particular was attributed to policy and strategy instability and inconsistency, inefficient management, wastages and leakages, and over dependence on oil revenue as a source of funding of education in Nigeria. The presenter also opined that if old school association, parent - teachers association, school host communities, wealthy philanthropist and international organizations contribute to all schools in Nigeria and Ebonyi State in Particular, education sectors will sustain its standard in all programs. This is because, depending on government alone, the crisis in education sector cannot be resolved and will contribute to poor academic performances among the students.

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