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Inadequate Infrastructural Distribution in Public Primary Schools in Delta State: Implication for National Development

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ABSTRACT

This paper examines the challenges of the distribution of infrastructural facilities in public primary schools in Delta State. It addresses the concept of school infrastructural facilities in promoting teaching and learning for quality improvement in public primary schools education. Most primary schools in the state have suffered greatly from the unequal distribution of these facilities. This has also created enormous challenges for teachers and learners in the Delta State. The paper further identified challenges facing infrastructural distribution and their relationship with national development. It recommends an even distribution of educational facilities in all the government primary schools to ensure equitable development and growth. We hope that an even distribution of these facilities in public primary schools will result in national growth and development.

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INTRODUCTION

Basic Education is a foundation of development in every nation. Education enables people to discern and identify the existential challenges confronting them and provides them with requisite information on how to handle the challenges. As a nation, who belongs to the United Nations organization, we are expected to key into the sustainable Development Goals (SDGs) especially Goal number 7 centres on Education for Sustainable Development and Global Citizenship. According to the projection of this Goal, by 2030, we are to ensure that all students gain the knowledge and skills required to promote sustainable development including true education and sustainable lifestyles. The means of implementing the goal includes an effective learning environment, by building and upgrading educational facilities that are safe, child, adequate and gender-sensitive

and provides safe non-violent inclusive and effective learning environment for all. This target addresses the need for adequate physical infrastructure, safe, inclusive environment that nurtures learning for all regardless of background or disability status.

The roles οf educational infrastructure in the educational system cannot be overemphasized. Learning and teaching are meant to take place in a given place or environment and for effective teaching and learning to yield result, there be educational infrastructure provided to aid education. Such educational infrastructures should engender harmonious development of pupils. Education is one of the fundamental human rights of every child and schools are the platforms for the actualization of this right. A school can facilitate this right only when adequate and relevant infrastructures are JOURNAL OF SCIENCE TECHNOLOGY AND EDUCATION 8(4), DECEMBER, 2020 ISSN: 2277-0011; Journal homepage: www.atbuftejoste.com

provided such as classrooms, libraries, laboratories, toilet facilities, sporting facilities, teaching aids, furniture and until recently Information Communication Technology (ICT).

Thus, in recent years, the educational system in Delta State has witnessed tremendous growth especially, in student enrollment. According to Okowa (2017), there are 1,021 primary and secondary schools in Delta State with 443,813 pupils and 332,760 students situation respectively. This requires adequate provision, use and maintenance of appropriate schools buildings and facilities to ensure an effective teaching and learning situation.

The quality of education given by any institution can be attributed to the provision of adequate educational facilities which include a well-planned and purposeful school building. In order words, students' performance is affected by the infrastructure. This is exemplified by a study carried out 2004 in selected schools in Alimosho Local Government Area of the State.

The result showed that students in the controlled classroom situation with adequate teaching facilities and conducive environment performed better than students who learned where teaching facilities were inadequate (Anumnu and Oyetubo 2004).

However, despite the heavy investment by the Delta State government, the process still encounters a lot of problems. Some of these facilities are mainly concentrated in the urban schools while those in the rural areas are left with few and in some cases, no facility at all. This paper therefore shall consider some of the challenges of infrastructural distribution and recommends how effective and even distribution can be achieved for the overall development of pupils.

THE CONCEPT OF EDUCATIONAL INFRASTRUCTURE

Education does not exist in an empty environment but in an environment structured of physical facilities and material resources that are to promote teaching and learning. According to Peretomode (1995) defined educational facilities also called school plant as the "things of education". These include school building, classrooms, assembly halls, laboratories and workshops, libraries, teaching aids and devices such as modern educational hardware and their software in the forms of magnetic tapes films and transparencies.

Furthermore, Ogbodo (1996)quoted by Osahon (2001) defined educational facilities are those material things that facilitate teaching and learning processes in the school. Educational infrastructure, according to Gometi (2010) quoted by Turupere (2016) is a collective word for all the physical structures and equipment required for imparting and receiving knowledge. He states that educational infrastructure also refers to as school facilities include buildings. accommodation. furniture. libraries. laboratories and recreational materials. He also believes that the provision of sufficient educational infrastructure will enhance effective learning and teaching. Turupere (2016) corroborates the assertion made by Gometi by postulating that where educational facilities are absent or inadequate, it will be difficult for pupils to maintain a high level of academic performance.

Educational infrastructure is an allembracing word for all the facilities that are provided in any educational institutions to aiding effective teaching and learning. This infrastructure among others include classrooms, staff offices, library, laboratory, sporting facilities. health facilities. Information Communication and



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Technology, furniture, power supply, security, hostel facilities, automobile etc.

Babalola and Ayeni (2009) cited Oyebade (2009) assert that school facilities consist of the following:

- Building comprising of classrooms, offices, workshop, market complexes, recreational facilities, laboratories, libraries, the sickbay and the sports complex.
- Land on which buildings are erected.
- 3. Equipment installed in these buildings to enhance functions.
- 4. Machines, vehicles, furniture.
- 5. Consumables and recycled materials.

According to Asiabaka, (2008) Infrastructural facilities are materials designed to serve specific purposes. In the school system, there is a multiplicity of infrastructural facilities, which facilitate teaching and learning for the high quality of education, particularly in public primary schools. They are used, first to illustrate concepts, second to provide an opportunity for information/experience, third is for experimentation and demonstration, the fourth is for scientific investigation and discovery, the fifth is to provide a diversity of thoughts, sixth is for observation and inquiry, seventh is for development of scientific attitudes and skills, eighth to protect the individual and also provide comfort. Also, Ejiro (2011) opines that facilities are also required to build affection, values, commitment and positive emotions in learning.

School infrastructures are called school facilities and these material resources are provided for staff and pupils for effective teaching processes through discovery, explorations and interaction with internal and external environments (Anero, 2013 and Moja, 2000).

In the same vein, (Asiyai, 2012) discovered that inadequacy, deterioration and lack of proper maintenance of school infrastructures spell doom for teachers and pupils because they constitute health hazards to teachers and pupils and make teaching difficult. School supervisors should ensure proper monitoring and utilization of primary school infrastructure.

AN OVERVIEW OF INFRASTRUCTURAL DISTRIBUTION IN PUBLIC PRIMARY SCHOOL

Education can accelerate economic growth, and investment is a key indicator to expand and improve the quality of education at all levels. Thus, Nigerian education requires more investment in infrastructural development which can lead to good quality education. Owing to the Compulsory, Free and Universal Basic Education being implemented in the country, the school-growing population has increased tremendously. This calls for a strong educational infrastructural development to keep pace with the developing economy and provide it with needed quality manpower. Asiyai (2012) asserted that the environment in public schools in Nigeria has continued to grow without a significant increase in facilities for successful teaching and learning. The intention to have a standard primary education system in Nigeria through its national policy has failed a series of attempts. This effect could be as a result of the frequent change in government administration or financial crises affecting proper maintenance of existing facilities and building of new infrastructure which affects the implementation of the National Policy on Education (Onyukwu, 2011)

Many schools lack the essential infrastructure to enable them to function properly and effectively. The majority of the schools, whether rural or urban, has no potable water, lack proper sanitation and



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has no electricity supply. The physical state of the classrooms is very poor with floors full of holes, broken roofs and ceilings. Windows and doors are not lockable where they exist. These schools lack security. In some circumstances, pieces of furniture are stolen and classrooms used as toilets. The possibility is that the child's attitude towards schools may affect his behaviour concerning attendance.

With the establishment of 48 extra public schools in 2015 to date, Delta state currently has a total of 1,126 public primary schools one of the highest in the country. According to the Delta State Ministry of Information (2020) between 2015 and 2019, the following interventions were made; construction of 1,251 classrooms, renovation of 2,225 classrooms, the supply of 115,102 students' furniture, the supply of 18,131 teachers' furniture and the construction of 39 administrative blocks. Others include the renovation of 27 administrative blocks, construction of 12 science laboratory blocks, renovation of 64 science laboratory blocks, construction of 29 block wall fences and the renovation of 18 block wall fences.

Despite all efforts made by Delta State Government to enhance the educational quality of the primary level through increased provision infrastructural facilities, the problems of quality education continued to persist. O'Niel & Edremoda (2020) highlighted that the sight of the learning condition in some Delta State's primary and secondary schools would break the most hardened heart. According to them, in some of the primary schools in Delta Central Senatorial district, there are no basic facilities or furniture: less than 40 desks and chairs are available to over 300 pupils, making the bare floor the only options for children who are desperate to learn. The genesis of the inadequacy of school facilities in some states in Nigeria like Delta state could be attributed to the

following factors: (Adeyanju, & Oyetubo, 2012; Ukah, 2019, Asiyai, 2012)

- 1. Changes in curriculum
- 2. Poor budgetary allocation to education
- Large number of public school and the various other competing demands in the social sector of the economy.
- 4. Poor or lack of maintenance of available facilities.

The overall importance of infrastructure support to Delta state economic development cannot be overemphasized. The quality of primary could education be improved bv constructing more schools to ease classrooms congestion and ensuring there are adequate school inputs such as infrastructure, number of teachers and classrooms. Children need adequate and relevant textbooks and sports facilities to improve their cognitive, affective and psychomotor abilities and this can increase their academic performance (Rafindadi, 2016). It should be noted, however, that Delta State Government is making effort at providing some facilities and Support Programme which include the rehabilitation of school construction of classroom blocks and provision of furniture. However, a lot still needs to be done in the capacity building, teaching and learning and school management.

The present state of educational infrastructural facilities in the public primary schools in Delta State requires more commitment on the part of the government. The classroom in most urban schools are now wearing a new look but those in the rural areas are still marking time till they will be remembered by the government. Besides the availability of classrooms and staff offices in the schools in



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the big towns, many of those schools are yet to have other facilities such as functional library and laboratories, sporting facilities and information and communication technology. The researcher hopes that with consistent effort towards the funding of education, the primary schools in Delta State will meet up with the global standard.

CHALLENGES FACING INFRASTRUCTURAL DISTRIBUTION IN PUBLIC PRIMARY SCHOOLS IN DELTA STATE

Education is a human right. Schools are the platforms for which this right is enhanced. A school is capable of facilitating this right when adequate infrastructures like libraries, classrooms, dining halls, laboratories and other teaching and learning materials.

In Delta state public primary schools especially schools in rural areas are bedevilled with infrastructural challenges — a challenge that keeps making it difficult for the academic success of those who happen to attend these schools. As much as the government over the years has been making some reforms in the educational sector, there are still schools especially in the rural areas where pupils and students learn under the trees or the dilapidated classrooms.

The impact of inadequate infrastructural distribution in public primary school have dire consequences on the safety and intellect of the pupils, for instance, school buildings collapse and fall on pupils resulting in deaths and injuries, the abrupt end of class hours as a result of rains. Hence it becomes difficult to achieve Sustainable Development Goal number 4 which states to ensure inclusive and equitable, quality education and promote life-long learning opportunities for all and its target 4(a) states that "to build and upgrade education facilities that are child, disability and gender sensitive and provide

a safe, non – violent, inclusive and effective learning environment for all.

Furthermore, the funding of education is defined by the quantity and quality of educational infrastructure present in all the institutions of learning. There has been a deficiency in the provision of educational facilities over time. As a result of this, the Ministry of Education is compelled to ration the few facilities government can provide. In doing this, preference is given to the urban schools at the expense of the ones in rural areas. This phenomenon has given rise to many problems as enunciated below:

- 1. Inadequate provision of educational infrastructure resulted in the migration of pupils from one place to another in search of quality education. Due to lack of facilities in rural schools many students trek between two and five kilometres every school day. This migration has led to overpopulation and overcrowding of urban schools while the rural schools continue lose population.
- 2. Another problem is the uneven distribution of facilities produced is teacher unwillingness to accept posting to rural schools especially the riverine areas. Due to the absence of basic educational infrastructure in schools especially those in the villages, many teachers tend to out rightly reject posting to the localities. Those who temporary accept will sooner or later begin to seek re-deployment to urban schools. Consequently, schools though urban overcrowded classrooms seem to have teachers in excess while the schools in the rural areas have few teachers. There are primary



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schools that have five or six teaching staffs only. Sometimes, only two or three staffs can be in school in a rotational style. A redistribution of the available infrastructure to the schools irrespective of location will result in having teachers willing to stay in any schools.

Furthermore, accountability has come to be a major challenge in education. The issue accountability should be viewed with more seriousness. It is believed to be the key to improving productivity and managing the rising cost which plagues schools today. If teachers, pupils and administrators are accountable, the question of maintaining school property will be taken more seriously.

EDUCATIONAL INFRASTRUCTURE AND NATIONAL DEVELOPMENT

There is a very clear link between educational infrastructure and national development. No nation in the world will develop beyond its level of education. That is, the more educated people are, the more developed they will be. However, the education that will bring transformation to a people must be both in quantity and quality. The quality of education in Nigeria today is on the high side but the quality is shallow. This is as a result of an infrastructural gap in almost all the levels of education.

School infrastructure is a powerful tool for both quantitative and qualitative education. For the administration of our primary schools to be effective, adequate educational infrastructures are needed. It is one of the most basic elements that guarantee access to qualitative education especially in rural areas. Due to inadequate facilities in most schools, there is

continuous overcrowding of classes thereby reducing the quality of education.

Qualitative education will certainly produce growth. However, the quality of primary education could be improved by constructing more schools to ease classrooms congestion and ensuring there are adequate school inputs such as infrastructure number of teachers and classrooms. Children need adequate and relevant textbooks and sports facilities to improve their cognitive affective and psychomotor abilities and this can increase their academic performance.

According to Okeke-Oti & Adeka (2012), the main purpose of teaching and learning process is to bring desirable changes in the learner's behaviour through critical thinking. This process takes place in a school environment structured with varieties of infrastructure such as all types of buildings for academic and non-academic activities, equipment for academic and nonacademic activities. Others include classrooms, furniture and toilet facilities. security, transportation, computer laboratories, libraries centres/(ICT), cleaning materials, food services, and special facilities for the physically challenged individuals as to facilitate effective learning and teaching, (Asiabaka, 2008). The result is equipping the individual with the right skills for national development.

There are many schools in Delta State where the pupils have no furniture to learn. Some of the pupils together with their teachers stay under the trees to learn. The environment of our schools is very hostile to learning. Galindo (2004), believes that learning must be equal to change. Within the learner, change takes place in three domains: a. Person's attitude (values), b. Knowledge and c. behaviour. Underlying this concept is the acknowledgement that where there is growth, there is change. It takes educated individuals to bring about

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national development. The rural areas will develop as long as rural education is globally standard. Thus, it will be possible for one to know what is happening in other countries as long as educational infrastructures are in place.

CONCLUSION

The reason for infrastructural balance in primary school education is hinged on the fact that there is a strong link between quality education and national development, Education can only be qualitative if the necessary infrastructure that is capable of aiding effective education is in place. It is the hope of the researcher that this paper especially the observations and recommendation made will contribute to the growth and development of primary school education in Delta State and Nigeria as a whole. To translate plans into reality, infrastructure must be planned and provided in form of classrooms, wellequipped workshops, laboratories and libraries. And efforts should be made to motivate the teachers and keep them in the system.

RECOMMENDATIONS

In line with the position taken by the paper concerning the impact of infrastructural distribution, the following recommendations where made:

- The school infrastructure must be functional. This is saying that they must satisfy the aspiration or the set objectives of the school. It must be capable of allowing varying and flexible instructional activities which are consistent with the implementation of the instructional programme.
- The school plant has to be of assistance to the students, staff and all other users. The school buildings and facilities have to help

- both in facilitating school programme and the needs of the community. Each component, that is, each building has to be built to serve some particular purpose and it has to be constructed in such a way that its use does not constitute a nuisance in others.
- Preference should be given to the rural schools in the distribution of infrastructural facilities education. Before now, the urban schools have continued to receive one infrastructure or the other while the schools in the rural communities wait endlessly. This has resulted in rural-urban migration by the youths and children, especially pupils. If the government will make a deliberate effort to change strategy by giving preference to the rural schools, they would have checkmated migration and teachers become willing to stay and teach confidently in rural schools.
- Engagement of old boys and girls of every primary school in Delta State will certainly help alleviating the poor state of infrastructural deficiency in a primary school in Delta State. Many universities and other educational bodies through their old boys and girls have contributed infrastructural greatly in development of their alma- mater. This pattern of partnership has been yielding dividends in our education system. This is a working strategy that if carefully crafted and pursued vigorously government, infrastructural deficiency in our primary schools will become a thing of the past.
- 5. Host communities should be involved in the management of our



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primary schools especially in the rural areas by providing security to the school. Many school buildings and other infrastructural facilities have become a hiding place for armed robbers and vandals. Many school buildings have vandalized because the host communities are yet to assume the responsibility of helping the government in the protection of educational facilities, especially in rural communities. This strategy is currently working in the power sector. We can recommend the same to the government of Delta State.

 The government should put in place a policy framework that will allow for even distribution of educational facilities in all the government primary schools to ensure sustainable development and national growth.

REFERENCES

- Abba, A. (2016). GIS-Based Analysis of Facilities in Public Primary Schools in FUNTUA Educational Zone, Katsina State, Nigeria, M.Sc., Thesis, Ahmadu Bello University, Zaria.
- Adeyanju, F. & Oyetubo, O. (2012).

 Infrastructural Resources Provision and Utilization for the Universal Basic Education Scheme (UBE) in Lagos State. Resources

 Management in Education and National Development. Benin City: Institute of Education, University of Benin
- Akpan. C. P. and Esirah, E. (2005). Strategies for Realistic Quality Assurance in Knowledge Generation in Tertiary Institutions in Nigeria. In N. Ezehand N. Onyegegbu (eds). Knowledge Generation and

Dissemination: Issues and Challenges in Nigerian Universities. Enugu: Pearls & Gold.

- Alimi, O.S. (2004). Appraisal of the Adequacy of Available School Plant for Primary Education in Ayedaade Local Government of Osun State. Educational Thought -1(1), 64 -69.
- Anero, N. (2013). Quality primary education and its 3-concept indicators among public schools in River State, Nigeria, Academic research international, 4(6) www.savap.org.kp, www.journals.savap.prg.kp
- Asiabaka, I. P. (2008). The need for effective facility management in schools in Nigeria. New York Science Journal, 1(2), 10-21
- Asiyai, R. I. (2012). Assessing School Facilities in Public Secondary Schools in Delta State, Nigeria. African Research Review International Multidisciplinary Journal 6 (2), 192-205
- Babalola J.B. & A. O. Ayeni (2009).

 Educational Management:
 Theories and Tasks.

 Macmillan Nigeria Publishers
 Limited.
- Barrett Peter, Alberto Treves, Tigran Shmis,
 Diego Ambasz and Maria Vitinova
 2019. The impact of School
 Infrastructure on Learning. A
 Synthesis of the Evidence,
 International Development in
 Focus. Washington, D. C. World
 Bank.
- Delta State Ministry of Information (2020).

 Okowa Efforts at Transformation of Education in Delta State. Asaba.

 Delta State Ministry of Education.

 Retrieved 27/2/2020 from

 https://www.information.deltastate.gov.ng
- Earthman, G.I. & Lemasters, L. (1996).

 Review of the Research, Student



JOURNAL OF SCIENCE TECHNOLOGY AND EDUCATION 8(4), DECEMBER, 2020 ISSN: 2277-0011; Journal homepage: www.atbufteioste.com

- Achievement and Student Behaviour. Paper presented at the Annual Meeting of the Council of Educational Faculty Planners International. Tarpon, Florida, October 1996.
- Ejionueme, L. K. (2007). Strategies for involving the Private Sector in the Management of Secondary Schools in Enugu State.
 University Trust Publisher
- Federal Republic of Nigeria (2014). *National Policy on Education*: 6th Edition.

 NERDC, Lagos
- International Workshop (2012). Educational Infrastructure, Guadalajara.
 Jailosen, Mexico.
- Moja, T. (2000). Nigeria education sector analysis: An analytical synthesis of performance and main issues World *Bank Report*.
- Okeke-Oti, B. A. & Adaka, T.
 (2012).Teachers quality for the
 effectiveness of children's primary
 school education in Nigeria. *Global*Voice of education, I(1), June
- Okowa, I. A. (2017). Delta Expenditure on Education Infrastructure 2018
 Budget delivered by the Delta State Governor at the Delta State House of Assembly, Asaba.
 Retrieved 19/10/2017 from https://www.vanguardngr.com/2017/10
- O'Neil, S. & Edremoda, E. (2020). Delta State Schools Where Children of the Poor Learn with Tears. Retrieved 18/2/2020 from https://thenationonlineng.net
- Onocha, C. O. (2013). Investing in
 Education: Emerging Challenges.
 The Second Annual Conference of
 the Delta State Branch of the
 National Association for
 Educational Administration and
 Planning (NAEP)

- Oyedeji, N. B. (2012). Educational Resources and the Universal Basic Education in Kwara State.
- Peretomode (1995). Introduction to
 Educational Administration
 Planning and Supervision. Joja
 Educational Research and
 Publishers Limited.
- Rafindadi, S. M. (2016). The Impact of Infrastructure on the Quality of Primary Education in Katsina Zone Katsina State, Nigeria. Approaches in International Journal of Research Development, 10(1). The Nigeria Voice, March 2, 2016.
- Turupere, K. (2016). The influence of School Physical Environment on Secondary Schools Students' Academic Performance in Bayelsa State. *Asian Journal of Educational Research* 4 (2) 104 -123.
- University of Nairobi Research Archive:
 Impact of school infrastructure on
 the provision of quality education
 in public secondary schools of
 Nyakah District, Kenya.
 http://www.caristasmile.org/the-importance-of-educational-infrastruture-forearly-education.
- Osahon, U.G. (2001). Facilities Management in Schools. Benin City: Mabogun Publishers
- Ejiro, T. A. (2011). Effect of Inadequate Infrastructural Facilities on Academic Performance of Students of Oredo Local Government Area of Edo State. *The Nigerian Academic Forum Volume 2*(1).