

## **Strategies for Effective Utilisation and Maintenance of Physical Facilities in Technical Schools**

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### **Abstract**

The population of students has continued to grow every year at the expense of the available physical facilities for their use. Disappointedly, government has failed to consider the need to expand or put in place new facilities thereby making the existing facilities over-utilized because of the pressure on them and this has eventually led to greater frequency of breakdown which required heavy rehabilitations. The paper then proffers strategies for a thorough understanding of effective principles and practices of managing technical schools physical facilities by the technical schools administrator for an effective teaching and learning outcome.

### **Introduction**

Education today is faced with a requirement for greater competence for greater numbers in a market where school construction costs have risen sharply. This means that present and future technical school facilities must be reviewed very carefully and very critically. Anunobi (1998) defined educational facilities as the material things that facilitate teaching and learning processes in schools, which includes all kinds of buildings, instructional aids and devices such as modern educational hardware and their software in the form of magnetic tapes, films and transparencies. Anunobi further indicated that educational facilities are those things of education which enable a skilful teacher to achieve a level of instructional effectiveness that far exceeds what is possible when they are not provided.

The physical presence of these facilities do not in themselves, constitute functional physical facilities. They have to be planned and designed to suit the needs of the learner and to provide a comfortable learning environment. There should be comprehensive educational planning stages of the college facilities. So to make technical education more functional, the planning and the designing of the facilities should take into consideration the curriculum needs of the learners and the needs of the society. Also, adequate provision should be made for the relevant and adequate manpower to ensure that the technical school faculties are operated efficiently and optimally with regards to service they have to provide. By so doing the skill that are to be required by the students will be the one needed for technological advanced country of the world.

### **Maintenance of Technical School Physical Facilities**

Maintenance in engineering work is defined as the functions that should be carried out often in order to keep the plant or any engineering equipment in good operating condition. It is an important aspect of every manufacturing industry. For example, anyone who has been delayed on a journey because of a breakdown of the vehicle, be it plane, train, bus or motor car, will definitely experience inconvenience and frustration. A breakdown is the result of inadequate maintenance of equipment. In all workplaces, maintenance is needed in order to keep equipment in good working condition. Maintenance implies activities put in place to keep and restore the physical conditions of an item. When activities such as repairs, servicing, painting, galvanizing, greasing etc and which is being carried out on any component of the physical facilities in an attempt to keep or restore it and more importantly, to ensure that physical facilities are in good shape.

The common goal of operation and maintenance is to keep physical plants in their best possible condition for instruction at all times. It is therefore, necessary that school administrators understand the techniques and principles of operating and maintaining technical school facilities. There is a consensus of opinion that efficient school facilities maintenance requires

maximum co-operation and hard work from a combined team of the ministry of education officials, Science and Technical schools board, the school principal, the teachers, the students, other technical school personnel, and the community. Maintenance services take different forms. These include predictive maintenance, preventive maintenance and corrective maintenance.

### **Importance of Technical School Facilities**

Technical Education facilities are those goods and services that help to facilitate teaching and learning process in the educational set up. These include the spaces, equipment, workshop, laboratories, studios, library, classroom, other utilities etc. which assist education to function and attain the set educational goals of and Technical skills that are used in the world of work. Ezeji (2004) defined school facilities, as physical element of teaching, learning and operating environment which include all properties, media and materials. Technical Education facilities management therefore entails planning, coordinating and controlling of all the physical elements and components of the institutional operation which include equipments, machine, tools, site construction, renovation, modernization and maintenance.

In actual fact, no technical education can be functional without an effective and efficient instructional facilities well put in place, which should be utilized to actually inculcate the technology skills that are needed for maximum development.

How do we make technology education in Nigeria more functional through effective instructional facilities management? What one can derived from the new policy of education is that much emphasis is laid on skill acquisition and if that should be the case, before our education can be made to be functional, a well articulated planned and properly managed facilities have to be put in place in our technical schools.

Many studies have been carried out on the influence of facilities on students achievement. In one of such researchers, Adeboyeji (2000) asserted that "students learn best when they can actively explore an environment rich in instructional media when they are given the responsibility to make meaningful



choice about what is to be learned, when they are able to interact informally with the media". In his contribution, Adeboyeji (1994) believes that the quality of education that our children receive is directly related to the availability or the lack of physical facilities and overall atmosphere in which this learning take place. Similarly, Adigun (1994) noted that school facilities and education goals should be viewed as being closely interwoven and interdependent. These should also have impact on the comfort, safety and performance of the student.

The role of facilities in technical education was stressed by the organisation for Economic cooperation and development in their report on educational building project (1980), in which they are of the opinion that the speed and effectiveness of educational expansion would largely depend on the development of suitable college facilities. They recommended standard in the area infrastructure and equipment for effective performance. Infact, to make the nation's technology education more functional it policy must be observed, optimally with appropriate trained and motivated teaching staff, adequately supplied with necessary well planned, efficient and effective technology education facilities.

### **Utilization of Technical School Physical Facilities**

Utilization implies that degree or extent to which an item has been put into effective use, in other words, it is the extent of usage of an equipment or item. If the item or equipment is not used maximally, then we can talk of under-utilization of such item but if maximally used, such an item or equipment is effectively utilized. If there is much pressure on the use of an item, this may result in over utilization, which usually leads to break downs of such item or equipment. Broadly speaking, this concept demands thoughtful planning, adequate insurance, wise utilization and maintenance as well as proper keeping and evaluation of school physical facilities (Adeboyeje, 1994).

According to (2004), in order to make optimal use of physical facilities, school personnel and members of the community should have adequate knowledge of the functioning of such facilities, and the alternative uses to

which they could be put. Without such a knowledge, some items will be under-utilized, while others will not be used at all.

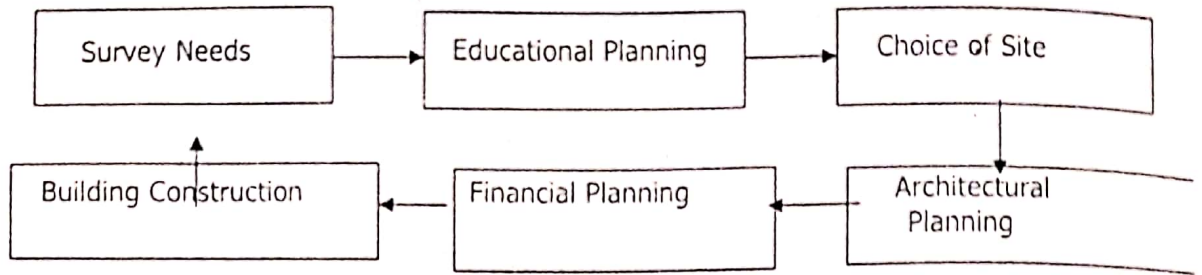
### **Stages Involved In the Provision of Technical School Physical Facilities**

There is no doubt the provision of adequate and appropriate school buildings is one of the most important responsibilities of school administrator. In order to ensure that buildings are constantly relevant and adequate, there is a compelling need for systematic planning. Anunobi (1998) recommend that comprehensive and flexible long-term plan for the procurement and maintenance of school facilities should be developed. The plans if put in place will ensure that school programmes and buildings meet the total educational requirements of the community and the country at all times.

Adeboyeje (1994) recommends the following stages for the school administrators to adapt in order to ensure efficient provision of buildings. These stages are stage of:

1. adequate survey of needs
2. wise educational planning
3. choice of site
4. architectural planning
5. prudent financial planning
6. efficient plant construction.

Each of these stages has its peculiar characteristics and requires specialists such as Ministry officials, school architects, educational consultants and the engineers.



**Fig I:** Elements in the procurement of school buildings.

**Source:** Adeboyeje, R. A. (1994) Management of School Physical Facilities Ibadan: Fountain Publications P.33.

### **Problems Militating Against Effective Utilization and Maintenance of School Physical Facilities in Nigeria**

Several problems have been identified in the literature, as militating against effective utilization and maintenance of school plants. The problems include the following:

1. **Financial Constraint:** This problem is very common in the technical schools. Indeed, essential equipment and structure needed by the secondary schools are not there, simply because of the financial constraint on the part of the government.
2. **Misuse of the School Physical Facilities:** School personnel often use the physical facilities in the school in the way they like without given consideration to the efforts initially, geared towards erecting such structures and the economic downturn in the country. Let us consider how students and staffs use school toilets, lecture rooms, libraries and furniture fittings in our technical schools.
3. **Mismanagement Of Maintenance Funds And Materials:** School heads in Nigeria are not left out from this mismanagement acts of siphoning funds meant for the maintenance of the physical structures in the school.
4. **Lack Of Dedication On The Part Of Custodians;** This problem manifests obviously when those in charge of the maintenance of the physical facilities in the school demonstrate poor attitude to work,



lateness to work or even unceremoniously absence from duty. Other problems facing utilization and school plant maintenance in technical schools include:

- (a) Poor maintenance culture
- (b) Management style
- (c) Bureaucratic procedure involved in getting order
- (d) Incessant power failure

### **Conclusion and Recommendation**

Adequate and appropriate physical facilities are very important and indispensable in the educational process. Apart from the fact that they lead to goal attainment, their presence in required number and their adequacy help the teachers to carry out their designated responsibility. However, it needs be emphasised again that it is one thing for the schools to be richly stocked with necessary physical facilities, it is another thing for such facilities to be effectively utilized and maintained. There is nothing good as ensuring that the existing physical facilities are maximally utilized and effectively maintained to keep or restore their longevity.

This paper therefore recommends that:

- Adequate attention should always be given to technical school physical facilities maintenance by the governments, school administrators, teachers and students.
- Government at various levels should come to the aid of technical schools by providing funds to carry out repairs and maintenance of the physical structures.
- Government should provide fund for the purchase of modern physical facilities that are not available, and put in place facilities that are grossly inadequate.
- Technical schools should be encouraged to make insurance cover for the maintenance of physical facilities at the beginning of every academic session.

- The community where the school exists should be involved in the process of maintaining the physical facilities in the schools.
- The custodians of the physical facilities should always be given adequate training and education on the need to keep the physical facilities in good conditions.

With the recommendations above seriously considered, the physical facilities in our technical schools will continue to be in good conditions, maximally utilized and effectively maintained.

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