

Politics of School Mapping: Evaluation of Spatial Distribution of Public Secondary Schools in Rivers State, Nigeria.

Abstract

School mapping in secondary education has witnessed a lot of distortion in Nigeria largely because the allocation of educational resources is embedded in politics of education. Consequently, the paper examined trends in the politics of school mapping and spatial distribution of secondary schools in Rivers state. Three research questions guided the study. The document analysis research method was utilized which involved extensive analysis of records and documents. Data collected were descriptively analysed. Findings revealed spatial imbalance in the distribution of public secondary schools, and neglect of population factor in siting secondary schools in Rivers State. Recommendations aimed at enhancing even distribution of public secondary schools were proffered. The paper concluded that school distribution system that ignores basic school mapping process could undermine the overall educational development in Rivers State.

Keywords: Politics; school mapping; evaluation; distribution; secondary schools: Public.

Introduction

The politics of school mapping has to do with the use of political power in the distribution of school facilities in various schools in a state or country (Nwakpa, 2015). Nevertheless, the overall development of education in any given society to a large extent depends on the level to which there is an equitable distribution of educational resources and opportunities. School mapping is a planning tool applied by educational planners and policymakers to ensure that schools, teachers, and

28 facilities needed for the promotion of quality education are provided and
29 distributed equitably across the state or country. The application of school mapping
30 is, however, embedded in the politics of education in Nigeria. The political class
31 appears to have the final say on which part of a state or country should have more
32 schools, what type of schools, at what level, and when they are to be established
33 (Boles, 1995).

34 The purpose of school mapping includes, but not limited to the following

- 35 • It assists in analyzing the existing pattern of distribution of educational
36 facilities among different geographical areas to identify locations for new
37 schools. Thus, without school mapping schools would be haphazardly
38 located without consideration for the needs of the populace (Albert, 1991).
- 39 • School mapping examines the facilities available in existing schools and
40 determines if there are existing imbalances between school requirements and
41 planning in an area. In this regard, school mapping helps to identify areas
42 that have an excess number of schools and areas not yet covered. This
43 implies that if school mapping is professionally applied, it will save the
44 government from the unnecessary expenditure of investing in the
45 construction of schools where there are no real needs for them.

- 46 • School mapping is an assertive tool in the rationalization of schools and
47 educational facilities (Varghese & Bisval, 1999). To this end, it helps the
48 government and other stakeholders in the prudent allocation and use of
49 scarce educational resources.
- 50 • The purpose of school mapping is to set up a school network, that will meet
51 in the most efficient and equitable manner the present and future demands of
52 education. Thus, school mapping when properly applied eliminates
53 disparities in geographical areas, taking into consideration the school size,
54 pupil-teacher ratio, transition rates, enrolment rates and promotion rates
55 (Oyedeji, 2001)
- 56 • School mapping ensures that educational institutions are sited at their most
57 advantageous locations. That is, advantages from the point of accessibility to
58 the students and full utilization of educational resources (Uwazuruike,
59 1991).

60 Arising from the above, it is obvious that school mapping is a dynamic process of
61 planning the distribution, size, and spacing of schools and facilities needed.
62 Furthermore, it is an essential planning tool, to address possibilities of spatial
63 inequalities in the provision of educational facilities.

64

65 **Statement of the problem**

66 School mapping more than ever before has become a critical aspect of educational
67 management in Rivers State. This is because errors in school mapping could result
68 in a serious imbalance in the educational development of Rivers State (2010).
69 Rivers State is the fifth most populous State in Nigeria, with a population figure of
70 5,185,400 (National Population Commission, 2006). It is also the most dynamic
71 State in Nigeria, having the advantage of the heavy presence of oil and gas related
72 industries. Accordingly, there is an increase in the influx of people into the State
73 from neighbouring States and outside Nigeria. Thus, with the increase in
74 population, the demand for secondary education is very high.

75 In spite of the existence of 245 public secondary schools in Rivers State there are
76 palpable concerns that the existing schools are seemingly not evenly distributed
77 across the State to accommodate the demand for secondary education. To this end,
78 it is important for educational managers, political authorities, and other
79 stakeholders to have a clear understanding of what school mapping entails.
80 Moreover, the central aim of school mapping is to ensure equitable distribution of
81 educational resources in a state or country. The study, therefore, is an attempt to
82 investigate the extent to which public secondary schools are evenly distributed
83 among Local Government Areas in Rivers state.

84 **Purpose of the Study**

85 This study evaluated the spatial distribution of public secondary schools in Rivers
86 State, Nigeria. However, the study was aimed at the following specific objectives:

- 87 1. Determine the distribution pattern of public secondary schools in Rivers
88 State.
- 89 2. Determine the distribution of public secondary schools in upland and
90 riverine geographical areas in Rivers State.
- 91 3. Determine the role of population size in siting public secondary schools in
92 Rivers State.

93 **Research Questions**

94 The following research questions guided the study

- 95 1. What is the distribution pattern of public secondary schools in Rivers State?
- 96 2. How are public secondary schools distributed in upland and riverine
97 geographical areas of Rivers State?
- 98 3. What is the role of population size in siting public secondary schools in
99 Rivers State?

100 **Review of Related Literature**

101 This aspect of the paper presents review of related literature as follows :

102 Theoretical Framework

103 The theoretical framework of the study is anchored on the social demand approach
104 to educational planning. The social demand approach is the aggregate popular
105 demand for education, meaning the sum total of individual demands for education
106 at a given place and time under prevailing cultural, political and economic
107 circumstances (Coombs, 1974). The social demand approach is the most popular
108 approach among educational planners (Adesina, 1981). Politicians resort to this
109 approach as they find other models of education planning politically difficult to
110 defend. Nwankwo (1981) affirms that social demand approach favours those who
111 recommend free and compulsory education as a means for egalitarian and
112 permissive society. According to him, politicians who respect public opinions or
113 regard satisfaction of public demand as a key to political advancement prefer this
114 approach. The social demand approach provides that access to all levels of
115 education should be available to all those wishing to gain admission. Thus, it is
116 based on the principle that everyone who qualifies by ability and attainment should
117 pursue full time course in education (Akabue, 1991).

118 According to Uwazuruike (1991) social demand approach has two dimensions, one
119 is determined by government policy, for instance in Nigeria, the Universal Primary
120 Education (UPE) programmes of the 1950s and 1976 represented public demand.
121 To this end, demand for education was high and determined along demographic

122 and social considerations. The educational policy of compulsory school attendance
123 for pupils of a given age cohort does not represent private or voluntary demand for
124 education, which is the other dimension. Factors that affect private demand for
125 education relates to the cost of education to students and parents, not merely the
126 cost implications, but the opportunity costs of income forgone (Coombs, 1970).

127 Relating social demand approach to the study. Politicians utilizing the social
128 demand approach, which holds that access to all levels or types of education
129 should be available to all those who are qualified for it and express willingness to
130 acquire it, establish some schools on political grounds to meet the expectations of
131 the people. Thus, rather than site schools based on school mapping criteria, schools
132 are often sited based on political sentiments. The result is that schools could be
133 over concentrated in certain localities to the detriment of others. What is more,
134 there could be more schools in operation than the real need of the people.
135 Corroborating this view, Arinze (1991) noted that many primary and secondary
136 schools arbitrarily established in Nigeria proved to be unviable in the long run, and
137 had to be phased out or reorganized by successive governments.

138 **The Concept of School Mapping**

139 School mapping is an essential tool to the micro-planning of school locations, and
140 originated from France (Caillods & Heyman, 1982). School mapping is often

141 confused or interchanged with school map. It is pertinent to note that school
142 mapping is not the same as a school map. More, than simply being a tabular,
143 graphical, or cartographical representation of a place, school mapping is used to
144 investigate and ensure the equitable distribution of educational resources within
145 and between school systems (Ibara, 2011 and Caillods, 1982). School mapping has
146 also been described as the process of setting a school network, that will meet the
147 present and future educational demands of the society in a most efficient manner
148 (Oyebade, 2009). Hallack (1977) described school mapping as part and parcel of
149 the educational planning process for determining where schools should be sited in
150 order to provide the greatest benefit to the society. It is a process of planning the
151 location and spacing of educational institutions taking into consideration the
152 demographical , pedagogical, geographical, and economic and manpower factors
153 (Igwe, 1998 and Vargnese, 1997). The main objective of school mapping is to
154 identify the most appropriate locations of schools, and to ensure the efficient and
155 equal distribution of resources within and between school systems, especially in
156 times of large scale reforms or a major expansion of an educational system
157 (Caillods, 1982). Thus, school mapping is an essential planning tool to overcome
158 possibilities of lopsided distribution of educational resources across regions. Also,
159 it aims at the identification of locations for the construction of school facilities and
160 optimization of the use of human and material resources in education.

161 **Factors to consider in school mapping**

162 School mapping is an educational planning tool aims at setting up a school network
163 that meets in the most efficient and equitable manner the future demand of
164 education. In determining the future school map, it will be necessary to consider
165 some factors as follows:

166 **Demographic factors**

167 These are factors that pertain to characteristics of population dynamics such as
168 birth rate, mortality rate, social structure, migration and immigration rate, school
169 drop outs and retention rates. School mapping makes use of demographical data to
170 redefine the school network.

171 **Pedagogic factors**

172 These factors relate to consideration of the normal period of utilization of school
173 buildings or sites, weekly timetable, class sizes, the possibility of double shifts,
174 consideration for availability or suitability of the area for special teaching facilities.
175 For instance, it may be relevant to establish a department of fisheries in a riverine
176 location. In this manner, facilities for practical teaching can be easily available.

177 **Manpower factors**

178 These factors involve the consideration of teaching force or skills in a particular
179 area. This implies that the type of occupation or skills predominant within an area
180 can influence the type of school that may be located in that area.

181 **Social factors**

182 These relate to the use of school mapping to satisfy the social demand of
183 education. This means that the socio-cultural outlook of a community should be
184 considered. For instance, rapid migration of people from rural to urban areas. In
185 this regard, the government could use its policy on school mapping to discourage
186 rural-urban migration. This can be achieved by establishing social amenities
187 especially schools in rural areas.

188 **Geographical factors**

189 These factors consider the possibilities of students having access to school,
190 transportation system, road network, topography of the area. Government may also
191 use its policy on school mapping to attract high population density into an area. For
192 instance, the siting of Federal College of Education (Technical) in Omoku , Rivers
193 State , has attracted a large number of people from within and outside Rivers state.

194 **Economic factors**

195 These factors have to do with the cost of establishing or maintaining a school.
196 These factors require cost-effectiveness in running's schools and economic
197 benefits that will accrue to such areas.

198 **Catchment Area factor**

199 This factor relates to the geographical area from which the school gets learner or
200 the geographical area it serves. The essence for the siting of schools with respect to
201 catchment area is that there will be a school close to every learner's home and that
202 the learner will by choice attend that school. Thus, if the catchment area is properly
203 captured in school mapping the distance between home and school in each case
204 will be short and could save time and expenses for learners and parents.

205 **Population factor**

206 Population distribution is a factor for school mapping. This factor relates to spatial
207 pattern of population distribution. Applying school mapping principles schools
208 should be located in areas with high population density in order to have enough
209 school children (Nwakpa, 2015). If this factor is neglected in siting of schools, it
210 may result into a situation where many schools exist but with few students. The
211 implication is that school building and facilities are under-utilized.

212 **Politics of school mapping**

213 A good school mapping concept ensures even distribution of schools. The even
214 distribution of schools across regions, communities and states cannot be

215 overemphasized as access to school and regular school attendance is improved
216 upon (Adaja & Osagie, 2015). Nevertheless, this distribution is hampered when
217 politics is taken into consideration in siting new secondary schools. The result of
218 politics in school mapping is over-concentration of institutions in some localities
219 while in others schools are sparsely distributed. The over-concentration of schools
220 in some places, may not be unconnected with political considerations, given rise to
221 the location of schools close to the abode of politicians in control of power. In
222 Nigeria like most other developing countries political parties and candidates use
223 education and provision of school facilities as tools to woo prospective voters, but
224 after winning election most schools are sited arbitrarily to suit their whims and
225 caprices. Politics has had a great influence in the siting of schools in Nigeria. This
226 is because educational policies are made and supervised by politicians. It is
227 commonly observed that only areas or localities loyal to political parties are
228 provided with meaningful educational facilities, or have existing facilities
229 adequately maintained. The teaching workforce is not spared of politics, for
230 example, the distribution of secondary school teachers in Rivers State is not devoid
231 of political interference (Ibara, 2006).

232 Thus, the problems in education in recent times could be associated with politics,
233 ethnicity, and god fatherism factors in Nigeria. To this end , political
234 considerations among others, determines who gets what, when and how (Olaniyan

235 & Anthony, 2013), This ugly development in education affects fair distribution of
236 educational resources in Nigeria. According to Nwadiani (2010) the location of
237 schools is an important aspect of education activity and not a mere political game
238 as is presently the situation in Nigeria. According to him, when the basic factors to
239 be considered in location of schools are ignored it could generate undesirable
240 consequences such as :

241 **Wastage of educational resources**

242 When the topography of a learning institution is not considered, like the case of
243 areas prone to flood or marshy terrains it may lead to the abandonment of such
244 schools, with resultant wastage of educational resources.

245 **Unequal access**

246 Accessibility is usually hampered by time. This is because with time, human
247 settlements develops and grows. Thus, in the event educational institutions are not
248 sited to meet the need of population increase, the institutions that were not
249 accessible before become accessible for some people, creating inequality in access.

250 **Increase in cost of education**

251 When the siting of educational institutions are well planned it tends to increase the
252 cost of education on the part of the learner. For example, if the catchment area is
253 not considered in siting schools , the learner will spend more getting to the school.

254 **Challenges of school mapping in Nigeria**

255 School mapping in Nigeria has several challenges that include :

256 • **Political consideration**

257 Some schools both at primary and secondary levels are sited on the basis of
258 political sentiments. For instance, some secondary schools are located in
259 remote inaccessible areas merely to score cheap political points with the
260 facilities in such schools grossly under utilized (Ibara, 2008). In a related
261 development, Manga & Nakazalle (2015) observed that some state
262 governments such as Kebbi State, sited a University of Science and
263 Technology at the Governors village at Aliero, despite contrary advice.

264 Also, his successor moved the Kebbi State Polytechnic from the State capital
265 to his village in Dakin Gari, probably for re-election bid. The same arbitrary
266 school mapping procedure appears to be the norm in other states in Nigeria.

267 • **Inadequate database**

268 The use of data that is reliable and accessible is the bedrock of school
269 mapping. However, for political reasons educational statistics are prone to
270 manipulation (Uwazuruike, 1991)

271 • **Lack of consultative forum.**

272 Political office holders in most states of Nigeria hardly engage in wide
273 consultations with relevant stakeholders, whose input is supposed to

274 contribute to effective school mapping. According to Castaldi (1977) wide
275 consultations in school mapping activities minimize the tendency for errors
276 and wrong decisions.

277 • **Lack of principle of equity**

278 A major aim of school mapping is to ensure even distribution of educational
279 resources across the states. This principle seems to be ignored or thrown into
280 winds, resulting in lopsided distribution of educational facilities across and
281 within regions (Ibara, 2006b). The implication is that some communities
282 have more schools to the detriment of others.

283 • **Statistical constraint**

284 Nigeria has not completely resolved the problem of a national census figure,
285 despite efforts in the past ranging from 1963 to present. The issue of
286 accurate census figure is still contentious. School mapping requires reliable
287 statistical data bank, in which planning must be based. False population
288 figures could affect projections, and thus a major constraint to school
289 mapping in Nigeria

290 **The constraint of manual operations**

291 School mapping activities in Nigeria is dominated by the use of manual
292 methods of operation. The use of modern management information system
293 (MIS) and integration of geographical information system (GIS) are yet to

294 gain grounds. Computerized information facilitates the work of planners in
295 data processing, storage and retrieval. Yako (2001) noted that school
296 mapping in Bangkok emphasize the applications of geographical
297 information system (GIS). This means that school mapping in Nigeria
298 should go beyond chalk and pencil programming.

299 **The planning process constraint**

300 There is tendency for school mapping plan to be inverted or adjusted to suit
301 the implementers, when this happens the original intent of the planners may
302 be affected to the detriment of effective realization of school mapping
303 objectives (Akabue, 1991). Politicians often deliver manifestoes promising
304 laudable projects and services to the people even when not sure of sources of
305 fundings such projects. These politicians on winning election try to
306 implement some of their electioneering promises, and in the process, they
307 interfere with the original objectives of educational plans. Poor plan
308 implementation often leads to the failure of education plans (Adesina, 1981).

309 **Manpower constraint**

310 Nigeria like most third world countries lack qualified educational planners.
311 Often times untrained planners carry out the functions of professionally
312 trained educational planners in government establishments. (Uwazurike,
313 1991). This development distorts the focus of the school mapping process.

314 Thus, a well-conceived school mapping task may fail, if the right type and
315 quantity of manpower are not available to implement the plan.

316 **Methodology**

317 The study utilized document analysis research method. The study employed
318 document analysis because it was a systematic, carefully planned and objective
319 examination of current records or documents as sources of data (Okeke, 1995).
320 Also, content or document analysis is a research method applied to written or
321 visual materials for the purpose of identifying specified characteristics of the
322 materials (Ary, Jacobs & Razavieh, 2012). To this end, the researcher collected
323 data from the Rivers State Ministry of Education, National Population
324 Commission and library resources. Based on the data collected and analyzed
325 inferences and conclusion were drawn. The study was carried out in Rivers
326 State , a State located in the Niger Delta Region of Nigeria . The State covers a
327 land area of 11,077 km² and has its capital in Port Harcourt. It has upland and
328 riverine geographical areas with 45% of the State riverine. Rivers State has a
329 population figure of 5, 185, 400, 23 Local Government Areas , 4442 poll units,
330 319 wards , 3 Senatorial Districts , 13 Federal Constituencies and 32 State
331 Constituencies (National Population Commission, 2006). The state has about
332 245 public secondary schools (Rivers State Ministry of Education, 2010).

333 **Results**

334 Research question one

335 What is the distribution patter of public secondary school in Rivers State?

336 Table 1: Distribution of public secondary schools in Rivers State by Local
337 Government Areas

s/no	LGA NAMES	N=245. NO OF SCHOOLS	RANKS ORDER	%
1	Abua/Odual	11	7 th	4.49
2	Ahoda East	12	6 th	4.88
3	Ahoda West	13	5 th	5.31
4	Andoni	10	8 th	4.08
5	Asari-Toru	11	7 th	4.49
6	Bonny	4	10 th	1.63
7	Degema	12	6 th	4.88
8	Eleme	6	9 th	2.45
9	Emohua	19	2 nd	7.76
10	Etche	19	2 nd	7.76
11	Gokana	12	6 th	4.88
12	Ikwerre	13	5 th	5.31
13	Khana	22	1 st	8.98
14	Obio/Akpor	16	3 rd	6.53
15	Ogu/Bolo	3	11 th	1.22
16	Okrika	6	9 th	2.45
17	Omuma	3	11 th	1.22
18	Ogba/Egema/Ndoni	15	4 th	6.12
19	Opobo/Nkoro	3	11 th	1.22
20	Oyigbo	4	10 th	1.63
21	Port Harcourt	15	4 th	6.12
22	Tai	10	8 th	4.08
23	Akuku-Toru	6	9 th	2.45
	Total	245		

338

339 Analysis shows that Emohua & Etche local Government Areas (LGAs) have
 340 19 public secondary schools each , representing 7.76% respectively of the total
 341 number of public secondary schools in Rivers State. Also, Oyigbo and Bonny
 342 Local Government Areas have 4 public secondary schools each, representing
 343 1.63% respectively of the total number of public secondary schools in Rivers
 344 state. The analysis equally indicates that the total number of public secondary
 345 schools in five Local Government Areas, namely, Ogu/Bolo (3-schools,
 346 1.22%), Bonny (4 schools, 1.63%), Omuma (3 schools, 1.22%), Opobo/Nkoro
 347 (3 schools, 1.22%) and Oyigbo (4 schools, 1.63%) are less than the number of
 348 secondary schools in one LGA , namely , Khana Local Government Area (22
 349 schools, 8.98%). Thus, a wide disparity exists among the Local Government
 350 Areas in the distribution of public secondary schools in Rivers State

351 Research Question Two

352 How are public secondary schools distributed in upland and riverine areas of
 353 Rivers State?

354 Table 2: Distribution of Public Secondary Schools by Upland and Riverine
 355 local Government Areas.

s/n	Upland LGAs	N=2.45 No. of Schools	%	Rank Order	Riverine LGAs	No of Schools	%	Rank order
-----	-------------	--------------------------	---	------------	---------------	---------------	---	------------

1	Abua/Odual	11	4.49	7 th	Andoni	10	4.08	3 rd
2	Ahoada East	12	4.88	6 th	Asari-Toru	11	4.49	2 nd
3	Ahoada West	13	5.31	5 th	Bonny	4	1.63	5 th
4	Ogba/ Egbema/ Ndoni	15	6.12	4 th	Degema	12	4.88	1 st
5	Eleme	6	2.45	9 th	Ogu/Bolo	3	1.22	6 th
6	Emohua	19	7.76	9 th	Okrika	6	2.45	4 th
7	Etche	19	7.76	2 nd	Opobo/Nkoro	3	1.22	6 th
8	Gokana	12	4.88	6 th	Akuku-Toru	6	2.45	4 th
9	Ikwerre	13	5.31	5 th				
10	Khana	22	8.98	1 st				
11	Obio/Akpor	16	6.53	3 rd				
12	Omuma	3	1.22	11 th				
13	Oyibo	4	1.63	10 th				
14	Port Harcourt	15	6.12	4 th				
15	Tai	10	4.08	8 th				
	Total	190	77.55			55	22.45	

356

357 Table 2, reveals that are 15 local Government Areas in upland, and 8 local
358 Government Areas in the riverine areas of Rivers State. From the data presented
359 in table 2, there are 190 public secondary schools in upland areas, and 55 public
360 secondary schools in riverine Local Government Areas in Rivers State. Further
361 analysis indicates that 77.55% of public secondary schools are sited in upland
362 local Government Areas of Rivers state , while 22.45% are sited in riverine
363 Local Government Areas of the State. Thus, 190 public secondary schools
364 corresponding to 77.55% are located in upland local government Areas of the

365 State, while 55 public secondary schools representing 22.45% are sited in the
 366 riverine LGAs of the State.

367 **Research Question Three**

368 What is the role of population size in siting public secondary schools in Rivers
 369 State.

370 Table 3: Population of Rivers State by local Government Areas and number of
 371 schools.

s/n	Name of LGA	No of Schools	Population	Rank Order	Area (KM)	Administrative Capital
1	Port Harcourt	15	541,115	1 st	109	Port Harcourt
2	Obio/Akpor	16	464,789	2 nd	260	Rumuodumanya
3	Okrika	6	222,026	9 th	222	Okrika
4	Ogu/Bolo	3	74,683	22 nd	89	Ogu
5	Eleme	6	190,884	14 th	138	Ogale
6	Tai	10	117,797	20 th	159	Sakpenwa
7	Gokana	12	228,828	8 th	126	Kpor
8	Khana	22	294,217	3 rd	560	Bori
9	Oyigbo	4	122,687	19 th	248	Afam
10	Opobo/ Nkoro	3	151,511	18 th	130	Opobo
11	Andoni	10	211,009	12 th	233	Ngo
12	Bonny	4	215,358	11 th	642	Bonny
13	Degema	12	249,425	7 th	1,011	Degema
14	Asari-Toru	11	220,100	10 th	113	Buguma
15	Akuku-Toru	6	156,006	5 th	1,443	Abonema
16	Abua/Odual	11	282,988	5 th	704	Abua
17	Ahoda West	13	249,425	7 th	403	Akinima
18	Ahoda East	12	166,747	16 th	341	Ahoda
19	Ogba/ Egbema/	15	284,010	4 th	969	Omoku

	Ndoni					
20	Emohua	19	201,901	13 th	831	Emohua
21	Ikwerre	13	189,726	15 th	655	Isiokpo
22	Etche	19	249,454	6 th	805	Okehi
23	Omuma	3	100,366	21 st	170	Eberi.
	Total	245	5,185,400			

372

373 Table 3 Shows that Port Harcourt LGA ranks first as the most populous Local
374 Government in Rivers State with a population of 541,115 and 15 schools, while
375 Khana Local Government Area has a comparatively smaller population of
376 294,217, but with more schools (22) . Tai Local Government Area has a
377 population of 117, 797 with 10 schools, while Andoni has a higher population
378 of 211,009 with the same number of schools (10). Akuku-Toru Local
379 Government Area has a population of 56,006 and 6 schools, while Okrika Local
380 Government Area has a larger population of 222,026 with also the same number
381 of schools (6). Abua/Odual local Government Area has a population of 282,
382 988, and 11 schools , while Etche Local Government Area has a comparatively
383 smaller population of 249, 454 but with more schools (19). Ahoada East has a
384 population of 166,747 and 12 schools, while Gokana Local Government Area
385 has a larger population of 228,828 but with the same number of schools (12).
386 Ogu/Bolo Local Government Area has a population of 74,683 and 3 schools,
387 while Opobo/Nkoro Local Government Area has the same number of schools
388 (3), but with a larger population of 151,511.

389 From the preceding analysis it is obvious that population factor was not
390 considered in siting public secondary schools in Rivers State.

391 **Summary of findings**

392 It was found that:

- 393 1. A wide disparity exists among Local Government Areas in the distribution
394 of public secondary schools in Rivers State.
- 395 2. The upland local government areas (LGAs) have a total of 190 public
396 secondary schools representing 77.55% of the total number of public
397 secondary schools in Rivers State, while the riverine Local Government
398 Areas have 55 public secondary schools representing 22.45% of the total
399 number of secondary schools in the state. This implies that the upland Local
400 Government Areas have more than twice the number of public secondary
401 schools in riverine areas of Rivers state.
- 402 3. The population size of local Government Areas was not taken into
403 consideration in siting public secondary schools in Rivers State.

404 **Discussion**

405 The study revealed wide disparity in the distribution pattern of public
406 secondary schools among the 23 local Government Areas in Rivers State. For
407 instance, Khana local government Area (LGA) alone has 22 secondary schools,

408 while a combination of five Local Government Areas namely, Ogu/Bolo (3
409 schools), Omuma (3 schools), Oyigbo (4 schools), Bonny (4 schools) and
410 Opobo/Nkoro (3 schools) have a total of 17 schools, a number less than the
411 number of schools sited in Khana local Government Area.

412 Also, Emohua local Government Area has 19 schools while Akuku-Toru Local
413 Government Area has 6 schools. Furthermore, Obio/Akpor Local Government
414 Area has 16 schools, while Eleme Local Government Area has 6 schools.
415 These findings indicate lopsided distribution of public secondary schools
416 Rivers State, some local Government Areas have twice as much schools than
417 others. This finding contradicts the principles of equity in school mapping
418 which is to ensure even distribution of resources across regions, state and
419 country (Oyedeji, 2001). Thus, ignoring the equity principles in siting schools
420 means that some communities will have more schools, while others will have
421 barely enough to meet their needs. In this regard, Castaldi (1977) observed that
422 wide consultations with relevant stakeholders in school mapping activities
423 minimize the tendency for errors or wrong decisions in school mapping.

424 The study also revealed that upland local Government Areas (LGAs) in Rivers
425 State, have a total of 190 public secondary schools, while riverine Local
426 Government Area have a total of 55 public secondary schools. The implication
427 is that the upland local Government Areas and communities have more than

428 twice the number of public secondary schools in riverine Local Government
429 Areas and communities in Rivers State. This finding equally indicates
430 imbalance in siting schools across Rivers State. This disparity in the number of
431 schools between the upland and riverine Local Government Areas and
432 communities in Rivers State, could be attributed to geographical factors and
433 political considerations. A major consideration in school mapping is the
434 possibilities of students having access to school, transportation system, and
435 road network. (Igwe, 1998 & Varghese, 1997). In this wise, the riverine areas
436 appear not very advantageous for the siting of schools. Corroborating this
437 view, Uwazuruike (1991) noted that school mapping ensures that educational
438 institutions are sited at their most advantageous locations. This means
439 advantageous from the point of accessibility to the students and full utilization
440 of educational resources. Nevertheless, political considerations could step in
441 relation to the use of school mapping to satisfy the social demand of education.
442 This implies that the socio-cultural configuration of a community should be
443 considered. For instance, rapid rural to urban migration. According to Varghese
444 & Bisval (1999) the government or the political authority could use its policy
445 on school mapping to discourage rural-urban migration, through the
446 establishment of social amenities especially school in rural areas. Based on this

447 premise, educational resources including siting of schools could be evenly
448 distributed across regions, state, and country.

449 Furthermore, the study revealed that population size of local government areas
450 (LGAs) was not considered in siting public secondary schools in Rivers State.
451 For instance, Port Harcourt Local Government Area is the most populated
452 Local Government in Rivers State with a population figure of 541,115 and 15
453 schools, while Khana Local Government Area with comparatively lower
454 population figure of 294,217 has as much as 22 schools. Also, Okrika Local
455 Government Area has a population figure of 222,026 and 6 schools, while
456 Akuku-Toru Local Government Area with a lower population of 156, 0006
457 has the same number of schools (6) as Okrika Local Government Area. Further
458 findings indicate that Gokana Local Government Area has a population figure
459 of 228,829 and 12 schools, while Ahoada East Local Government Area with a
460 comparatively lower population figure of 166,747 has the same number of
461 schools (12) as Gokana Local Government Area. In the same vein, Ogu/Bolo
462 Local Government Area has a population figure of 74,683 and 3 schols, while
463 Opobo/Nkoro Local Government Area with a relatively larger population
464 figure of 151,511 also has equivalent number of schools (3) as Ogu/Bolo Local
465 Government Area. These findings contradicts the position of Nwakpa (2015)
466 who observed that schools should be located in areas with high population

467 density in order to have enough school children. This means that neglecting
468 population factor in siting schools could result into a situation where many
469 schools exist, but with few students. In the same vein, Arinze (1991) noted that
470 many primary and secondary schools arbitrarily established in Nigeria proved
471 to be unviable in the long run and had to be phased out or reorganized by
472 successive government. Politics of school mapping could give rise to a
473 situation where there could be more schools in certain localities more than the
474 actual need of the people in such locality. According to Nwadiani (2010) this
475 could result into waste of scarce educational resources.

476 **Conclusion**

477 From the preceding study politicization of education has had a profound
478 influence on school mapping processes. The primary objective of school
479 mapping is the sustenance of a good educational programme. Thus, it is very
480 imperative to locate educational facilities and resources in such a manner that
481 would meet the educational programmes they are meant to serve. School
482 mapping from all indications has not been given the attention it deserves in
483 Rivers State. This calls for equitable distribution of public secondary schools to
484 ensure even educational development of Rivers state.

485 Based on the study the following recommendations were made:

- 486 1. To entrench school mapping principles in the allocation of educational
487 resources in Rivers State, educational planners should be involved in the
488 process of school mapping.
- 489 2. The Rivers State Ministry of Education should commission a study on the
490 development of mapping activities in Rivers State. The availability of a
491 database will enhance equitable allocation of educational resources and
492 scientific school mapping in River State.
- 493 3. The principle of equity in the allocation of educational resources should be
494 given prime consideration by the political class to ensure balanced
495 educational development of Rivers State.
- 496 4. In furtherance to the principle of equitable distribution of public secondary
497 schools , the Rivers State Government should redistribute existing schools or
498 establish additional secondary schools in some local government areas
499 (LGAs) with relatively low number of public secondary schools. The Local
500 Government Areas include Bonny, Omuma, Opobo/Nkoro, Oyibo and
501 Eleme.
- 502 5. There are a total of fifty-five (55) public secondary schools in riverine local
503 government areas against one hundred and ninety (190) in the upland local
504 government Areas. This gross imbalance calls for redistribution or

505 establishment of new schools in riverine local government areas of Rivers
506 State.

507 **References**

- 508 Adaja, C. F. & Osagie, R. O. (2015). Politics of school mapping and facilities
509 provision in higher education in Nigeria. In N.M. Abraham, D.O.
510 Durasaro, M. Nwadiani, G.G. Kpee, J.E. Okon & I.A. Odiba (eds) *Politics*
511 *of Education and National Development in Nigeria* (pp 82-86). NAEAP;
512 University of Port Harcourt Press.
- 513 Adesina, S. (1981). *Introduction to educational planning*. Ile-Ife; University of Ife
514 Press Ltd.
- 515 Akabue, A. U. (1991). Approaches and conceptual framework for educational
516 planning. In C.N. Uwazuruike (ed) *Educational Planning and National*
517 *Development* (pp. 40-45). Awka , Nigeria: Mekslink Publishers.
- 518 Albert, M. (1991). *Effective management*. New York: Harper and Row
519 Publications.
- 520 Arinze, F. O. M. (1991). School mapping: A basic function of educational
521 planning. In C.N. Uwazuruike (ed) *Educational planning and National*
522 *Development: The Nigerian perspective* (pp.251 – 257). Awka, Nigeria:
523 Mekslink Publishers.
- 524 Ary, D., Jacobs, L.C. & Razavieh, A. (2012). *Introduction to research in*
525 *education*. California: Thompson Learning.
- 526 Boles, H. W. (19995). *Step by step to better school facilities*. New York: Harper &
527 Row Publishers.
- 528 Caillods, F. & Heyman, S. (1982). *Intensive training course on microplanning and*
529 *school mapping* Tanzania/ UNESCO: IIEP.
- 530 Castaldi, B. (1977). *Educational facilities planning, remodeling and management*,
531 Bostons Massachusetts: Allyn and Bacon.
- 532 Coombs, P. H. (1974). *What is educational planning?* Paris, France: UNESCO,
533 International Institute of Educational Planning.

- 534 Hallack, J. (1977). *Planning the location of school. An instrument of educational*
535 *policy*. Paris: UNESCO: HEP
- 536 Ibara, E. C. (2006). Determinants of secondary school teachers distribution in
537 Nigerian schools: A case study of Rivers State. *Journal of Educational*
538 *Research and Policies* 3(2) 75-79.
- 539 Ibara, E.C. (2006b). School plant utilization and and maintenance techniques in
540 Nigerian Secondary schools. The case study of Rivers State. *African*
541 *Journal of Development Studies* (1&2) 5&6, 86-93
- 542 Ibara, E. C. (2008). Towards the promotion of school plant maintenance culture in
543 Nigerian educational institutions. *Journal of pedagogy and Educational*
544 *Development* 13(1), 51- 54.
- 545 Ibara, E. C. (2011). School mapping and data indicators. Instruments for micro-
546 planning in the Nigerian educational system. *Educational planning*, 1(20)
547 1-7.
- 548 Igwe, A. O. (1998). *Time to start school mapping*. Daily Times newspaper, June 7,
549 Lagos p.8.
- 550 National Population Commission (2006). *Census manual*. Nigeria: Abuja.
- 551 Nwadiani, M. (2010). *Economic dimension of educational planning in Nigeria.*
552 *Theory and practice*. Benin , Nigeria: Monose Amalgamates.
- 553 Nwakpa, P. (2015). Corruption: Bane of Educational Policy Implementation in
554 Nigeria. In N.M. Abraham, D.O. Durasaro, M. Nwadiani, G.G. Kpoe, J.E.
555 Okon & I.A. Odiba (eds) *Politics of Education and National Development*
556 *in Nigeria*(pp. 138-140). NAEAP; University of Port Harcourt.
- 557 Nwankwo, J. I. (1981). *Educational planning: theory and methods*. Nigeria:
558 Izharsons.
- 559 Okeke, B.S. (1995). *Qualitative research in education: supervisors perspective*.
560 Port Harcourt: Bengray publishing Co.
- 561 Olaniyan, O. D. & Anthony, K.I. (2013). Effect of inadequate school plant on
562 academic performance of Nigerian secondary school students.
563 *International Journal of Humanities and Management Sciences* 1, 198-
564 200.

- 565 Oyebade, S.A. (2009). School mapping and facilities analysis. In J.B. Babalola &
566 A.O. Ayeni (eds.) *Educational Management: Theories and Tasks* (pp 40-
567 48). Yaba, Lagos: Macmillan Nigeria Publishers Ltd.
- 568 Oyedeji, N. B. (2001). *The palestine school mapping project*. School of geography.
569 University of New South Wales.
- 570 Rivers State Ministry of Education (2010). *Planning, research and statistics*
571 *bulletin*. Port Harcourt.
- 572 Uwazuruike, C.N. (1991). Approaches and methods of educational planning in
573 Nigeria. In C.N. Uwazuruike (ed). *Educational Planning and National*
574 *Development* (pp 15-27). Awka , Nigeria: Mekslink Publishers.
- 575 Varghese, V.V. & Bisval, K. K. (1999) *School mapping: An analysis of*
576 *educational facilities in Dhenkanal District*. New Delhi National Institute
577 of Educational Planning and Administration
- 578 Varghese, N.V. (1997). *School mapping*. New Delhi, India: National Institute of
579 Educational Planning and Administration.
- 580 Yoko, M. (2001). *Application of GIS in school in Bangkok*. Thailand: Asia Centre
581 for Research on Remote sensing.