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MANAGEMENT OF PHYSICAL FACILITIES AND EQUIPMENT IN COLLEGES 0F EDUCATION IN SOUTH EAST, NIGERIA

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ABSTRACT

This study is theoretical in nature and focused on physical facilities and equipment in the implementation of the programs of Colleges of Education. It discussed meaning of physical facilities and equipment, types of physical facilities and equipment, importance of physical facilities and equipment in the implementation of the programs of colleges of education, management of the college facilities, supervision of college facilities and equipment and equipment, roles of college provost in facilities and equipment management as a basis for proposing measures for improvement and challenges of Provosts managing college physical facilities and equipment. Type of physical facilities identified in the study included educational facilities; recreational facilities; health and security facilities and transportation facilities. Some challenges to physical facilities and equipment in the implementation of the programs of Colleges of Education included human factor is a very big challenge because the college provost manages these facilities and equipment through some members of staff with different behavior, thinking and perception. Therefore, there is tendency that the provost might be receiving wrong information, inaccurate record of items which might lead to not having exact data of students and facility. Moreover, there are some staff members that might not be paying attention by not having active listening ears to the provost when he/she gives instructions pertaining the facilities and equipment. Provision of inadequate fund is another challenge. Government being the main source of funding education in South East Nigeria does not provide sufficient resources for educational needs and this pose a big challenge to college provosts. Most times it seems to make the provosts redundant as they will know what to do but due to insufficient fund, they cannot do it. It also leads to poor maintenance culture. As part of suggestions for improvement, the provost should always make detailed planning on how to manage facilities and equipment so as to avoid having dilapidated equipment or facility.

Keywords: Management; Physical Facilities; Equipment; Colleges 0f Education

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Introduction

Physical facilities and equipment are indispensable in colleges of education. They help in improving the standard of teaching and learning, therefore, their maintenance is extremely necessary because no college of education can perform without adequate and well maintained facilities and equipment. Akomolalefe and Adesua (2016) emphasized that physical facilities in any school system range from the school plant, that is the school buildings, classroom, library, laboratories, toilet facilities, learning materials to other infrastructures that would likely motivate students towards learning. Physical facilities as buildings or places that provide services in schools are needed by colleges of education as it will have a positive impact on the outcomes of teachers and students. Physical facilities and equipment affect the teachers' commitment, recruitment, retention, period of stay in the college and frustration level. They affect the students' academic performance, attitude, behavior, health and engagement. This shows that without adequate and well maintained facilities and equipment, it will be extremely difficult for the college to achieve its aims. School equipment are instruments needed to achieve the school objectives. These facilities and equipment need maintenance for effective delivery. However, it seems that that there is inadequate and lack of maintenance of college facilities and equipment which appear to cause slide in quality of education in colleges of education.

This chapter therefore discusses:

- Meaning of physical facilities and equipment.
- Types of physical facilities and equipment.
- Importance of physical facilities and equipment in the implementation of the programs of colleges of education.
- Management of the college facilities.
- Supervision of college facilities and equipment and equipment.
- Roles of college provost in facilities and equipment management as a basis for proposing measures for improvement.
- Challenges of Provosts managing college physical facilities and equipment.
- Suggestions
- Conclusion

Meaning of School physical facilities and equipment

Physical facilities contribute so much in educational delivery. It makes schools proud and helps in attracting more students. A student that passes through a school that has computers and adequate school \physical facilities competes favorably with his/her counterparts globally. Akomolafe and Adesua (2016) see school physical facilities as the school plant that is, the school buildings, classrooms, library, laboratories, toilet facilities, offices and other materials and infrastructures that would likely motivate students towards learning .School physical facilities are the facilities provided to student in other to utilize every

opportunity to build full potential, this includes not only the classrooms but also sports facilities, school libraries, Information and Communication Technology (ICT), music rooms, health and security facilities. School facilities are also the physical properties of a school consisting of the grounds, buildings and the various facilities within the school grounds and inside the school buildings. This emphasizes that school physical facilities encompasses all the items and facilities in the school.

School equipment is a durable machine, tool or equipment use by students as part of a program, course or activity in a school for the achievement of educational goals. It is also tangible objects used by Colleges of Education in support of teaching instruction and other activities in the school. School equipment includes all operating software, application software and firmware owned by the school for the benefit of the school programs and activities, examples are: LCD projectors, computers, security gadgets, laboratory equipment, library equipment tablets, printers, and photocopiers among others. No school can produce effective and efficient student if the school facilities and equipment are not adequately maintained. This is why most parents carry out investigation on a school prior to seeking admission in the school for their children. School physical facilities and equipment are the center of any school as it mars or makes a school.

Types of physical facilities

1) Educational facilities
2) Recreational facilities
3) Health and security facilities
4) Transportation facilities

Educational facilities:

No effective teaching and learning can take place without adequate educational facilities. Ugwulashi (2017) stated that educational facilities comprise of infrastructure and instructional facilities in the school. These facilities are the backbone of effective teaching and learning in schools because they as serve motivator to both teachers and learners. Educational facilities is also said to be any building used for instruction of enrolled students in a school. Instructional facilities are classrooms, seminar rooms, instructional laboratories, computer laboratories, libraries and other spaces used principally for the purpose of delivering formal instruction to students (Heyes –Mcalonie and Bailey 2018). Instructional facilities are also said to be all the facilities that facilitate teaching instruction, such as classrooms, library, laboratory facilities, computers laboratory, and language laboratory, teaching materials, audiovisual aids, textbooks, film and slide projectors, charts, pictures, radio, display boards and television set. They make teaching and learning effective as it helps in easy understanding of what is being taught.

Infrastructure facilities are the furniture and equipment in the school. School equipments are those devices that are indispensable tools

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for effective teaching and learning. Examples are; laboratory equipment, library equipment, office equipment and computers, video tape player/recorder, DVD players, projector, graphic calculators, electronic white board, video conferencing and other distance education tools. Furniture includes the chairs, tables, bookcase, cupboards, cabinets, shelves and divans, they are very necessary in the school as the chairs are for seating and for good posture and it's important for proper physical development of a student, school tables are for students, teachers, library, demonstration, dinning and conference. Normally, they are designed according to the purpose. Bookcases, cupboards and so on are mainly for storage and displaying of materials.

Health and security facilities

Health facilities are those facilities that are for proper taking care of health of the staff and students, they are school clinics or health centers. It is always necessary to have school clinics built in schools as this will build confidence among the staff and the students. It takes care of minor health problems college community. At least, it will give first aids to the patient before taking the patient to the hospital. School clinic is preferred to have experienced and qualified health personnel in other to comfortably and confidently provide information to parents and school authority on the health status of students and staff. It also has room for hospital counselors that give advice and counseling services to the college community .A good school clinic promotes social, mental, physical, emotional and educational development of students.

Security facilities: school security involves all measures taken to fight threats in school community and preservation of the liberty of the staff and the students in the school. Good security in school helps to enforce disciple in students, maintains peace, law and order within the colleges and protects lives and property of the college staff, students and college itself within and outside the campus. To achieve these, college security facilities like patrol vehicles, hand cuffs, leg chains, stun guns, CCTV cameras at strategic places, bomb dictators, metal dictators, siphon cameras, walkie-talkies, telephones and other modern communication gadgets for effective communication need to be in place. These security facilities will help the chief security officer and other security personnel carry out their duties effectively and achieve maximum security in the school .Other necessary security constructions that will enhance security in colleges are well structured school gate and strong fence that will be built around the school to secure the school community against marauders, criminals and wild animals.

Recreational facilities:

Adeyemo (2008) sees recreational facilities as the equipment and materials that pupils use to engage in the various recreational activities .Recreational facilities are those harmless objects, play-ground, equipment, materials, athletic facilities and space socially acceptable, used by individuals to

facilitate their recreational activities. There are outdoor and indoor recreational facilities. Outdoor recreational facilities are those sports facilities that are not in an enclosed place, mostly in natural settings. They are mostly built outside the building: example –football, badminton, lawn tennis, high jump, long jump, swimming, slide, and basketball, net ball, table tennis and so on. In-door recreation facilities are those sports facilities that are kept in an enclosure of a building, they include scrabble, lido, chess, playing board games and computer games. These recreational facilities are important in schools as they are used to facilitate classroom instructions and recreational activities by the students.

Transportation Facilities:

Transportation is the movement of people and goods from one place to another and means of accomplishing the movement. Transportation facility means anything built, installed or established for moving goods and person from one place to another. There are different means of transportation but the commonest one in school is by car. In colleges car maintenance is very vital as most of the activities in the school are done through the help of vehicle; this includes both official and private cars of the colleges. It is the schedule of works department in the college to see to the maintenance of the college vehicles. Most times, vehicles are used to convey students to and fro the school.

Importance of physical facilities and equipment in the implementation of the programs of Colleges of Education

School physical facilities and equipments refer to the school plant, that is the school buildings equipment, classrooms, library, laboratories, toilet facilities, offices playground, sports facilities and infrastructures that would motivate students towards learning. They are the corner stone of education because physical facilities and equipment are important in carrying out the school programs. They are essential ingredients in the effort to realize effective teaching and learning outcome. Quality and availability of physical facilities and equipment have impact also on the wellbeing of students and teachers. More so, effective management of physical facilities and equipment brings about development of educational programs and facilitates educational process. Major reasons why they are important to college management are:

1) Educational facilities and equipment have very big impact on the teachers and students outcomes. This is because without adequate educational facilities and equipment, serving a large number of students in the college will be extremely difficult and the expected outcome will not be achieved. Educational facilities affect the teachers' job satisfaction as it either undermines or grows their motivation to teach. This is because where there are adequate educational facilities and equipment, teachers are encouraged and motivated to teach better unlike where there

in lack of adequate educational facilities in school, thus adequate educational facility in school is important predictor of teachers' motivation and students learning. It was also noted by Ajayi (2020) when he stated that running a school system without adequate provision and maintenance of school plant can be very cumbersome for teachers. For instance, college library provides many opportunities to learners to acquire knowledge which facilitates to achieve greater academic performance. It contributes to total development of the students and enlarges their knowledge

2) School buildings and classrooms are the most important physical facilities in college this is because students most of the time stay there for reading, learning, discussion, recreation, leisure, and accommodation. They are also needed to facilitate both the staff and students to complete most programs of instructions. A college with improper or inadequate building affects the teaching and learning of students.

3) A well-structured and adequate capacity buildings help develop students' mentality, educationally and socially. Physical facilities and equipment affect health, behavior, engagement, learning and growth in staff and students achievement. This shows that the physical, mental and emotional health of both staff and students depend on the facilities and equipment provided in school. This is so because mental health issue can affect a student's energy level, concentration in class, thinking ability and other school activities. It can also cause depression on the student which invariably brings about academic disengagement and makes the student have lower grade in quiz and examination and poor retention memory. All these hinder students' academic performance.

4) School medical centre is very important as it saves both staff and students lives. It basically serves as first aid and treatment of minor illnesses to staff and students in colleges. The medical centre requires qualified personnel to build the trust and confidence of the staff and students. It helps staff and students in emergency cases. It also helps in examining incoming students medically to make sure that they are medically fit to live in the school. Any medical or physical defect dictated can be brought to the notice of the college provost. The college health center also carries our regular inoculation like yellow fever, meningitis, hypertytis B and so on for the students. These are the activities of the college medical Centre that will make students remain reasonably healthy for the achievement of education goals and objectives.

5) Students discipline is paramount to the attainment of positive students' outcomes. School discipline is all the strategies that can be used to co-ordinate regulate and organize individuals and their activities in the school to establish and maintain an environment in which teaching and learning can take place (Fields 2011). Students' indiscipline is any behavour shown by the student in the school premises or outside the school that is wrong

or disapprobation to the school authority. Students' indiscipline are: absenteeism to lectures, late coming to lectures, indecent dressing, disrespect to lecturers, cultism, examination malpractice, drug abuse, quarrelling, rudeness to school authority, forgery and so on. Scheerens (2003) noted that availability of physical resources enhances the effectives of students and brings out student good behavior. The is because when students believe or are aware that the college will provide a second home that cares about them, provide the support necessary and important to their successes, they tend to be more disciplined. Akinsolu (2008) stated that enrolment explosion without supplemental provision of school physical facilities and equipment to match the student population was a key factor affecting student discipline in Nigeria. Therefore discipline incident increased in colleges with better buildings. This indicates that quality physical facilities and equipment in college can affect both the attitudes and achievement of students.

6) Availability and use of physical facilities, laboratories, classroom, libraries and equipment make classroom learning environment conducive (Mutai 2006). Staff and students need to have conducive environment as it will help boost effective teaching and learning .No teacher or student can teach or learn in an atmosphere that is hazardous, insecure or dilapidated. Also outdated equipment and facilities do not yield good teaching and learning as they will fail to deliver the 21st century skills. School facilities and equipments also make classrooms and school environment very interesting, beautiful, and exciting which encourages more parents to seek for their children admission into the college. This was emphasized by Muringi (2012) when he stated that school building must not be only a container or a functional program but also friendly and attractive. This shows that school facilities and equipment contributes to the population of the school especially in urban areas where there is competition of schools.

7) Recreational facilities are important in colleges because they give students ample opportunities in seeking their talents. It paves ways for students that are sports inclined to identify their talents and go for it. It also helps in keeping students busy in colleges by reducing unnecessary wandering and channeling their energy and abilities towards productive and socially acceptable activities. Outdoor recreation improves physical health by keeping students fit and healthy for adequate learning, because it is only a healthy person that will assimilate whatever that is taught in the class and this could be ensured by physical exercise. Outdoor games should be well planned, organized and safe in other to achieve its aim. Recreational facilities are important for effective teaching and learning in colleges because without them teaching will be abstract, boring and uninteresting. Students will always like to have some refreshment so as to ease out lecture tension, they mainly do this by going for games and exercising themselves, boys most of the time go for football, table tennis, basketball, lawn

tennis, while girls prefer indoor games. School canteen also serves as a relief to staff and students from the normal routine school stress and work load. Staff and students go there for refreshment, discussion, brief meeting, recreation and lunch during school time. Moreover, provides a relaxation moment for both staff and students that helps them refresh their minds.

8) School transportation is again one of the school facilities. Transportation in colleges includes all the official vehicles in the school and their maintenance. These vehicles serve a lot of purposes like: transporting students to and fro the school and serving as official vehicles. They help in easing a lot of work load for senior officers as their drivers carry out most of the errands. Colleges without adequate and well maintained vehicles find it difficult to implement their daily programs.

The management of college facilities and equipment

The provost of the college is the manager of the college facilities and equipments. He does this with the help sof school deans, dean of student affairs and director of works department who receives instruction from the college provost.

TETFUND (Tertiary Education Trust Fund) a scheme established by the Federal Government of Nigeria in 2011 to disburse, manage and monitor education tax to government-owned tertiary institutions in Nigeria most times provides buildings and facilities for the colleges, building likes: library, micro teaching laboratory, classrooms and lecture halls. In maintaining the facilities and equipment, the deans of schools and the dean of student affairs report to the college provost who will call the director of works for a meeting based on the written report from the deans concerning the maintenance of their facilities and equipment, The maintenance will later be carried out through the head of works department after some deliberations with the college provost. If it is an urgent repair like electrical fault, water system or water issue the concerned deans must consult the provost who seeks the management decision and their approval before approving the money through the director of works. A less serious fault could be done by the concerned dean and request the money from the provost later.

The director of works who does purchases for the maintenance of the college facilities and equipment prepares the estimate and submit to the college provost for approval by the management. The director of works must show the purchased items to the provost when bought. If it is equipment worth more than one million naira, the provost will write and request the approval of the visitor through commissioner of education. This is the process for effective maintenance of facilities and equipment in colleges. This process is necessary to reduce the rate of mismanagement of fund and to get quality work for a better and standard education.

Effective maintenance of school facilities and equipment safe guards the health of students and staff and improves the school environment. Again it enhances effective teaching and learning, ensures high education standard which leads to achieving the aims and objectives of colleges of education in Nigeria. It also improves safety of the college community as ICT security gadgets, college fences, gates and security facilities will be maintained.

Supervision of college facilities and equipment

The college provost at times does the supervision by himself and most times delegates the supervision duty to the director of works who reports back to him. The director of works department supervises the buildings and knows the ones that need renovation, reconstruction or condemnation and then reports to the provost who makes reports to the college management. The director of works also is in charge of supervising any new project in the college on behalf of the provost.

If its tetfund project an engineer from ministry of education representing the tetfund will also be involved in the supervision. Tetfund will approve the estimate, and then it will go through the council to the governor for the project to commence. Tetfund brings the money in tranches and the tetfund engineer will be supervising the project as it goes on and gives written report on the project. They bring the money in tranches for effective supervision.

Roles of college provost on facility and equipment management

College of education plays a very vital role in training future teachers. To achieve the main aim of establishing colleges of education in Nigeria which was to combat the dearth of qualified teachers in the primary schools, the facilities and equipment of the college must be adequate and in good shape. It is the duty of the college provost to see that these facilities are adequate and maintained. The provost has the following roles to play in other to achieve this;

a. Pre-planned routine maintenance –A comprehensive maintenance is done periodically such as daily, monthly, quarterly, twice a year or yearly. This maintenance helps to save the college from having breakdown of equipment and facility; examples are; the cleaners cleaning the equipment and facilities daily, cleaners maintaining the college compound daily by sweeping, cutting grasses, landscaping and up-keeping of the lawns. Maintaining the school furniture by going for regular inspection. Regular inspection of the college furniture with the delegation of the college provost is very necessary as it will help in early detection of problem in college facilities and equipment.
b. Predictive maintenance: this is the kind of maintenance that is based on prediction. The college provost relies

on the study of forecasting techniques and pre-emptive behavior analysis of the building maintenance system. The provost through the head of works department takes accurate date of the futuristic plan on the equipment and facilities of the college. He will be able to predict years that it will take the college equipment or facilities to require maintenance or be replaced. This type of maintenance will help the college in facility planning by making the college provost have an idea when to maintain any equipment or facility and when to change them. Data from the works department are collated for statistical analysis in order to provide absolute forecasting and avoiding preventing events that might take place under certain set of replacement.

c. Providing a complete and comprehensive furniture system in the college building; college facilities are provided for the students, staff, the college community and as well as the surrounding communities. The surrounding communities can have access to rent the college facilities like the hall or school compound for wedding, meeting, village seminar, or any activity. The works department with the consent of the college provost provides these facilities and equipment like computer laboratory, equipments for science laboratories, chairs, desks, tables, offices for staff, sports equipments and different types of furniture. When these facilities and equipments are accurately and adequately provided, it motivates both the staff and students to teach and learn effectively hence, resulting to quality and standard education. It also improves students' concentration and boost interpersonal and intrapersonal communication.
d. Facility management maintenance; these facilities and equipments need adequate maintenance for effective teaching and learning. A college that is not maintained cannot deliver and cannot give quality education because of the dynamic nature of education. Therefore for any college to meet with the trend in education and the 21st century skill, the facilities and equipment must be maintained. The works department sees to the repairs of facilities and equipment because they are equipped to so by having different specialties in engineering and technicians. They take care of repairs like plumbing, electrical, building maintenance, vehicle maintenance and every other repair, which head of works department co-ordinates for effective delivery.
e. Response to emergency maintenance; There are occurrences that are unavoidable, they are either natural or they happen unplanned, examples are ; Natural disaster like

flood, earthquake, internal disaster like- shooting, fire outbreak, electricity and water break down, these disasters can disrupt the activities of the college when they happen. The works department has to be at alert for immediate and emergency rescue of the college from the adverse effect of these disasters. The head of works department in the facility plan for the year which is submitted to the provost has to make provision for emergency maintenance so that it will not come as a surprise or shock when it happens, because most times it needs immediate repairs to save the situation. This kind of disruption can cause death or injury to students or staff, students' demonstration and finally closure of the college. Situations like this are better avoided in colleges for the smooth running of the college and quality delivery.

f. Drafting report and making written recommendation; the head of works department drafts report on the college facilities and equipment and present to the provost for further action. The report contains the situation of the facilities and equipment and what are required to improve their condition in a special period of time. The report is drafted and submitted to the college provost who presents it to the management. The report also contains written recommendation and gives the works department the idea on how to tackle the purchase and maintenance of the college facilities and equipment.

Challenges of managing college facilities and equipment

As the college provost performs the above mentioned roles, there are some challenges that constitute obstacles to the effective management of physical facilities and equipment. These challenges are:

- Human factor is a very big challenge because the college provost manages these facilities and equipment through some members of staff with different behavior, thinking and perception. Therefore, there is tendency that the provost might be receiving wrong information, inaccurate record of items which might lead to not having exact data of students and facility. Moreover, there are some staff that might not be paying attention by not having active listening ears to the provost when he/she gives instructions pertaining the facilities and equipment.
- Provision of inadequate fund is another challenge. Government being the main source of funding education in South East Nigeria don't provide sufficient resources for educational needs and this pose a big challenge to college provosts. Most times it seems to make the provosts redundant as they will know what to do but due to insufficient fund, they

cannot do it. It also leads to poor maintenance culture.

- ❖ Inadequate skilled personnel to handle equipment makes it difficult to operate most of the equipment effectively. Again the few of them available are poorly motivated and this might cause them to relent in their services and deliver poor services. Thereby affecting the provost's facility and equipment management.
- ❖ Improper planning by the provost is another big hindrance. At times the provost before embarking in any project don't do physical planning to estimate time and costs required for the project. They don't again carry out resource planning.
- ❖ There is also problem of poor communication between the provost and the head of works department. This creates hindrance in the process of managing educational facilities and equipment.
- ❖ Inflation in the country now is overwhelming. The rate of high cost of living is very high today. This makes management of these facilities and equipment difficult. The prices of materials and equipment changes rapidly that one cannot predict the market prices nowadays. The effect of this makes planning very difficult as most items could not be bought at the prices budgeted.

Suggestions

Based on the above challenges, the following suggestions were made:

- The provost should always make detailed planning on how to manage facilities and equipment so as to avoid having dilapidated equipment or facility.
- Motivation of the available skilled workers by the provost for effective delivery.
- The provost to always have effective communication with the director of works for him/her to intimate the skilled workers on what to do exactly and when to do it.
- The provost to source for fund from communities, stakeholders, parents, organisations and grants so as to supplement government fund for good management of the facilities and equipment.

Conclusion

Physical facilities and equipment are very important in the implementation of the programmes in Colleges of Education. However, there are numerous challenges that face the provision and management of physical facilities in colleges of education in South East, Nigeria. These challenges can be surmounted by through the suggestions made in this study.

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