

School Plant Management in Nigerian Public Post-Basic Education and Career Development (PBECD): Challenges and Way Forward

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Abstract: School plant management is an important sub-component of the school system that is designed to ensure the effective organization of school facilities for the effective utilization of the school programme. Many public Post-Basic Education and Career Development (PBECD) have not been doing well in terms of managing their school plant. It is based on this that this paper discussed the challenges militating against effective school plant management in Nigerian public Post-Basic Education and Career Development (PBECD). The paper employed both primary and secondary data to provide empirical support to all the points raised. This paper identified funding, procurement, supervision, inspection and record keeping, protection, creating awareness on maintenance culture, routine maintenance of school plant, and prevention of individual commercialization of school plant as roles of the government and school managers in school plant management. This paper also identified inadequate funding, corruption, enrolment explosion, lack of community participation, engagement of untrained and unskilled personnel for maintenance, lack of maintenance culture, vandalization, and lack of supervision as problems militating against effective school plant management in Nigerian public Post-Basic Education and Career Development (PBECD). To address these challenges, the paper among other things recommended that government should increase the funding of public Post-Basic Education and Career Development (PBECD). achieve its mandate of socio-economic development which is the rationale for creating tertiary institutions in Nigeria.

Keywords: Challenges, School Plant, Management, Public Secondary School



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INTRODUCTION

Nigerian educational system comprises the basic education which includes the pre-primary, primary school and junior secondary school and the Post-Basic Education and Career Development (PBECD) and tertiary education. Post-basic Education and Career Development (PBECD) is one of the crucial forms of education because of its role in linking basic education to tertiary education. Post-Basic Education and Career Development (PBECD). Post-basic Education and Career Development (PBECD) is the form of education that prepares an individual for a career life in higher education. It is vital to national development. Post-Basic Education and Career Development (PBECD) in Nigeria is defined as the education children receive after successful completion of ten years of Basic Education and passing the Basic Education Certificate Examination (BECE) and Junior Arabic and Islamic Studies Certificate Examination (JAISCE). It includes (i) senior secondary education, (ii) higher school; and (iii) continuing education given in Vocational Enterprise Institutions (VEIs) to either Basic Education graduates who are not proceeding to Senior Secondary Schools, or Senior Secondary graduates who are not proceeding to the tertiary level, as a means of preparing them for the world of work, wealth creation and entrepreneurship (Federal Republic of Nigeria, 2013).

The objectives of Post-Basic Education and Career Development (PBECD) are to: Provide holders of the Basic Education Certificate and Junior Arabic and Islamic Studies Certificate with opportunity for education of a higher level, irrespective of gender, social status, religious or ethnic background; offer diversified curriculum to cater for the differences in talents, disposition, opportunities and future roles; provide trained manpower in the applied sciences, technology and commerce at sub-professional grades; provide entrepreneurial, technical and vocational job-specific skills for self-reliance, and for agricultural, industrial, commercial and economic development; develop and promote Nigerian languages, art and culture in the context of world's cultural heritage; inspire students with a desire for self-improvement and achievement of excellence; foster patriotism, national unity and security education with emphasis on the common ties in spite of our diversity; and raise morally upright and well-adjusted individuals who can think independently and rationally, respect the views and feelings of others and appreciate the dignity of labour.

The realization of the objectives of Post-Basic Education and Career Development (PBECD) depends on the availability of materials and human resources available in educational institutions. The human resources is made up of the

teachers and non-teaching staff while the materials resources include school plant resources etc. School plant resources are one of the major resources the school needs to carry out its functions. Briggs, & Walson, (2018) observed that Nigerian formal education has come of age, dating several years before independence. The school system is operated with some physical structures such as the school buildings, water supply sources, electricity supply etc. which are required for the smooth running of the schools. These support items for the running of schools are generally referred to as the school plant. Management of the school plant is vested in the school principal who is the head of his school. School plant provision and maintenance is very vital to the achievement of educational objectives. Briggs, & Walson, (2018) cited Okeke, (2013) who submitted that “As the skeleton is to a body, so are school plants necessary for the realization of result-oriented teaching and learning in school”. School plants are the skeleton of the school. The school plant/facilities consist of all types of buildings for academic and non-academic activities, equipment for academic and non-academic activities, areas for sports and games, landscapes, farms and gardens including trees, roads and paths (Asiabaka, 2008). The importance of the adequate provision of school plants in education to teaching and learning cannot be over-emphasized. The dictum that “teaching is inseparable from learning but learning is separable from teaching” is that teachers do the teaching to make the students learn, but students can learn without the teachers (Enwezor 2021; Briggs, & Walson, 2018; Okunamiri and Ajaeree, 2008). The provision, availability, adequacy and relevance of school plants influence efficiency and high productivity in schools.

Some public Post-Basic Education and Career Development (PBECD) in Nigeria are faced with the problem of poor school plant management. Instance, Mboto (2000) as cited in Musa (2017) lamented that “most secondary schools have poor school buildings structure, classes extremely hot in hot weather and very damp during the rainy season, teaching equipment of all sorts in short supply”. Enwezor (2021) observed that the plant makes the school an environment for learning. However, the problem some school plants are facing is management. This management problem is neither traceable to the students nor the teachers, but to the school principal whose responsibility is majorly to ensure good utilization of the school plant for effective teaching and learning.

Therefore, the objective of this study is to discuss the challenges militating against effective school plant management in Nigerian public Post-Basic Education and Career Development (PBECD).

The study employed both primary and secondary data to provide empirical support to all the points raised.

Concept of School Plant

School plants can be defined as those educational resources such as school buildings, school sites, and school equipment that aid in the implementation of school programmes such as teaching and learning and also protect the teachers, students and school administrators. Njoku (2004) viewed school plants as educational facilities that are tangible such as buildings, land equipment, pieces of machinery, furniture, fixtures and fittings which are put into use and capable of providing excellent educational services while Amanchukwu and Nwachukwu (2015) saw school plants as a school site, all the essential structures-permanent and semi-permanent such as machines and laboratory equipment and chalkboard needed for effective teaching and learning, other scholars have defined school plant in different perspectives. School plants according to Olagboye (1998) consist of the basic system and structures which a viable school or institutions need to function effectively and to fulfill the purpose for which it was established. He further says that school plants include the following: Building: classroom blocks, libraries, laboratories, workshops, hostels, staff quarters, assembly halls, administrative /office blocks, equipment: laboratory/workshop equipment, and sporting kits. Teaching aids, machinery: workshop machines/tools, secretarial machines e.g. computers, vehicles, furniture: classrooms/ offices, hostels/staff furniture, textbooks, stationary/library, electrical infrastructure: electrical fittings, fans, AC, overhead electrical conductor lines, generator, Water supply infrastructure: pipe born water, borehole, deep well water; tanks, etc. Walson (2015) observed that since the school plant is sine qua non to the achievement of school goals; it is a primary function of government and top management staff down to non-teaching staff to ensure that school facilities are provided and effectively managed. Alimim, Ehinola and Alabi (2012), submitted that school plants are made up of indispensable systems and structures required by any educational system to function effectively and achieve the objectives for which it was established. The authors noted that since education seeks to develop the minds and character of future citizens, their abilities, skills and potentials must be nurtured to meet the needs of contemporary society. To do this, school plants have to be supplied in adequate quantity and quality and maintained effectively through thorough supervision. Yusuf (2008) stated that the school plant is the space interpretation of the school curriculum. From this perspective, the curriculum will be impossible to implement if the physical facilities required for teaching and learning are neither available nor inadequately provided and maintained. Musisi, (2014) defined a school plant as the total number of all physical structures founded in a school setting mainly to promote the teaching and learning process, According to him school plants consist of all the laboratories, libraries, football pitches and swimming pools available for the use of both student and teachers for the enhancement of their performance. Another name for the school plant is infrastructure. Infrastructure can empower people (Ayeni, 2017). School infrastructure provides a conducive environment for both staff and students to develop their potential. More importantly is that massive infrastructural development provides a suitable environment and support for the development of entrepreneurship skills and industrialisation (Ayeni, Abdullahi & Andeshi, 2021).

Concept of School Plant Management

School plant management effectiveness entails good leadership, effective monitoring of both the users and the plant itself; applying proper maintenance culture of those facilities and other vital checks required for the school plant to give maximum services (Allen, 2015). Hinum (1999) opined that school plant management involves planning and keeping records of school facilities, supervising and evaluating their availability as well as encouraging teachers and students to participate in the

maintenance of school plants. Olga (2011) described school plant management as a series of decisions by individuals and groups in the school system to build school plants according to need, operating and using them effectively and efficiently to ensure that they are functional for use in the course of implementing school programmes. Some school plant management practices, according to Uko (2015), are very necessary for the academic growth of any school. These include provision, utilization, maintenance and inspection of the school plant. It is, however, the duty of the principal to ensure that these four practices are met. This can only be achieved where there is effective plant management in the school. Fencer (2004), stated that school plant management is the process that ensures buildings and other technical systems support the programmes of an organization. According to Adelabu (2012), school plant management is the process of planning, organizing, coordinating and budgeting for the building of a school plant to ensure that service delivery is facilitated and supported in the provision of education by a school. Articulating these views, school plant management in this context is the application of management functions of planning, organizing, coordinating and controlling the physical environment of learning for the actualization of educational goals in secondary schools.

School plant management and maintenance are the responsibilities of the government, the general public and all educational stakeholders like parents, school management, teachers and students. Effective management and maintenance of school plants is very important to keep or restore every facility to an acceptable standard. Maintenance is also necessary to sustain the value, and original state of facilities to keep them in good condition for use and to guide against wastage of existing facilities. School plant management enhances the expansion of educational programmes and accommodates more students in the school system. Also, school plant management aids an effective conducive environment for an effective teaching and learning process, school plant management is essential for promoting the integrity of the schools at a global level. Management of the school plant entails good leadership, effective monitoring of both the users and the plant itself; applying sound maintenance culture of those facilities and other things required for the school plant to give maximum services (Ndubuisi, Terfa & Ogunode 2021; Allen, 2015; Ehiamefor, 2001; Castaldi, 1994; Lawanson & Gede, 2011; Xaba, 2012).

A well-planned school plan will gear up expected outcomes of education that will facilitate good social, political and economic emancipation; effective teaching, and learning as well as academic performance of students. Therefore it can be said that the school plant is an essential aspect of educational planning. However, schools are well suited, buildings adequately constructed, equipment adequately provided and maintained much teaching and learning may not take place (Briggs, & Walson, 2018).

Briggs, & Walson, (2018) and Akinsola (2012) identified the following as roles of government and school administrators in school plant management. i. Funding ii. Procurement, iii. Supervision

Funding: The basic role of government in school plant management is to provide funds for procurement and maintenance. Thus, scholars have argued that money is the lifeblood of every organisation or society (Ayeni, 2017). Considering that secondary schools are no longer provided with overheads or grants as running costs, infrastructural decay becomes very common as means of funds to maintain them are not available. Government at various levels therefore needs to make adequate provision of funds in annual budgets for the provision and maintenance of school plants to enhance their durability for use in the pursuit of set objectives in schools.

The government also have a role in ensuring that funds provided for schools are accounted for to avoid misappropriation and misapplication in areas that are not necessary while school plants get rot. This is because, adequate funding alone may not guarantee the success of school plant maintenance, rather effective management of funds is imperative to achieve desired objectives.

Procurement: Another role of government in school plant management is the procurement of needed plant items. The low budgetary provision for the educational sector is waning in infrastructural development. The few available ones are in a state of disrepair due to unavailability of funds.

Supervision: Government and school administrators have specific roles in the supervision of school plant maintenance. Thus, it has been noted that the extent of success or failure of any human society or organization has its roots in leadership at all levels (Muhammed, & Ayeni, 2018). The government through the Ministry of Education should constantly set up pieces of machinery to move around schools and take stock of school plants and their status to ensure that they are maintained regularly to avoid breakdown. Besides, where funds are provided to schools for the maintenance of school plants, there is a need to supervise the appropriation of the funds to keep school plants functional to enhance teaching and learning. Accountability is therefore necessary in the application of funds in schools.

Inspection and Record Keeping: Other responsibilities of school administrators in school plant management are periodic inspection of available facilities, decentralization of maintenance, keeping record of school plant facilities that need to be maintained and seeking community support for school plant maintenance.

Protection: School administrators also have the responsibility of protecting school plants against fire outbreaks, pests and hoodlums to keep them in functional conditions always. Fire extinguishers must be kept at strategic points in the school compound for use to avert any fire outbreak. Generating sets should be protected with welded panels, while classrooms, libraries, laboratories, workshops and offices should be locked after school to avoid unnecessary use that could result in vandalization.

Creating Awareness of Maintenance Culture: Another responsibility of government and school administrators in school plant management according to Ajayi (2007) and Yusuf (2008), is creating awareness, mobilization and motivation of staff and

students to imbibe and internalize maintenance culture to give life to school plant. The government through the Ministry of Education can organize sensitization programmes in schools on effective school plant maintenance.

Routine Maintenance of School Plant: Another responsibility of school administrators is to ensure routine maintenance of the school plant to avoid total breakdown. School equipment should be regularly serviced according to the manual guide. Repairs and overhauls should be continually carried out as well as to keep machines and equipment functional always.

Prevention of Individual Commercialization of School Plants: School administrators should also avoid placing school plants as an individual money-making venture like renting school facilities for personal benefit.

Challenges Militating Against Effective School Plant Management in Nigerian Public Secondary School

There are many problems militating against effective school plant management in Nigerian public Post-Basic Education and Career Development (PBECD). Some of them include; inadequate Funding, corruption, enrolment explosion, lack of community participation, engagement of untrained and unskilled Personnel for maintenance, lack of maintenance culture, vandalization, and lack of supervision.

Inadequate Funding

Inadequate funding is a major problem preventing effective management of school plants in Nigeria schools. This problem was confirmed by Ndubuisi, Terfa & Ogunode (2021) who submitted that inadequate funding is a major challenge responsible for ineffective school plant management in Nigerian educational institutions. The funds appropriated for the administration of educational institutions in Nigeria are not adequate. Inadequate funding is responsible for poor school plant management of educational institutions in the country. Some school Heads state clearly that even though they dictate these faults in good time the school does not generate enough funds for such repairs. In this case, it becomes obvious that they are willing to carry out repairs but the financial resources are not there. Ogunode (2021) stated that inadequate funding is one of the major problems facing the administration of secondary school education in Nigeria. The budgetary allocation for the administration and management of secondary school education in Nigeria is inadequate.

Corruption

Corruption in the administration of Post-Basic Education and Career Development (PBECD) in Nigeria is another problem preventing effective school plant management. Ogunode (2021) submitted that institutional corruption is another problem facing the administration of secondary schools in the country. Funds released by the government for the administration of the schools sometimes ended up in the private hands. Funds meant for the capital and recurrent services in the secondary schools are been diverted by the officials of the ministries. Funds budgeted for different programmes in the ministries are been diverted into private banks. Many public funds meant for the development of education in Nigeria are diverted and mismanaged. Even though scholars like Ogunode, Ayeni, and Ogwuche (2024) have submitted that tertiary institutions can curb corruption through teaching and research. The limited funds provided for planning purposes in the various ministries, departments and agencies of education are been diverted and this is affecting the effective management of school facilities. Scholars have contended that corruption has almost been accepted by people as a way of life (Ayeni, Tusayi, Joseph & Obatayo, 2018). This corruption is so bad that it has been noted to pose a challenge to the well-being and sustainable peace of Nigerians (Ayeni & Sani, 2021). Corruption is becoming a popular phenomenon because the ruling elites employed laws and politics to rule Nigeria to their advantage to the detriment of the citizens (Godwin, Ayeni, Peter, 2021). Corruption persists because the government allows and encourages it. This is why it has been argued that when a structure like government fails to perform its expected role, there are bound to be negative consequences (Ayeni & Nwaorgu, 2018; Joseph, Cinjel & Ayeni, 2017). Consequently, the vices of corruption in Nigeria have been a source of worry and concern as it affect the national economy (Amaechi, Ayeni, & Madu, 2019).

Enrolment Explosion

The high rate of population moving from basic schools into the Post-Basic Education and Career Development (PBECD) is a challenge to effective school plant management in Post-Basic Education and Career Development (PBECD) in Nigeria. School plants are overstressed due to the high population of students per class. Terfa & Ogunode (2021) observed that enrolment has become a common feature in the Nigerian educational system. Many of the facilities on the ground are being overstretched. Okebukola (2005) released a list of some overcrowded universities where Olabisi Onabanjo University Ago-Iwoye topped the list with an excess enrolment of 24,628 students. This development will surely affect the quality of university education in Nigeria since excess enrolment usually leads to overcrowded classrooms, ineffective teaching and examination malpractices. Initially, it might be that the school plant was put in place to accommodate a certain number of learners. As time progressed, more children were enrolled in the system and no additional structures were built. Wear and tear will set in and learners will start struggling for the few available facilities/equipment. A typical example is when the learners start rushing for a few seats available for their lectures; some of these desks are damaged and at times injuries occur among the students. This is part of the dilemmas in the classroom as identified by Amanchukwu & Obijuru (2013). It is necessary to add more facilities and equipment as the population increases to avoid unnecessary disruptions during teaching and learning. Briggs, & Walson, (2018) and Adeboye (2002), observed that in managing school plants, caution should be taken in their usage in order not to underutilize or overutilize them to meet the expected objectives of why they were procured. Briggs, & Walson, (2018) and Aloga (2014), noted that when a class is overcrowded, the desks and seats will be overstressed and will break down easily and influence effective teaching and learning in the classroom. Such classes also become stuffy and ill-ventilated. This situation affects the health of the teachers and students. Stuff and smoky classes reduce the quality and quantity of air intake by students which

tends to lower studying and learning systemized by constant tiredness, yawning and feelings of dizziness or sleeping during classes (Briggs, & Walson, 2018; Okoys, Alao and Abosi, 2012).

Lack of Community Participation

Lack of communication participation in school management is also responsible for the poor management of the school plant facilities in the Post-Basic Education and Career Development (PBECD) across the country. Community members come into the school premises and damage facilities like chairs, tables and offices. Some Youth from the host community even turn some of the classes into smoking places. The attitude of some host communities to school plants is bad and not encouraging. The community do not see the need to protect the school facilities and this is contributing to the problem of managing the school facilities.

Engagement of Untrained and Unskilled Personnel for Maintenance

Another problem hindering effective school plant management in the Post-Basic Education and Career Development (PBECD) in Nigeria is the types of professionals engaged to carry out maintenance on the facilities. It has been observed that some of the people contracted are not professionals in school plant management. Ndubuisi, Terfa & Ogunode (2021) argued that many people claim to have the technical know-how to carry out repairs and maintenance on school premises and end up doing wishy-washy jobs that do not last. It becomes obvious that either we do not employ the services of the right people or we are trying to cut corners; which creates more problems than expected and leads to more wastage.

Lack of Perimeter Fence

Lack of perimeter fence in most Post-Basic Education and Career Development (PBECD) is another major problem hindering effective school plant management. Many public Post-Basic Education and Career Development (PBECD) do not have a fence. So, people have access to the school premises and damage school facilities. Musa (2017) lamented that the major problem principals are facing in terms of school plant management is that most of their schools are not fenced.

Lack of Maintenance Culture

Poor maintenance culture among the school stakeholders is a major challenge to effective school plant management. Some of the School administrators, teachers and students do not protect and maintain the school facilities. They damage them and misuse them. Some school managers do not have the skills and knowledge to manage school plants. Terfa & Ogunode (2021) observed that the way and manner some educational institutions are being managed by the managers has also had a consequential effect on school plants in the educational institutions. For most educational institutions, management means little more than playing the role of "Caretaker". This vital function has been largely reduced to the maintenance of the status quo. This unfortunate development significantly negates the concept of school plant management, particularly in a developing nation like Nigeria. It seems certain that as long as management continues to play a non-challan role, school plant management will continue to be jeopardized in educational institutions. Another important factor is that many Heads of Schools do not delegate duties. They want to have an eye on everything that is being done thereby delaying other areas that need urgent attention. There should be decentralization of authority and duty to achieve success since the essence of management is to achieve success. It has been observed that government property suffers a lot of neglect. The users of these properties occasionally feel that they are government property therefore it is nobody's business. This non-challans attitude must stop to dictate faults in good time and adequate and instant repairs made to avoid wastages. Terfa & Ogunode (2021) pointed out that a lack of maintenance culture has eaten deep into the fabric of the nation's citizenry. If the school authorities (Headteachers, teachers) and other workers take care of these properties, learners will emulate them and go a long way in preventing damage to those properties. Yusuf (2008), asserts that poorly maintained buildings, untidy walls, and overgrown compounds with grasses may suggest that the education that is given in such an environment follows the same pattern. Therefore, when new buildings are constructed and other school plants are acquired, attention should be given to maintenance to enhance their durability. Asiyai (2012) noted that negligence in the maintenance of school plants has many negative effects Constituting health hazards to students and teachers who use them; resulting in wasted resources, leading to poor teaching and learning activities and making the school environment untidy and unsafe for staff and students.

Vandalization

Another challenge to effective school plant management in Nigerian public Post-Basic Education and Career Development (PBECD) is the problem of vandalism. Students and some teachers are found with the habit of spoiling school facilities. Ndubuisi, Terfa & Ogunode (2021) submitted that the vandalization of school plants is another factor that should be looked into. Schools should teach the learners the culture of maintaining school property, which will help them not to destroy but cherish it.

Lack of supervision

Briggs, & Walson, (2018) and Akinsola (2012) submitted that the government and school administrators have specific roles in the supervision of school plant maintenance. The government through the Ministry of Education should constantly set up pieces of machinery to move around schools and take stock of school plants and their status to ensure that they are maintained regularly to avoid breakdown. Unfortunately, these roles are neglected and have not been carried out as of when due. Ndubuisi, Terfa & Ogunode (2021) observed that regular supervision is not carried out by the Ministry of Education regularly and that contributes to the chaotic situation of the school plant. When officials from the ministry do their work as and when due, the worrisome state of school plants will be avoided and school activities will not be disrupted. Enwezor (2021) concluded that the principal's ineffectiveness in the management of school plants in some schools has led to the collapse of

many schools, poor quality of teaching and learning, lack of seriousness by both the teachers and the students, as well as the graduation of incompetent students.

Way Forward

To address the various problems identified as militating against effective school plant management in the Post-Basic Education and Career Development (PBECD) in Nigeria, the paper hereby recommended the following:

1. The government should increase the funding of Post-Basic Education and Career Development (PBECD) in Nigeria. This will help the school administrators to have access to enough funds to carry out maintenance when due on any of the plants.
2. All forms of corruption in the Post-Basic Education and Career Development (PBECD) administration should be fought and the deployment of all anti-corruption agencies. This will help to prevent the diversion of money meant for school plant maintenance.
3. The government and school administrators should regularly inspect the school plant and other facilities with the vice-principals to ascertain the conditions of the facilities, record their observations and take measures to report any identified fault promptly to the Ministry of Education. This will help to sustain the durability of the school plant
4. The government should ensure full implementation of school-based management committee programmes in all the Post-Basic Education and Career Development (PBECD). This would help to encourage the community's participation in the school plant management and protection.
5. School administrators should engage professionals in the issues concerning school plant maintenance and repairs. This would help to reduce costs and ensure quality works are done.
6. The government should ensure all Post-Basic Education and Career Development (PBECD) schools are fenced. The community should be encouraged to participate in the provision of funds for this project.
7. The school administrators should punish students and teachers who show a lack of care for school property and school buildings, such as defacing the walls with graffiti, carelessly breaking the window or door glass panes and dropping litter on school lawns and corridors of school buildings.
8. The school administrators should establish a school maintenance programme together with the school staff and the students and teachers and students should be assigned roles and functions to protect the school facilities from damage

CONCLUSION

School plant is very important for the implementation of the school programme. School plants are the resources that provide accommodation for educational resources to function. The school plant management is faced with many challenges in the Nigerian public Post-Basic Education and Career Development (PBECD). These challenges include inadequate Funding, corruption, enrolment explosion, lack of community participation, engagement of untrained and unskilled Personnel for maintenance, lack of maintenance culture, vandalization and lack of supervision. The government should increase the funding of Post-Basic Education and Career Development (PBECD), ensure proper supervision of the school plant, fight all forms of corruption in the school administration, engage professionals in the repairs and maintenance of the school plant, school administrators should establish a programme on school plant protection and maintenance and host community should be encouraged to participate in the school plant management.

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