PREPARING STUDENTS FOR SENIOR SECONDARY SCHOOL CERTIFICATE EXAMINATIONS IN BAYELSA STATE, NIGERIA: HOW ADEQUATE ARE THE AVAILABLE TEACHERS IN RURAL AREAS?

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ABSTRACT: The study was on adequacy of teachers in secondary schools in rural areas to prepare students for Senior Secondary School Certificate Examinations (SSSCE) in Bayelsa State. Data was collected using the Infrastructure Availability Index (IAI) in terms of motorable roads, electricity supply, health facilities, educational facilities, portable drinking water, telecommunication and sanitation. Subjects offered in SSSCE were obtained from the Ministry of Education and school principals. The subjects offered and teacher/school ratio in the LGAs was used to ascertain the adequacy of quality teachers to prepare students for SSSCE. The findings showed that the mean average teacher ratio of 10 to a secondary school in rural LGAs was twice less than that of secondary schools in urban LGAs with 24. In addition, the rural secondary schools lacked adequacy of quality teachers to prepare students for the SSSCE. Thus, the performance of students in SSSCE in rural areas was affected and such students were deprived of the benefits of passing the SSSCE which will affect their employment and future academic opportunities and when seeking elective positions. The study therefore, recommended that government should ensure equitable distribution of adequate teachers in rural and urban secondary schools.

KEYWORDS: Senior secondary school, terminal examinations, quality teachers, teacher/school ratio, teacher/subject ratio, rural areas,

INTRODUCTION

Secondary education according Federal Republic of Nigeria (2014) is the education children receive after primary education and before the tertiary education. It can also be described as the levels of schooling that follow elementary school and conclude with high school graduation (Tirozzi, 2002). It is divided into two categories namely: Junior Secondary School (JSS) and Senior Secondary School (SSS). The JSS and SSS are each of three years duration. At the end of the three-year SSS, the students are expected to enrol and sit for a terminal examination also known as public or national examination which is usually administered by an agency outside the school system (Kellaghan & Greanery, 2003).
A terminal examination is a test given to students at the end of a course of study or training (Wikipedia, the free encyclopedia, 2016a); an official test that shows your knowledge or ability in a particular subject (the freedictionary, 2016) or a means of carrying out a summative assessment, rather than an ongoing formative evaluation of the candidate's performance (Oxford University Press, 2016).

In Nigeria, students have to sit for a terminal examination known as the Senior Secondary School Certificate Examination (SSSCE) conducted by two public or national examination agencies namely: the West African Examination Council (WAEC) and the National Examination Council (NECO). This is the examination taken by candidates in their last stage of secondary education, that is, candidates in the third and final year of their secondary education. The West African Senior Secondary School Certificate Examination (WASSCE) administered by WAEC is a type of standardized test conducted for its member countries namely: Ghana, Liberia, Nigeria, Sierra-Leone and The Gambia (West African Examination Council, 2016). The academic school-leaving qualification awarded upon successful completion of the examinations is the West African Senior School Certificate (WASSCE). The WAEC was established by law in 1952 with headquarters in Accra, Ghana and national offices in all member countries with the mandate to conduct such examinations and award certificates of comparable standard to those of similar examining authorities, world-wide.

The National Examination Council (NECO) was established by the Federal Government of Nigeria in 1999 as a complimentary examination body to WAEC. It also conducts the senior Secondary School Certificate Examination (Wikipedia, the free encyclopedia, 2016b) for which the Senior Secondary School Certificate is also awarded to successful candidates, the two certificates are both legal and of equal status. The two examination agencies offer about forty subjects for students to choose from. However, students are expected to choose a minimum of eight (8) and a maximum of nine (9) subjects while Mathematics and English language are compulsory. The subjects offered by students in each country or the various states in each country depend on individual peculiarities and the availability of qualified subject teachers.

Importance of SSSCE in Nigeria education system

The public or terminal examinations conducted by WAEC and NECO plays an important role in the education system of Nigeria. The examination has a certification function because students are awarded a certificate when they pass the examinations. The formal certification of academic achievements will enable students in gaining access to employment, profession or training (Kellaghan & Greanery, 2003; The Hong Kong Polytechnic University, 2016).

The results of such examinations are used for admissions into tertiary institutions and qualification to stand for elective offices (Exams guru, 2013). In Nigeria, for a candidate to be admitted into a polytechnic, college of education, universities or any other tertiary institution, the candidate must possess the required passes in the SSSCE. In addition, for someone to seek for elective position, the person must also pass the SSSCE and be certificated. The SSSCE results can be used to select students for successive levels in the education system. That is, the results are used to determine the suitability of students to transit from one stage to another, especially in pyramidal education systems.
systems in which the number of places diminishes at each successive level. (Examsguru, 2013; Kellaghan & Greanery, 2003; The Hong Kong Polytechnic University, 2016). Public examinations are assessment of merits and they help individuals to be able to know their performance, knowledge or progress achieved in studies and also helps in developing one’s own personality and confidence (Sun, 2016; Kumarjee, 2010). National examinations control the disparate elements of the education system, helping to ensure that all schools teach to the same standards. It provides a clear specification of clear goals and standards for teachers and students. It can be used to underpin changes in curriculum and teaching methods, and to maintain national standards. Apart from that, it serves as an accountability function for teachers and schools when the results of students’ performance on examination are published (Kellaghan & Greanery, 2003). In addition, it provides legitimacy of membership in the international global society, and facilitates international mobility. It can be used to identify differences in performance between boys and girls, between regions, between locations (rural and urban), and between schools. More importantly, it can be used to provide evidence to determine whether standards are rising, falling or remaining constant through the monitoring of students’ achievements in the education system over time (Kellaghan & Greanery, 2003).

Need for adequate teachers in secondary schools to prepare students for SSSCE

In view of the importance of public examinations vis-a-vis the SSSCE, the need for adequacy in the supply of teachers in all subject areas offered to prepare students for the SSSCE became very important irrespective of whether the schools are located in rural or urban areas. This is because; it will afford secondary school students in rural and urban areas equal opportunity to derive the benefits accruable in passing the SSSCE. This can only happen when students pass such examinations with the required grades for future growth. Rural areas include a combination of an open countryside; rural towns or places with fewer than 2,500 people (Reeynnells, 2014). Rural areas lack density of human structures, commercial buildings, roads etc. Urban areas according to WebFinance (2015) pertain to a large city; an area with a large amount of people residing in it, an area that has been significantly developed, or an area where the distance between buildings is very small. They are very developed, meaning there is a density of human structures such as houses, commercial buildings, roads, bridges, and railways with settlements of 2,500 inhabitants or more (The National Geographic Education, 2015).

In this context, rural secondary schools are schools located in places with fewer than 2,500 people that are comprised of hamlets, villages, towns, and other small settlements with no motorable roads, hospitals, banks, electricity, telecommunication and sanitation etc. Conversely, urban secondary schools are schools located in usually densely populated settlements with motor-able roads, public institutions, electricity, hospitals, commercial buildings, banks, etc. The importance of adequacy of quality teachers in both rural and urban areas is no secret; and the impact of the teachers in the academic performance of the students is also germane. For this reason, schools and their communities will always seek for the best teachers in the belief that their students’ success depends on it (Center for Public Education, Pretoria, 2016) since students’ achievement is one of the strongest predictors of future income and growth (Hanushek, 2011; Hanushek & Woessman, 2009; Hanushek & Zhang, 2009; Mulligan, 1999).
Quality teachers are those who are professionals with the right pedagogical credentials to teach students. They usually have a good mastery of a subject and this is determined by the performance of the students in that subject at any prescribed examination. Therefore, any interactive activity between the teacher and the students is expected to produce learning outcomes in the learners (Owolabi, 2012). The issue of professionalism in teaching has been a source of concern for the education system. Many stakeholders in the education sector have argued the necessity of skilled teachers for effective learning. In this regard, Ngada (2007) emphasized that the success or failure of any educational programme rests majorly on adequate availability of qualified (professional), competent and dedicated teachers.

Teacher quality, in particular, is seen as the most important variable affecting student achievement (Darling-Hammond, 2000). Seebruck, (2015) therefore opined that; ‘I find support that teacher credentialization is positively associated with student performance’. This reaffirms the need for policy makers seeking to close the student achievement gaps to focus on providing all students equal access to credentialed teachers. Sanders and Rivers (1996); Seebruck, (2015), stressed that the effects of teacher quality on student achievement are additive and cumulative and that teaching quality is more highly correlated with student achievement than other variables such as students’ socioeconomic status, the racial composition of the school or school environment.

In addition, Center for Public Education, Pretoria (2016), observed that the positive effects of teacher quality appear to accumulate over the years. That is, students who were enrolled in a succession of classes taught by effective teachers demonstrated greater learning gains than those students who had the least effective teachers one after another. Though, it is difficult to characterize an “effective teacher; but the teacher characteristics that are commonly recognized are those that measures the quality of teachers in terms of content knowledge, teaching experience, training and credentials, and overall academic ability (Center for Public Education, 2016). Effective teachers have a solid background in the subject area they teach as measured by the certificates obtained in a particular subject area from a tertiary institution; and when combined with professional certification and some years of teaching experience; produce higher student results.

Conversely, where there is inadequacy in supply of quality teachers for all the subjects when preparing students for public examinations, students offering certain subjects will be taught by unqualified and ineffective teachers from the pool of the few available teachers who are specialist in other subject areas. The consequences of involving unqualified teachers for the preparation of students for public examinations are obviously in the negative direction. Teachers according to Owolabi (2012), are the facilitators who are to impact into the students the concepts expected to be learnt. Thus, professionally qualified teachers in any subject area will always involve the students in the teaching-learning activities right from the beginning of any new concept to be taught. Therefore, lack of quality teachers will contribute to students’ poor performance (Ango, 1990).

Furthermore, the teacher’s ignorance and neglect of activity-oriented methods in some practical oriented subjects is due to lack of qualification. It is therefore, the opinion of Olarewaju (1986);
Adeniyi (1993); Nwagbo (1995), that the teachers’ qualification level and ignorance in some salient aspects of a subject has negatively contributed to students’ performance in secondary school Physics. Also, in studies carried out by Oladele, Ayodele, Oluyide and Alawode (1993); Ashien (2003); it was revealed that lack of qualified teachers affected students' performance in Agricultural Science and Principles of Accounting in senior secondary school certificate examination. This means that, the role of the teacher is very important in improving the performance of students in those subjects.

Sometimes the rural schools have less experienced teachers, as the more experienced teachers find ways to the more desired schools in urban areas. In this regard, the school systems according to Organisation for Economic Co-operation and Development (2011) often respond to teacher shortages in the short term in ways that raise concerns about the quality of teaching and learning. They ensure that classrooms have teachers by some combination of assigning teachers to teach in subject areas in which they are not fully qualified. In this way the teachers are given the responsibility to take on multiple duties (Monk, 2007). Owusu-Acheampong and Appiah-Williams (2015), maintained that, given that rural schools are characteristically small, teachers are required to carry teaching loads in multiple subjects. This demands greater preparation time for teachers and places greater strain on teachers having to cope with diverse subject content at the same time. Thus, with shortage of teachers, the few available teachers will be teaching out of their area of specialisation (Stinebrickner, 2001; Eide & Goldharber, 2004).

Lack of adequate supply of qualified teachers creates a scenario where teachers will not be able to cover the subject contents in the syllabus before the students sit for examinations. They only teach for purposes of the examination and not for students to understand the underlying concepts of the subjects they are teaching. Even, when there is adequate supply of qualified teacher, Mulkeen (2015), posited that teachers in rural schools may teach less than their counterparts in urban areas. Any trip away from the rural area, to visit a doctor, to collect pay, to engage in in-service training, or to visit family may involve long journeys and involve missed school days. This definitely means that the syllabus for that subject may not be covered and even when the syllabus is covered, it may be hurriedly done without concern for in-depth dissemination of the subject content in the syllabus.

From the foregoing, the derivable benefits of students in passing SSSCE will not be realized when the students are taught by incompetent teachers, because such teachers would not be able to properly and adequately disseminate the concepts to the students (Owolabi, 2012). The teacher is the major manpower saddled with the responsibility of impacting the concepts in the various subjects in the secondary school and this is fundamental to the growth of students and development of the society. A nation’s manpower development depends on the quality and quantity of her well-qualified teachers (Owolabi, 2012; Adeniyi, 1993). The significance of adequacy of quality teacher cannot be underscored in the preparation of students for SSSCE. In this regard, Hanushek (1992), argues that the negative consequences of even one year of instruction from an ineffective teacher can be nearly impossible to fully overcome. Prince (2002) concluded that teacher quality is the single most important school variable affecting student achievement.
Reasons for inadequate teachers to prepare students for SSSCE in rural secondary schools

From available data, teacher adequacy is skewed in favour of urban schools as many countries report that teachers express a strong preference to teach in urban schools (Akyeampong & Lewin, 2002; Mulkeen, 2015). The reasons are not far-fetched. According to Ingersoll (2001), the teacher turnover is the primary reason for the teacher shortage in rural areas. The utility derived by a teacher in his geographical location affects the adequacy of teachers supply. According to Department of Education, Pretoria (2006), for those teachers finding themselves in rural school, their derived utility is lower than those who are in schools that are resource endowed or are in areas with amenities. Teachers who experience decreased utility will either exit the profession or move to schools that increase their utility by increasing the non-financial part of the utility. This is an important consideration, because teacher salary in Nigeria is equal regardless of the school location or resources. This explains why some research findings indicate that rural areas were experiencing shortages of competent and qualified teachers especially in science, mathematics, English language, technology, economics and management sciences teachers as compared to urban schools. Therefore, choice to enter teaching, stay in current school or change school is a response to starting wages, future growth, and non-pecuniary rewards of the profession and consideration of the opportunity costs of staying in teaching. Individuals, who choose teaching, have certain expectations about the utility derived from the rewards of teaching. However, if teaching fails to meet their expectations, then it is optimal for the individual to change their profession or school (South African Council for Educators, 2010).

In addition, teachers often have some choices to make on the type and location of schools they would want to teach. Such preferences are as a result of attractive and unattractive conditions that are found in different schools and locations. Challenges associated with rural schools which are unattractive may not attract qualified teachers; and teachers posted to such unattractive conditions may not stay in such school long enough to impact positively on the culture of teaching and learning (Reed & Busby, 1985; Maphosa, Bhebhe & Shumba, 2014).

There are a number of rational reasons why teachers may prefer urban postings. They lack of good accommodation, healthcare services (Akyeampong & Stephens, 2002; Towse, Kent, Osaki & Kirua, 2002); lack of classroom facilities, school resources and the access to leisure activities (Towse, Kent, Osaki & Kirua, 2002; Adedeji & Olaniyan 2011). Other teachers concern about posting to rural schools are the recurrent electricity outages or no access to electricity, clean water supply, long distance between their place of abode and their schools, lack of public transportation in rural areas where some schools can merely be reached through restricted access roads or via rivers and the brunt of increased cost of living (Monk, 2007; Marwan, Sumitono & Mislan, 2012), lack of telecommunication and sanitation. In terms of challenges encountered in rural schools, Nhambura (2011) quotes a teacher union leader in Zimbabwe who states that; the majority of the rural schools are inaccessible to a point that some teachers have to walk for 40 kilometres to the next serviceable road.

Teachers may also see rural areas as offering fewer opportunities for professional advancement as urban areas offer easier access to further education as well as lack of incentives for rural teachers.
Thus, the absence or inadequate teachers in rural schools is a major setback to the achievement of quality education, capacity building and for the development of the human resource (Owusu-Acheampong & Appiah-Williams, 2015).

Sometimes, due to lack of experienced and quality teachers in rural schools, the school system often respond to teacher shortages in the short term by ensuring that classrooms have teachers by assigning teachers to teach in subject areas in which they were not fully qualified (Organisation for Economic Co-operation and Development, 2011), without concern for quality of teaching and learning. Since, the rural schools lack teachers, the available few are required to carry teaching loads in multiple subjects. This demanded greater preparation time for teachers and possibly places greater strain on teachers having to cope with diverse subject content at the same time (Owusu-Acheampong & Appiah-Williams, 2015); and the few available teachers will be teaching out of their area of specialisation (Stinebrickner, 2001, Eide & Goldharber, 2004). In effect, lack of adequate supply of quality teachers creates a scenario where teachers will not be able to cover the syllabus before the students sit for examinations. They only teach for examination sake and not for students to understand the underlying concepts of the subjects they are teaching.

**Purpose of the study**

The purpose of the study was to investigate the adequacy of the available teachers for preparing students for senior secondary school certificate examinations in Bayelsa State, Nigeria. Specifically, the study was to establish:

1. Local Governments classified as rural and urban areas in Bayelsa State.
2. The distribution of secondary school teacher/school ratio between rural and urban local government areas in Bayelsa State.
3. The adequacy of teachers in rural and urban local government areas to prepare students for senior secondary school certificate examinations in Bayelsa State.

**Research Questions**

The following research questions guided the study:

1. Which of the local government areas are classified as rural and urban areas in Bayelsa State?
2. What is the distribution of teacher/school ratio in secondary schools between rural and urban local government areas in Bayelsa State?
3. Will teachers in secondary schools in rural and urban local government areas be adequate to prepare students for senior secondary school certificate examinations in Bayelsa State?

**METHODOLOGY**

The study covered eight local government areas of Bayelsa state, Nigeria namely: Brass, Ekeremor, Kolokuma/Opokuma, Nembe, Ogbia, Sagbama, Southern Ijaw and Yenagoa. The population of the study was all the secondary schools and the teachers in the state. No sampling was required because no group of schools or group of teachers were selected for the study.
Data for the classification of LGAs into rural and urban areas was the Infrastructure Availability Index (IAI) designed by the researcher. The availability criteria used was motorable roads, electricity supply, health facilities, educational facilities, portable drinking water, telecommunication and sanitation. The level of availability was assigned: very high availability (VHA), high availability (HA), moderate availability (MA), low availability (LA) and very low availability (VLA) and was rated 5, 4, 3, 2 and 1 on a five point scale.

Data for the number of secondary schools and the teachers in all the LGAs was obtained from the Bayelsa State Ministry of Education for the 2013 schools and teachers census. Data for the subjects offered in public secondary schools was obtained from Bayelsa State Ministry of Education and the students’ examination result sheets obtained from the school principals. These subjects from which students were expected to offer a maximum of nine (9) subjects were Mathematics, Further Mathematics (Elective Mathematics), English language, Literature in English, Biology, Chemistry, Physics, Geography, Economics, Government, History, Commerce, Financial accounts, Book keeping, Agricultural science, Christian religious studies, Technical Drawing and Fine arts.

Data was analyzed using the following criteria:

1. In classifying the LGAs into rural and urban areas, any mean Infrastructure Availability Index (IAI) score above 3.00 indicated an urban LGA and mean IAI score below 3.00 indicated a rural LGA. That is secondary schools in urban LGAs were classified as urban secondary schools while those in rural LGAs were classified as rural secondary schools.
2. The data collected on the available schools and teachers from the secondary school census was used to compute the teacher/school ratio for each LGA. The teacher/subject ratio was computed by dividing the expected eighteen (18) subjects offered in each school with the values of the teacher/school ratio. Where, the teacher/subject ratio was equal to one teacher per subject and above, then, the teachers to prepare students for the SSSCE was adequate. Conversely, where, the teacher/subject ratio was below one teacher per subject, then, the teachers to prepare students for the SSSCE were inadequate.

FINDINGS

Research question 1

Research question 1 was to classify the LGAs into rural and urban areas. The results in Table 1 revealed that five LGAs were in rural areas namely: Brass (Balga), Ekeremor (Ekelga), Nembe (Nelga), Sagbama (Salga) and Southern Ijaw (Silga) because the mean Infrastructure Availability Index (IAI) scores were below the median score of 3.00. These LGAs lacked motorable roads, electricity supply, health facilities, educational facilities, portable drinking water, telecommunication and sanitation. Therefore, secondary schools located in these LGAs were rural secondary schools.
Table 1: Classification of rural and urban areas based on Infrastructure Availability Index (IAI)

<table>
<thead>
<tr>
<th>Required infrastructure</th>
<th>Balga</th>
<th>Ekelga</th>
<th>Kolga</th>
<th>Nelga</th>
<th>Olga</th>
<th>Salga</th>
<th>Silga</th>
<th>Yelga</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor-able roads</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Electricity supply</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Health facilities</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Educational facilities</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Portable drinking water</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Telecommunication</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Sanitation</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Accommodation</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Infrastructure Availability Index (µ)</strong></td>
<td>1.50</td>
<td>1.40</td>
<td>3.00</td>
<td>1.40</td>
<td>3.00</td>
<td>1.40</td>
<td>1.30</td>
<td>3.50</td>
</tr>
<tr>
<td><strong>Remark</strong></td>
<td>Rural area</td>
<td>Rural area</td>
<td>Urban area</td>
<td>Rural area</td>
<td>Urban area</td>
<td>Rural area</td>
<td>Rural area</td>
<td>Urban area</td>
</tr>
<tr>
<td><strong>Legend</strong></td>
<td>VHA-5; HA-4; MA-3; LA-2; VLA-1; IAI ≥ 3.00-Urban area; IAI ≤ 3.00-Rural area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The remaining three LGAs namely: Kolokuma/Opokuma (Kolga), Ogbia (Olga) and Yenagoa(Yelga) were classified as urban LGAs because they had the mean IAI above the median value of 3.00; and the LGAs had relative availability of basic infrastructure not found in rural LGAs. Thus, the secondary schools located in the three LGAs were classified as urban secondary schools.

**Research Question 2**

Research question 2 was to ascertain the distribution of teacher/school ratio in secondary schools between rural and urban local government areas in Bayelsa State. The results in Table 2 revealed that the local average (LGa) of teacher/school ratio in secondary schools in the rural LGAs was 10 teachers per school. In the urban LGAs, the teacher/school ratio was 24 teachers per school as the LGa. Also, the LGa of teachers/school ratio of 10 teachers per school in the rural schools was far less than the LGa teachers/school ratio of 24 teachers per school for urban secondary schools which constitutes more than twice that of rural schools.
Table 2: Distribution of teachers and schools in rural and urban LGAs in Bayelsa State

<table>
<thead>
<tr>
<th>Location</th>
<th>Local Government Areas</th>
<th>No. of Schools</th>
<th>No. of Teachers</th>
<th>TSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural LGAs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brass</td>
<td>9</td>
<td>78</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Ekeremor</td>
<td>19</td>
<td>185</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Nembe</td>
<td>14</td>
<td>107</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Sagbama</td>
<td>22</td>
<td>260</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Southern Ijaw</td>
<td>39</td>
<td>344</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>974</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Local government average (LG_a)</td>
<td></td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Urban LGAs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kolokuma/Opokuma</td>
<td>10</td>
<td>196</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Ogbia</td>
<td>28</td>
<td>510</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Yenagoa</td>
<td>27</td>
<td>906</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>1612</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Local government average (LG_a)</td>
<td></td>
<td></td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>


Research question 3

Research question 3 was to establish whether there was adequacy of teachers in rural and urban local government areas to prepare students for senior secondary school certificate examinations in Bayelsa State. The results in Table 3 revealed that the LG_a of teachers/school in rural LGAs was 10, meaning that there were 10 teachers to teach the 18 subjects offer for Senior Secondary School Certificate Examination (SSSCE). Also, the Local government average (LG_a) of teacher adequacy was 1:2 (one teacher to teach two SSSCE subjects) with a shortfall of -8 (eight teachers). None of the schools in the five rural LGAs had adequate supply of teachers to prepare students for SSSCE since they all had about one teacher to teach more than one subject.

Table 3: Adequacy of teachers in rural and urban LGAs for preparation of students for SSSCE in Bayelsa State

<table>
<thead>
<tr>
<th>Location</th>
<th>Local Government Areas</th>
<th>Teacher/subject ratio</th>
<th>No. of SSCE subjects</th>
<th>Teacher/subject ratio</th>
<th>Shortfall/excess</th>
<th>Adequacy level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural LGAs</td>
<td>Brass</td>
<td>9</td>
<td>18</td>
<td>1:2</td>
<td>-9</td>
<td>Not adequate</td>
</tr>
<tr>
<td></td>
<td>Ekeremor</td>
<td>10</td>
<td></td>
<td>1:2</td>
<td>-8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nembe</td>
<td>8</td>
<td></td>
<td>1:2</td>
<td>-10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sagbama</td>
<td>12</td>
<td></td>
<td>1:2</td>
<td>-6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Southern Ijaw</td>
<td>9</td>
<td></td>
<td>1:2</td>
<td>-9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local government average (LG_a)</td>
<td>10</td>
<td></td>
<td>1:2</td>
<td>-8</td>
<td></td>
</tr>
<tr>
<td>Urban LGAs</td>
<td>Kolokuma/Opokuma</td>
<td>20</td>
<td></td>
<td>1:1</td>
<td>+2</td>
<td>Adequate</td>
</tr>
<tr>
<td></td>
<td>Ogbia</td>
<td>18</td>
<td></td>
<td>1:1</td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yenagoa</td>
<td>34</td>
<td></td>
<td>1:1</td>
<td>+16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local government average (LG_a)</td>
<td>24</td>
<td></td>
<td>1:1</td>
<td>+6</td>
<td></td>
</tr>
</tbody>
</table>


The results for the secondary schools in urban LGAs showed that the LG_a of teachers/school ratio was 24. Thus, there were 24 teachers to teach the 18 subjects offer for SSSCE. In addition, LG_a of teacher adequacy was 1:1 (at least one teacher to teach one SSSCE subject) with a surplus of +6
(eight teachers). All the schools in the three urban had adequate supply of teachers to prepare students for SSSCE.

**DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

The finding showed that five LGAs were classified as rural LGAs areas because they lack essential infrastructure such as motorable roads, electricity supply, health facilities, educational facilities, portable drinking water, telecommunication and sanitation while the remaining three were classified as urban LGAs. This finding was consistent Molefe, (1996) who stated that rural areas do not have adequate resources such as water, educational facilities and employment opportunities. This is caused by the inequitable distribution of resources which has resulted in urban areas enjoying a higher quality of life at the expense of the rural areas. In the same vein, Fishbein (2001) reported that the lack of adequate, affordable and reliable infrastructure services touches the life of a rural African every day. Local roads are impassable, thus walking becomes the principal means of transport for 87 percent of the rural households (Barwell, 1996). There is no telephone or other communication facilities for many miles as telephone lines serve primarily urban areas in Africa; very few African villages have a single telephone with an average disparity of “teledensity” (number of lines per person) between urban and rural areas in Africa is estimated to be as high as 25:1 (Dymond, Juntunen & Navas-Sabater, 2000). Even if a health clinic exists, the lack of electricity prevents the clinic from stocking refrigerated medicines since only about 5 percent of Africa’s rural residents have access to modern electricity (Sanghvi, 2000). Over two-thirds of the continent’s population lack adequate sanitation services and access to safe drinking water.

The finding also revealed that the Local government average (LGa) of teacher/school ratio for the rural secondary schools was 10 teachers per school while that of urban areas was 24. This indicated that the average number of teachers per school in the urban LGAs was more than twice that of the schools in rural LGAs. However, with LGa teacher/school of 10, the teacher/subject ratio in the schools in the rural LGAs was one teacher to two subjects if 18 subjects were offered for the SSSCE. Therefore, the teachers to prepare students for the SSSCE were not adequate in the rural schools. In the case of the schools in urban LGAs, the LGa of teacher/school ratio of 24, the teacher/subject ratio was at least one teacher to teach a subject in the 18 subjects offered for the SSSCE. Teachers to prepare students for the SSSCE in urban LGAs were therefore adequate.

In this regard, Akyeampong and Lewin, (2002); Mulkeen, (2015), observed that teacher adequacy was skewed in favour of urban schools as many countries reported that teachers express a strong preference to teach in urban schools.

Consequently, inadequate supply of quality teachers to prepare students for SSSCE had so many implications for students’ success in the senior school certificate examinations. Thus, students offering certain subjects will be taught by unqualified and ineffective teachers from the pool of the few available teachers who were specialist in other subject areas. According to Owolabi, (2012), teachers are the facilitators who are to impact into the students the concepts expected to be learnt. Thus, professionally qualified teachers in any subject area will always involve the students in the teaching-learning activities right from the beginning of any new concept to be taught. Therefore, lack of quality teachers will contribute to students’ poor performance (Ango, 1990) as it was the
case with the findings where you have one teacher to teach more than two subjects offered in the SSSCE.

Further, the teachers who were not qualified to teach a particular subject may be ignorant of some aspects of practical skills required of students and therefore neglect the activity-oriented methods in some practical oriented subjects. It was the opinion of Olarewaju, (1986); Adeniyi, (1993); Nwagbo (1995), that the teachers’ qualification level and ignorance in some salient aspects of a subject has negatively contributed to students’ performance in secondary school Physics. Oladele, Ayodele, Oluyide and Alawode, (1993); Ashien (2003) observed that lack of qualified teachers affected students' performance in Agricultural Science and Principles of Accounting in senior secondary school certificate examination. Thus, the role of the teacher was very important in order to improve the performance of students in every examination.

The importance of adequacy of quality teachers in both rural and urban areas was germane because of its impact in the academic performance of the students. Also, students’ achievement is one of the strongest predictors of future income and progress in life (Hanushek 2011; Hanushek and Woessmann 2009; Hanushek and Zhang 2009; Mulligan 1999). To close the students’ achievement gaps, there was urgent need to provide all students with equal access to adequate supply of quality teachers. Therefore, the effects of teacher quality on students’ achievement would be additive and cumulative and the teaching quality in any school was more highly correlated with student achievement than other school and societal variables. However, it will be difficult to obtain the benefits of adequacy of quality teachers for the preparation of students in SSSCE examinations in rural LGAs because there was a short-fall in teacher supply from the findings.

**CONCLUSION**

The study revealed that rural secondary schools do not have adequate supply of quality teachers and that teacher/school ratio was skewed in favour of urban secondary schools. Furthermore, the teacher/subject ratio in rural schools was one teacher to two subjects. This showed that, rural schools would not have quality teachers to prepare students for SSSCE, which invariably affected students’ performance in those subject areas. The resultant effect was that students who did not make good grades due to lack of quality teachers were not able to derive the benefits of passing SSSE after completing their secondary school education in terms of job prospects, further studies, elective positions and even self-actualization. In conclusion, the recommends that government should ensure equitable distribution of quality teachers in both rural secondary schools to effectively prepare students for terminal examinations.

**REFERENCES**


