

## TOWARDS OPTIMAL UTILIZATION OF SCHOOL FACILITIES IN SECONDARY SCHOOLS

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### **Abstract**

*This study deals with the adequate utilization of available educational facilities in secondary schools. The paper focuses school mapping as a means of identifying the appropriate site where educational facilities are to be located. School plants are crucial issue in school administration which places emphasis on the school site, buildings and the equipment used during the process of teaching and learning. These facilities requires a very careful attention aimed at setting up a school network which would meet the future demand for education to enhance the maximum realization of the targets set by National Policy on Education. As a result, this paper focuses on basic facilities and equipment, utilization of facilities and equipments and also carries out a diagnosis of enrolment in relation to school plants utilization. The paper also made some recommendations surrounding the appropriate utilization of school plants towards the attainment of school objectives.*

**Key:** School mapping, school plant, utilization and enrolment

### **Introduction**

School mapping is the dynamic process of identifying the site where educational facilities are to be located. It involves more than the preparation of scale maps with conventional sign showing the location of educational institutions.

School mapping involves the application of thought processes and critical analysis of techniques to foresee what educational institutions are likely to be and what type of educational future a society or community may have by the end of a planning period.

Location of schools is function of school mapping. School mapping is therefore, the process of estimating and diagnosing school requirements and identifying the ideal communities and sites where new schools are to be located and where additional educational resources are to be provided. Chesswas (1969) viewed school mapping as school location planning which is a technique for evaluation of use-efficiency, re-organization and re-distribution of resources

(physical and human) that are required for meeting the current and future needs of education in the society. Location planning is a term often applied to the set administrative policies and procedure that are used in planning, distribution, size and spacing of schools. This involves efficient planning of the site and school resources to ensure greater access and efficient use of the school by the community it served.

### **School plant**

School plant includes the site, the building and the equipment used during the process of teaching and learning. It also embraces permanent and semi-permanent structures as well as items such as machine, laboratory equipment the blackboard and the cleaner tools. To this end school plant means the establishment, the sitting of school through the legal permission under educational policies. It also incorporates the entire processes that embrace both instructional programme and physical planning of school set-up and school sitting.

### **Purpose of school mapping**

The main purpose of school mapping is to set up a school network which would meet the future demand for education. In the context of Nigerian educational system, the essential functions of school mapping is to help realize the targets set by the national policy on education, the highlights which are as follows:

- The provision of compulsory education to include the junior secondary level, thus creating a nine year basic education.
- The provision of free universal basic primary education.
- The extension of higher and other forms of education within the limits of the resources available and the country's economic and social requirement.
- The implementation of educational reforms.
- The improved efficiency in the use of resources. However, a s
  - Provide information on the learning needs of the society.
  - Provide inventory of existing institutional facilities.
  - Reveals the extent of under-utilization or over-utilization of existing educational facilities.
  - Provide guideline for the re-organization of institutional facilities.
  - Supply information on where new facilities are to be erected and could be utilized to the best advantage.

In totality, school mapping aims at identifying locations for the construction of classrooms, laboratories, and workshop and so on, evaluating the use-effectiveness and use-efficiency of facilities, re-organizing and re-distributing facilities and optimizing the use of physical and human resources in educational organization.

### **The need for school plant planning.**

The United Nations Human Rights Declaration Article twenty-six (26), regards education as a right rather than a privilege. However, the constitution of the federal republic of Nigeria (1979) also declared education as a right of all citizens of the country. In order to achieve this goals and objectives, the educational sector needs proper planning. Therefore a good school plant will enable the citizen to explore an environment. The good planning will give them the opportunity to make meaningful choice about what is to be learned, to interact formally with their teachers and one another. Thus it became necessary to plan school plants in order to provide for future expansion since there is need and tendency for population growth.

Moreover, it helps to reflect the background of the geographical area and the objectives in education in general. Planning reduces waste by eliminating unnecessary actions. School plant planning save time since future execution and decisions had already been set, the implementation would not waste time. It also brings about a democratic participation by the citizens. They (citizens) are allowed to criticize, discard or admit the plan as the case may be. However, the following sub-content is going to be discussed in this paper: Basic facilities and equipment, Utilization and Diagnosis of enrolment.

### **Basic facilities and equipment**

Classroom: classrooms constitutes the most important and basic facilities every school must have in abundant. The government of Nigeria in the third National Development Plan 1975- 1980 committed herself to creation in the country of an education system capable of ensuring that every citizen is given full opportunity to develop his intellectual and working capabilities of his own benefit and that of his community. The educational programme for this plan period was sought in a very radical way to transform the educational scene of this country by improving and expanding substantially the existing facilities. The construction of

classroom was seen as the most challenging requirement in view of the universal free primary education scheme which was launched in September 1976. The renovation and remodeling of classroom was also embarked upon by the state's primary education board (SPEB) all over the states of the federation.

The classroom are better constructed and ventilated than old ones in places where new structures are needed.

**Furniture**:-the furnishing of the classroom is the major problem for head teachers, principals and teachers. The old type of furniture commonly found in Nigerian schools is long desk, a combined seat and narrow writing table constructed as one units in 60s which is also common in most Nigerian university today. Each desk was built to seat four to eight pupils, a modification to this model was built to seat two pupils.

The construction of one-chair, one-table for each child was recent in primary and secondary schools. With this classroom furniture, teacher can sit the pupils in circle or in small groups based on the activity. If the room is not congested, the teacher would have the opportunity of moving round the class in order to supervise the work of pupils and to give assistance to individual students who are in need of help.

**School buildings**:- school buildings and education are very closely interwoven and related. Apart from protecting pupils from the sun, rain, heat, cold, the school building represents a learning environment which has a tremendous impact on the comfort safety and performance of students.

Within the building are the classroom and others e.g. hall, library, toilet, dining hall to mention a few. Every building must clearly specified or started what type of educational activity it will house. For instance a school hall is not just an assembly hall, it must be a multipurpose hall which could used for

drama presentation as a physical education room on a rainy day, for team teaching or for an open classroom teaching approach. In urban area where electricity supply is available, the hall can also be used for showing films for watching school television programmes. It can also serve as an exhibition centre for arts and crafts, community must also be allowed to make use of hall during weekend and holidays for meeting and other uses. This will also serve as a means of generating funds for the school.

Moreover flexibility is necessary when designing school buildings so that the building can adapt to serve different instructional purposes.

When planning to construct a new school building, expanding or renovating old school building. Nwagu (1978) opined that the following factors should be put into consideration.

1. The educational use to which the building will be put.
2. Proper ventilation of rooms.
3. Adequate lighting, whether by artificial illumination or natural lighting or both.
4. The qualities of the rooms must be standard, so that sound effects can be effectively controlled.
5. The size and location of the other school building must be borne in mind sitting of other facilities, such as play areas, staff room and housing should be carefully planned. The toilets must be conveniently located in relation to other buildings.
6. They must be economical to operate.
7. The comfort and safety of the user must not be forgotten. The fire and safety law of the country must be observed; as well as the minimum sanitation requirement and recommended number of square meters per pupils must be observed.
8. The numbers of pupils and teachers who will use the building must be considered, bearing in mind the rate

of expansion of school. E.g. U.P.E. of 1976, the free education policy of the U.P.N .states in 1979 brings about great expansion in schools. In totality the building should be pleasing and appealing to the teachers, students, head teachers and community.

**Utilization:**

Most schools are often underutilized. The rate of utilization could be increased either by extending the utilization time or by allowing access to the school equipment and sport equipment by the community. However to measure the utilization of schools and equipment, we make use of various indicators?

1 .The time utilization rate (TUR):-this is the ratio between the number of period during which classroom is used, and the maximum number of period available per-week. For instance every classroom could be used for 7 hours daily and 5 days a week, the classroom is available for use only for 30 hours; then the time utilization rate (TUR)= $30/35 \times 100/1=85.7\%$  though the indicator does not show if the room is used at full capacity in term of space.

2. The space utilization rate (SUR):- this compares the average size of the classes occupying a room and its theoretical capacity. For example, a classroom built for 35 students is occupied on average by only 25 students, the space utilization rate is underutilized  $25/35 \times 100/1 =71.4\%$  that is the space is 28.6% underutilized.

3. The total or global utilization rate (GUR):- this gives the ratio between the number of students hours occupied and the theoretical students hours.

Average number of students attending x  
number of hours of use per-week

GUR number of places available in the classroom theoretical number of hours of use per-week.

That is  $GUR=TUR \times SUR$ .

However the organizational difficulties of the time tabling often make it difficult for schools to attain utilization rate of over 75%. The rate reached varies to type of rooms and size of schools.

**Diagnosis of enrolments:-**

Enrolment patterns remain the most convenient indicator of educational growth.. To assess educational performance of a state, school enrolment ratios, enrolment rates and trend in enrolment are estimated. Since the current Nigerian National Policy on education expects day students to be absorbed by institutions not more than 5 kilometers from their places of residence, there is need to know how to diagnosis pattern of students movement, so as to be able to give professional advice on sitting of new schools and optimal utilization of facilities of the existing ones.

1. *Trends in enrolment:* - there are two ways of calculating trends in enrolment, we can calculate the absolute increase or decrease in enrolment over a give period. So also we can calculate the growth rate of enrolment over the period in question.
2. *Enrolment ratios:-* this is the ratio between the number of students enrolled of a given age and the size of the population in a given age-group. There are three parameter for enrolment ratios:-
  - a. Overall, crude, general /apparent enrolment ratio.
  - b. Level-specific enrolment ratio.
  - c. Age specific enrolment ratio. All this help us to know if the facilities in the school system were optimally utilized.
3. *Rate of enrolment:* - enrolment ratios are indicator of a country's educational performance while enrolment rates tell us about internal efficiency of the school system. There

is need to study this two areas before we can say that the facilities and equipment are utilized very well in school system.

However talking about rate and of enrolment we are talking about the promotion rate, repetition rate and drop-out rate in the school system. By law, there is automatic promotion in Nigeria, but in practice repeating a grade is common. If promotion were really automatic and attendance compulsory, then waste ratio and this would show a seemingly perfect internal efficiency in the system. If we have perfect internal efficiency it means that the facilities and equipment were used maximally.

In conclusion optimal utilization of facilities connote the practice of using a school facility, for example a building for as many purpose as possible, thereby reducing the number of buildings as well as total cost of providing buildings in the school. If school facilities are to be adequately and appropriately utilized, flexibility in the design of facilities is needed. For example, the provision of movable partitions on buildings makes it possible to expand and contract instructional space to meet the demand of various teaching-learning situations.

Moreover, alternative uses to which school facilities could be put should always be explored. School facilities which could be made to serve double or multiple purposes should be use for the purposes. The dining hall for example could be used for holding school assemblies, staging dramas as well as a venue for the community's cultural and recreational activities.

However, Hughes and Ubben (1980) have emphasized, that emphasized, that, in order

to make optimal utilization of facilities in school, 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-used, some will be over used while others will not be used at all.

### **Recommendations**

It is very obvious that the location of a school and the facilities therein has a great role to play in the actualization of the objectives of the school. Educational policy makers, educational administrators and other stake holders in education should realize that the location and the facilities of a school determine the worth of the school. Utmost concretizations and attention should be placed on school mapping and that its facilities so as to create a conducive atmosphere that will enhance effective administration and a defined academic activities.

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