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School Mapping Procedures and Access to Secondary Education in Rivers State

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Abstract

The study examined school mapping procedures and access to secondary education in Rivers State. The researchers adopted correlational research design. Two research questions and two hypotheses guided the study. The population of the study consisted of 1,750 respondents, made up of educational planning staff of the Ministry of Education (MOE) and Senior Secondary Schools Board (SSSB) in Rivers State. The sample was 175 which is 10% of the population. The instrument of data collection was a self designed questionnaire by the researcher tagged "School Mapping Procedures and Access to Secondary Education Questionnaire" (SMPASEQ). The instrument was validated using face and content validity by experts from the Department of Educational Planning and the Department of Measurement and Evaluation, with a reliability of 0.890. Findings showed that geographical and demographical school mapping to a high extent influence access to senior secondary education in Rivers State. The study concluded that geographical and demographical school mapping is fundamental and influences students' access to senior secondary education as such it should be handled effectively to encourage formal education and discourage school dropout. It was recommended among other things that government and educational planners should ensure that schools and educational facilities are located by following geographical and demographical procedures to meet the needs of the community.

Keywords: School mapping, Mapping procedures, Secondary education, Access to education.

INTRODUCTION

Education remains a determinant factor for personal, societal and national development. It has been described by many scholars as being vital to the process of improving the productive capacity of individuals and the socio-economic development of a nation's economy. The

provision of education is therefore crucial towards producing literate citizens needed to develop the nation particularly secondary education given its objectives which are aimed towards building individuals identify their skills, thereby developing a future career based on their skills and talents. It is at the level of secondary education that many students also acquire knowledge and skills for life, as this level also serves as a bridge between primary and secondary education.
Okoroma (2005) observed that Nigeria as a member of the global community accepted the Universal Declaration of Human Rights which guarantees equal educational opportunities for all. Consequent upon this, the National Policy on Education Federal Republic of Nigeria (FRN, 2014) identified that every Nigerian child shall have a right to equal educational opportunities irrespective of any form of disabilities; provision of equal access to educational opportunities; and access to secondary and tertiary levels both inside and outside the country. To ensure that this goal is achieved, there is need for an efficient system that can help in analyzing the current state of education and its progress as a system that can support in decision making and policy framing.

Okeke (2001) described access to secondary education as a means of providing free and unlimited opportunities to obtain knowledge, skills and abilities available at the secondary level of education to optimally participate and contribute to development of the individual and society. Okeke (2001) further identified it as educational access comprising of school enrolment attendance and completion of any educational level. Hence lack of access to education means: failure to enroll in secondary education institutions; lack of opportunity to attend school regularly; and the inability to complete the secondary education programme. In this era of knowledge explosion, everyone desires to be educated as education is key to emancipation of an individual and the society from the shackles of illiteracy and poverty. The essence of location of secondary schools in a particular area therefore is to create secondary school access to the people in that area. Ibara (2011) opined that existing school facilities are not adequate for students hence the need for school mapping to ensure that schools are closely accessible to students.

Nnokam (2018) posited that school mapping is a micro planning exercise that seeks to match the supply of, and demand for education. It is a procedure that estimate future educational needs and work out what is required to have those needs met. According to Akpakwu (2012), school mapping is a set of techniques and procedures used in identifying future educational needs that are to be located in a particular community or geographical area. Sabir (2013) further posited school mapping as a dynamic process of identifying logically and systematically the communities and sites where educational facilities provided in a plan are to be located and sited.

The aim of school mapping is to improve the quality, quantity and efficiency of education, as school mapping sees that plans reached at the national levels are implemented at the grassroot levels of a country. They are able to identify current inadequacies in distribution patterns and appropriate techniques and thought processes and policy decisions which requires continuous collection of data, analysis of data which will lead to updating inventory of facilities to actually know what ought to be where.

Geographical School Mapping Procedure

One of the most important activities in school mapping is correcting any geographical imbalance in locating learning institutions (Adiele et al. 2017). This imbalance can be in the topography, habitation structure and even geographical seasons in a community. There are cases where schools are located far away from people's settlement and students will have to travel a long distance to access schools, in some cases students will need to travel across rivers and creeks despite the hazards associated with these in order to access educational facilities. The enrolment rate in such schools is usually very low as many find it difficult to access these schools.

In planning the location of schools, it is important to take into consideration the habitation structure of the community for instance clustered, dispersed or linear settlements to ensure schools are located closer to homes for easy access to educational facilities. The geographical terrain of the community whether it be mountainous, swampy, deserts or floody should be considered to ensure safety of learners to and from school. Schools should not be sited in areas that are prone to flood or erosion. Road networks and distance covered to school are to be considered to ensure students are able to trek to school and that little or no extra cost is incurred to attend school. Provision of an ideal physical layout or site plan for secondary schools taking into consideration the suitability of the geographical location and cost effectiveness in terms of the number of people or communities which the school would serve; Choice of location where schools should be sited in terms of educational needs and aspirations of the communities it serves will guarantee access to secondary education to a very large extent.

Demographic School Mapping Procedure

The population a school should serve is a basic requirement for school mapping therefore obtaining accurate and reliable data is key in carrying out the school mapping exercise. In demographic school mapping procedure the secondary school age population distribution, the growing rate, gender mix and the population of rural-urban migration or urban-rural migration is considered.

More schools are to be located in areas that have more concentration of the population in order to reduce the distance to be covered to and from school by a greater percentage of the population. The age distribution also helps to know how many children are of secondary school age and by their growing rate forecast how many children will be of secondary school age in years to come. This is to determine appropriate structural facilities in line with secondary school peculiarity, the number and age range of the students that it would serve as well as other specifications with regard to security, human health and aesthetic values that will be required to serve the students. It also helps to determine appropriate facilities and equipment's necessary for secondary education with regard to the nature and kind of educational activities and programmes offered in secondary schools which also involves rational location, re-location, arrangements and logistics of equipment's facilities of professional advice and suggestions on possible rationalizations or merger of secondary schools or on joint use of school facilities so as to maximize resources, reduce waste and also promote optimal utilization of resources.

STATEMENT OF THE PROBLEM

Senior secondary education continues to be a very important aspect of education given that it is at this level of education that students are given the opportunity to write external examinations which give them access to higher education. The knowledge, skills, values, and traits which a student acquires at this stage will complement those acquired at the primary and junior secondary school levels. Hence the need for educational planners to ensure that senior secondary schools are geographically and demographically located at strategic areas of the state, local government areas and wards to give interested parents and students access to formal secondary education. It is in this vein that the researchers attempt to investigate the influence geographical and demographical school mapping has on students access to senior secondary education in Rivers State.

AIM AND OBJECTIVES OF THE STUDY

The study evaluated what school mapping procedure applied in secondary schools in Rivers State. The study specifically sought to determine;

1. The extent geographic school mapping procedures influence access to senior secondary education in Rivers State.
2. The extent demographic school mapping procedures influence access to senior secondary education in Rivers State.

Research Questions

1. To what extent does geographic school mapping procedure influence access to senior secondary education in Rivers State?
2. To what extent does demographic school mapping procedure influence access to senior secondary education in Rivers State?

Hypotheses

$H0_1$: There is no significant relationship between geographic school mapping procedure and access to senior secondary education in Rivers State.

$H0_2$: There is no significant relationship between demographic school mapping procedure and access to senior secondary education in Rivers State.

METHODOLOGY

The study adopted correlational research design. The design enabled the researcher to establish the relationship between the variables involved in the study. The target population of the study consisted of 1,750 respondents, made up of educational planning staff of the Ministry of Education (MOE) and Senior Secondary Schools Board (SSSB) in Rivers State. The sample was 175 which is 10% of the population. The instrument of data collection was a self-designed questionnaire by the researcher tagged “School Mapping Procedures and Access to Secondary Education Questionnaire” (SMPASEQ) which consist of 10 items constructed on a 4 point likert

scale of Very High Extent (VHE) = 4.0, High Extent (HE) = 3.0, Low Extent (LE)= 2, and Very Low Extent (VLE) = 1.0. The instrument was validated using both face and content validity from experts of the Department of Educational Planning and Measurement and Evaluation. The reliability coefficient was 0.890. One hundred and seventy-five (175) questionnaires were distributed to the respondents, with only 132 retrieved. Research questions were answered using mean and standard deviation while hypotheses were tested using Pearson product moment correlation (PPMC) at 0.05 level of significance.

Results

Research Question 1: To what extent does geographical school mapping procedure influence access to senior secondary education in River State?

Table 1: Extent of Geographic School Mapping Procedure to Access to Senior Secondary Education

S/no	Items	N	Mean	SD	Remark
1.	School environment influence access to senior secondary education	132	3.06	.805	High extent
2.	The structure of the school influence access to senior secondary education	132	3.00	.906	High extent
3.	Distance covered to school influence access to senior secondary education.	132	3.14	.774	High extent
4.	Good road network influence access to senior secondary education.	132	3.23	.884	High extent
5.	Schools located in urban areas influence access to senior secondary education	132	3.57	.859	High extent
	Grand total	132	**3.20**	**.845**	High extent

Table 1 shows mean responses of respondents on the extent to which geographic school mapping procedures influence access to senior secondary education in Rivers State. Results show that all the respondents indicated that to a high extent all the items listed influence access to senior secondary education. The results further shows that schools located in urban areas most influences access to senior secondary education with a mean score of 3.57; while the structure of the school least influences access to senior secondary education with a mean score of 3.00. The grand mean score of 3.20 therefore indicate that geographical school mapping procedures to a high extent influence access to senior secondary education in Rivers State.

Research Question 2: To what extent does demographic school mapping procedure influence access to senior secondary education in Rivers State?

Table 2: Extent of Demographic School Mapping Procedure to Access to Senior Secondary Education

S/no	Items	N	Mean	SD	Remark
1.	The population of the school influence access to secondary education.	132	3.24	.725	High extent
2.	The number of secondary schools sited in the community influence access to secondary education.	132	3.14	1.172	High extent
3.	The belief system of the people influence access to secondary education.	132	2.85	.760	High extent
4.	Gender equality in location of schools influence access to secondary education.	132	2.82	.813	High extent
5.	Age distribution of students influence access to secondary education.	132	2.51	.925	High extent
	Grand total	132	**2.91**	**.879**	High extent

Table 2 shows mean responses of respondents on the extent to which demographic school mapping procedures influence access to senior secondary education in Rivers State. Results show that all the respondents indicated that to a high extent all the items listed influence access to senior secondary education. The results further shows that the population of the school most influences access to senior secondary education with a mean score of 3.24; while age distribution of students least influences access to senior secondary education with a mean score of 2.51. The grand mean score of 2.91 therefore indicate that demographic school mapping procedures to a high extent influence access to senior secondary education in Rivers State.

Test of Hypotheses

$H0_1$: There is no significant relationship between geographical school mapping procedures and access to senior secondary education in Rivers State.

Table 3: Pearson Correlation on the Relationship Between Geographical School Mapping and Access to Senior Secondary Education

Variables	N	Mean	Std.	df	r	Sig	Decision
Geographical school mapping procedure.	132	3.20	.845	130	0.349	0. 000	Significant
Access to secondary education in River State.	132	3.01	.852				

Table 3 shows the Pearson correlation value 0.349 and a significant value of 0.000. Pearson correlation value of 0.349 indicate a low positive relationship between geographical school mapping and access to senior secondary education, while the significant value of 0.000 which is greater than the significant level of 0.05 indicate a significant relationship between geographical school mapping and access to senior secondary education. Therefore, the null hypothesis is

rejected and the alternative hypothesis retained that there is a significant relationship between geographical school mapping procedures and access to senior secondary education in Rivers State**.**

$H0_2$: There is no significant relationship between demographic school mapping procedure and access to secondary education in River State

Table 3: Pearson Correlation on the Relationship Between Geographical School Mapping and Access to Senior Secondary Education

Variables	N	Mean	Std.	df	r	Sig	Decision
Demographical school mapping procedure.	132	2.91	.879	130	0.508	0.000	Significant
Access to secondary education in River State.	132	3.01	.852				

Table 3 shows the Pearson correlation value 0.508 and a significant value of 0.000. Pearson correlation value of 0.508 indicate a moderate positive relationship between demographical school mapping and access to senior secondary education, while the significant value of 0.000 which is greater than the significant level of 0.05 indicate a significant relationship between demographical school mapping and access to senior secondary education. Therefore, the null hypothesis is rejected and the alternative hypothesis retained that there is a significant relationship between demographical school mapping procedure and access to senior secondary education in Rivers State**.**

DISCUSSION OF FINDINGS

Analysis on the extent geographical school mapping procedures influence access to senior secondary education showed that there was a high extent of influence between geographical school mapping and access to senior secondary education in Rivers State. Results on the test of hypothesis revealed a low significant relationship between geographical school mapping and access to senior secondary education in Rivers State. Fabiyi and Sule (2015) agree with this study in their assessment that geographical factors of school mapping has a significant relationship with access to school as it is the first step in the diagnosis to check the situation of institutional network.

Analysis on the extent demographical school mapping procedures influence access to senior secondary education showed that there was a high extent of influence between geographical school mapping and access to senior secondary education in Rivers State. Results on the test of hypothesis revealed a moderate significant relationship between demographical school mapping and access to senior secondary education in Rivers State. This study is in line with the study of Galabawa et al. (2002) who found that school mapping impacted on the development of education in terms of increased enrolment and decreased incidence of school

dropout indicating that demographic school mapping has a positive relationship with access to education.

CONCLUSION

The study concluded that school mapping activities helps to identify the most appropriate location of schools so that more students can benefit from educational investment, as this ensures that educational opportunities are equalized for all through well planned distribution and re-distribution of educational facilities in new and existing schools. Therefore, educational planners should ensure that geographical and demographical school mapping procedures are effectively utilized to ensure that education can be made accessible to all, irrespective of age, gender, economic status, ethnic group, etc to improve access to education whilst reducing educational wastage.

RECOMMENDATIONS

Based on the results the following recommendations were made:

1. Education planners should ensure that geographical procedures are followed in the location of schools.
2. Education planners should ensure that demographical procedures are followed in the location of schools.
3. Access to school is a fundamental right of the Nigeria child as such all measures to encourage this should be adopted to increase the desire for formal education as well as reduce school dropout.

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