

PROJECTING THE NUMBER OF PUPILS AND CLASSROOMS IN PUBLIC PRIMARY SCHOOLS IN SOUTHWESTERN NIGERIA (2020 – 2024)

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Abstract. In the study, the number of pupils and classrooms in public primary schools in Southwestern Nigeria were projected by first calculating how many pupils and classrooms are available in the schools, how many pupils will be in the study area from the year 2021 to 2024, and then estimate the number of classrooms required from the year 2020 to 2024. The study adopted a survey research design. This study's population comprised 8401 public primary schools in Nigeria's six Southwestern states. The states consist of Lagos, Ogun, Oyo, Ekiti, Osun, and Ondo. The study sample comprised 1092 schools, using the Research Advisor. The purposive sampling technique was used to select three out of the six Southwestern states. The simple random sampling technique was employed in selecting the schools and their headteachers in each state. 370, 357, and 365 public primary schools and their headteachers were selected from Lagos, Ogun, and Oyo States, respectively. Two instruments were used to gather data for the study. These are an official education document and a questionnaire. An official document containing the primary data on pupils' flow was collected

from Universal Basic Education Boards of Lagos, Oyo, and Ogun States to generate baseline enrolment figures to corroborate the schools provided the data under investigation. The questionnaire is titled "Primary School Pupils' Flow Questionnaire (PSPF-Q)", and it was used to elicit data on the number of pupils in the study area for the year 2020 and the number of classrooms physically available. The questionnaire was adapted from Adelokun & Adewole (2017). Therefore, the Primary School Pupils' Flow Questionnaire (PSPF-Q) was used to elicit data from headteachers on their pupils' flow from 2015/2016 session to 2020/2021 session. The results showed that public primary schools in Southwestern Nigeria would have an average of 464,836 pupils in 2021, an average of 479,944 pupils in 2022, 495,542 pupils in the year 2023, and an average number of 511,647 pupils in the year 2024. It also showed that the average number of classrooms required in the year 2020 is 3,172, for the year 2021, it is 3,659 for the year 2022, it equals 4,163, for the year 2023, it equals 4,683, and for the year 2024, it is 5,220. The study concluded that the government should plan for the projected number of pupils and classrooms.

Keywords: planning, projecting, pupils, classrooms, primary education

Introduction

The number of pupils in the classroom usually affects the performance of pupils. It is believed that the environment affects children's learning and also modifies their behavior.¹⁾ This is because the act of learning is a reaction to the environment. According to Flint et al. (2020), heredity and environment are the two significant factors that affect learning. The environment includes all the things that are around children and influences them. The state of the classroom in which a learner learns, which forms part of the learner's environment, influences the child's learning. For example, an overcrowded classroom can negatively influence pupils' learning, while a conducive classroom can positively affect it.

Edsand & Broich (2020) opined that a child or pupil's environment is a significant factor in learning and development. A child learns better in a conducive environment. The conducive environment from both the home and the classroom facilitates effective learning for children. Therefore, the government and educational planners need to achieve conducive classrooms for primary school pupils. When the number of pupils in a classroom exceeds the required number of thirty pupils, as stated by the Nigerian federal ministry of education's guideline, a conducive environment can not be achieved. When a classroom is dilapidated, and when a classroom is not built as at when due, it can not be conducive for pupils, and effective learning may not be achieved (Etale et al., 2020).

Having an adequate number of classrooms and a learner-friendly environment are inevitable in achieving primary school goals and necessary for schools to operate effectively. However, the lack of sufficient classrooms in public primary schools is one of the common challenges in Nigeria's primary education, most notably in Southwestern Nigeria. More specifically, there are insufficient public primary school classrooms in Southwestern Nigeria. The lack of sufficient classrooms may be connected to the uncompleted, abandoned, and dilapidated blocks of classrooms in most schools.

According to Amanchukwu & Ololube (2015), one of Nigeria's educational system challenges is school plants' bad planning. One can say that the perceived insufficient number of classrooms may be traced to bad planning. Therefore, this paper is concerned about planning and projecting the number of pupils and classrooms for five years, from the year 2020 to 2024.

This paper aims to plan public primary school construction efficiency in Southwestern Nigeria. The study covered the Southwestern States in Nigeria. The Southwestern States involved in the study are Lagos, Ogun, and Oyo.

Literature review

School classrooms in Southwestern Nigeria

Classrooms simply refer to buildings being used in the school system to carry out the pedagogical process. Classrooms enhance the realization of a school's aims, objectives, and educational system. Therefore, we can say that a classroom is essential for bringing about good education. Education has always been said to bring about a relatively permanent change in an individual's behavior. It is also often said that if there is no change in an individual's behavior pattern, education has not occurred.

Education in this context involves learning (Tye, 2014) and capacity development. As observed in Gambo et al. (2021), "education is the primary facilitator to the ever-increasing knowledge" globally. Thus, education provides a suitable process and platform where changes or modifications in a person's behavior pattern are brought about through experience (Olasimbo, 2013). In our opinion, these learning processes and experiences can be realized with an adequate number of classrooms, especially classrooms that are not overcrowded and in good conditions.

According to the Federal Government of Nigeria's Decree 16 of 1985 on minimum standards for primary and secondary schools nationwide, the officials of the Federal Ministry of Education (FME) and some parastatals in September 2002 came up with a document that states that the ideal number of pupils per classroom is 30, the optimal number is 35 while the maximum number is 40 and the mandatory area per-pupil including circulation is $1.4 \text{ m}^2 \times 40 \text{ pupils} = 56 \text{ m}^2$ (FME, 2002). The document revealed that the ideal number of 30 pupils per classroom should be achieved in the next ten (10) years, that is, in the year 2012. Most schools appear not to have achieved this until now from casual observations.

Musyoka (2013) posits that schooling in developing countries, especially in Nigeria, occurs under conditions that are very different from those in industrialized countries like Great Britain. Nevertheless, Baafi (2020) posits that

school plants and classrooms specifically significantly impact students' performance and school achievements. This is why it is essential to have classrooms in good conditions in schools, especially in Southwestern schools in Nigeria.

In the same vein, Loukas (2007) explained that learning environments vary significantly from one another. He argued that whereas some schools feel friendly, inviting, and supportive, others feel unwelcoming and sometimes unsafe. According to Stevens & Shi (2002), the quality of primary or elementary education for a large proportion of Blacks is poor. In the same vein, it is also known that these Black pupils do not have equal access to the resources, such as libraries, laboratories, and computers, because the resources are insufficient.

Primary education in Nigeria

Primary education is a fundamental level of the educational system. This is because primary education is the foundation for all other educational systems. The secondary education and tertiary education levels are built upon the foundations laid by primary education. This makes the primary level of education very important. It also demands a high level of attention paid to it by educational stakeholders. The Holy book says, 'when the foundation is destroyed, what can the righteous do?' The foundation of a building determines the height. Also, the foundation of children in primary school determines their heights in higher education levels. Some students' poor academic performance in the secondary and tertiary levels can be traced to the primary level's bad foundation.

Projecting the number of pupils and classrooms in public primary schools in Southwestern Nigeria becomes imperative in ensuring a solid foundation for pupils in the study area. It has been proven that the state of a classroom affects academic performance and academic achievements and contributes to creating a solid foundation for pupils in primary school. Therefore, classroom planning plays a significant role in primary education and the educational system.

Pupils, classrooms, and safety

A review²⁾ supported by Roffey (2012) posits that there is usually a good relationship among students and teachers in schools where stakeholders feel safe. Besides, there is also a higher probability of not experiencing violence in the schools. The school's architectural layout plays a vital role in shaping the learning environment. A safe and orderly environment is free of threats and conducive to teaching and learning. A good school environment, where good working school plants are available, especially in classrooms, enhances effective teaching and learning both for the teachers and students. For instance, in schools where there is enough space for the teachers to walk around during teaching, the attention of students will be gained by the teacher, which may, in turn, bring excellent academic performance. This is because the teacher will have a good view of every pupil while walking around. To buttress this point, Earthman et al. (1996) observed that 11th-grade students in standard buildings scored higher marks than their counterparts in substantial buildings.

According to Maslow (1954), man's needs, children inclusive, are in the hierarchy. There are five hierarchies of needs. They are physiological needs, safety needs, love and belonging needs, esteem needs, and self-actualization needs. The most important to man, among all the needs, is the physiological needs. Next to it is the safety needs, then the love and belonging needs, the esteem needs, and the self-actualization needs. Fig. 1 shows the diagrammatic illustration of Maslow's hierarchy of needs.³⁾



Figure 1. Maslow's hierarchy of needs explained

According to Maslow's hierarchy of needs³⁾, air, water, food, shelter, sleep, clothing, and reproduction make up the physiological needs, personal security, employment, availability of resources, health, and property ownership. Friendship, intimacy, family, sense of connection form the love and belonging needs, respect, and self-esteem, status. Being recognized in the society, being strong, and having freedom from external factors are part of the esteem needs. Simultaneously, the desire to become the most that one can become is the self-actualization needs.

When conducive, adequate, and appropriate classrooms are available, a portion of the first and second levels of the hierarchy of needs will be met for the pupils. It will provide shelter for them in school, that is, fulfilling the physiological needs. It will give them a feeling of being secured, fulfilling the safety needs. These two levels of needs are critical if the classroom's pedagogical process must be effective and efficient. When pupils are not feeling secure in a classroom due to dilapidated walls and leaking roofs, the school's aims and objectives can not be achieved. This may even cause more pupils to drop out of school because they will prefer to stay away from a place where they might be involved in an accident. When proper planning and implementation of efficient

classrooms are in place, more out-of-school children are likely to enroll in school, thereby increasing the achievement of the educational goals and objectives.

Education will also contribute to the achievement of Abraham Maslow's hierarchy of needs. So if the foundation, that is, primary education, is solid due to effective and efficient classrooms, the realization and achievement of all levels of the hierarchy can be enhanced. An educated person will have a better chance of having employment, food, shelter, property, good self-esteem, and respect.

Research questions

The following research questions were raised to guide the study: (1) how many pupils and classrooms are available in public primary schools in Southwestern, Nigeria, in the year 2020; (2) how many pupils will be in public primary schools in the study area from the year 2021 to 2024; (3) how we can determine/calculate the number of classrooms required for public primary schools in the study area from the year 2020 to 2024?

Methodology

The quantitative research design was used for the study. This study's population comprised 8401 public primary schools in Nigeria's six Southwestern states. The states consist of Lagos, Ogun, Oyo, Ekiti, Osun, and Ondo. The study sample comprised 1092 schools, using the Research Advisor. The purposive sampling technique was used to select three out of the six Southwestern states. The simple random sampling technique was employed in selecting the schools and their headteachers in each state. Three hundred and seventy (370), three hundred and fifty-seven (357), and three hundred and sixty-five (365) public primary schools and their headteachers were selected from Lagos, Ogun, and Oyo States, respectively, using the Research Advisor, which

makes 1092 schools. Two instruments were used to gather data for the study. These are an official education document and a questionnaire. An official document containing the primary data on pupils' flow was collected from Universal Basic Education Boards of Lagos, Oyo, and Ogun States to generate baseline enrolment figures to corroborate that the schools provided the data under investigation.

The questionnaire is titled "Primary School Pupils' Flow Questionnaire (PSPF-Q)", and it was used to elicit data on the number of pupils in the study area for the year 2020 and the number of classrooms physically available. The questionnaire was adapted from Adelokun & Adewole (2017). Therefore, the Primary School Pupils' Flow Questionnaire (PSPF-Q) was used to elicit data from headteachers on their pupils' flow from 2015/2016 session to 2020/2021 session.

Results and discussion

This section presents and discusses the findings of this study. In particular, we present a detailed description of this study's findings in line with the research questions in separate sub-sections.

Determining the number of pupils and classrooms public primary schools (RQ1)

This subsection seeks to answer *RQ1*: How many pupils and classrooms are available in public primary schools in Southwestern Nigeria in 2020?.

Table 1 shows the number of pupils and the number of classrooms in Southwestern Nigeria in 2020. In Ogun state, there are 445,583 pupils in public primary schools, and there are 10,612 available classrooms. There are 414,621 pupils in Lagos state, and there are 10,833 available classrooms, while in Oyo state, there are 490,410 pupils and 14,060 classrooms. The mean or average number of pupils per state is 450,205, while the average number of classrooms

per state is 11,835, which means pupils' ratio to classrooms in Southwestern states in Nigeria is 38:1.

Table 1. Number of pupils and classrooms in Southwestern Nigeria (the year 2020)

State	Number of Pupils	No of available classrooms	Ratio
Ogun	445,583	10,612	42:1
Lagos	414,621	10,833	38:1
Oyo	490,410	14,060	35:1
Total	1,350,614	35,505	38:1
Mean	450,205	11,835	38:1

Source: Fieldwork (2020)

Determining and projecting the number of pupils in the study area (RQ2)

This subsection seeks to answer *RQ2*: How many pupils will be in public primary schools in the study area from 2021 to 2024?

This research question aims to project the number of public primary school pupils in Southwestern Nigeria from 2020 to 2024. There are a couple of steps that must be followed to do this. The first step was to find the average annual rate of change in the Southwestern Nigeria population. This was achieved by using the census reports of the years 1991 and 2006, as shown in Tables 2 and 3, respectively.

Table 2. The population of southwestern states for 2006

SN	State	Population
1	Lagos	9,013,534
2	Ogun	3,728,098
3	Oyo	5,591,589
	Total	18,333,221
	Mean	6,111,074

Source: Census Report (2006)

Table 3. The population of southwestern states for 1991

SN	State	Population
1	Lagos	5,685,785
2	Ogun	2,338,570
3	Oyo	3,488,789
	Total	11,513,144
	Mean	3,837,715

Source: Census Report, (1991)

The second step was to use the compounding technique shown to calculate the number of pupils in the public schools from 2020 to 2024. Consequently, the mean population of the year 2006 census for Nigerian Southwestern states were computed as 6,111,074 while that of the year 1991 was 3,837,715. Therefore, the Southwest's average annual rate of population change can be computed with Eq. (1):

$$r = \left(\frac{\left(\frac{p_2 - p_1}{p_1} \times 100 \right)}{n} \right) - U \quad (1)$$

where r = average annual rate of change in population; P_2 = mean population of the recent census (2006) = 6,111,074; P_1 = mean population of the last two census seasons (1991) = 3,837,715; n = number of years between the two censuses = 15 years; U = error term = 0.7.

Thus:

$$r = \left(\frac{\left(\frac{6,111,07 - 3,837,715}{3,837,715} \times 100 \right)}{15} \right) - 0.7$$

$$r = 3.949153771 - 0.7; r = 3.25 \%$$

The computation gave 3.25%. This average annual rate of population change is useful for projecting years ahead. The compounding technique was used to calculate the number of pupils that will be in public primary schools in Southwestern Nigeria for the number of years under investigation. The compounding technique is notionally defined in Expression (2):

$$A(1 + r)^n \quad (2)$$

where A = number of pupils in the year 2020; r = average annual rate of population change; n = number of years.

For this study, $r = 3.25\% = 3.25 / 100 = 0.0325$; $n = 2021 - 2020 = 1$ year; $n = 2022 - 2020 = 2$ years; $n = 2023 - 2020 = 3$ years; $n = 2024 - 2020 = 4$ years.

The computation of the number of pupils that will be in public primary schools in the study area from the year 2020 to 2024 is shown in Table 4. As Table 4 reflects, the number of pupils in Lagos State in 2020 is 414,621. In Ogun State, it is 445,583 and 490,410 in Oyo state. Also, the projected number of pupils in Lagos State in 2021 is 428,096. In Ogun State, it is 460,064, and in Oyo State, it is 506,348 pupils. For the year 2022, the projected number of pupils in Lagos state will be 442,009; in Ogun, it will be 475,017, while in Oyo state, the number will be 522,805. For the year 2023, the number of pupils that will be in Lagos state will be 456,375, for Ogun state, it will be 490,455, and in Oyo state, the number will be 539,796 pupils. In the year 2024, the projected number of pupils for Lagos state is 471,207. The projected number for Ogun state is 506,394, and the number for Oyo state is 557,339.

The total number of pupils for the states under investigation in 2020 is 1,350,614; for 2021, it is 1,394,508. The total number equals 1,439,831 for the year 2022. For year 2023, it is 1,486,626 and for year 2024, it is 1,534,940. The mean number for the year 2020 is 450,205. The mean number for the year 2021 is 464,836. It is 479,944 for the year 2022, and it is 495,542 for the year 2023, while it is 511,647 in the year 2024. The mean number shows the average

number of pupils for each state in Southwestern Nigeria. This means that in 2020, individual states in Southwestern Nigeria have an average of 450,205 pupils.

Table 4. Projected number of pupils for Southwestern Nigeria (2020-2024)

State	Lagos	Ogun	Oyo	Total	Mean
No. of pupils in 2020	414,621	445,583	490,410	1,350,614	450,205
Projected No. of pupils in 2021	428,096	460,064	506,348	1,394,508	464,836
Projected No. of pupils in 2022	442,009	475,017	522,805	1,439,831	479,944
Projected No. of pupils in 2023	456,375	490,455	539,796	1,486,626	495,542
Projected No. of pupils in 2024	471,207	506,394	557,339	1,534,940	511,647

Source: Fieldwork (2020)

Therefore, Southwestern states will have an average of 464,836 pupils in the year 2021, an average of 479,944 pupils in 2022, 495,542 pupils in the year 2023, and an average number of 511,647 pupils in the year 2024.

Determining the expected and required number of classrooms in the study area (RQ3)

This subsection seeks to answer *RQ3*: How can we determine/calculate the number of classrooms required for public primary schools in the study area from 2020 to 2024?

To calculate the number of classrooms required or that should be built from the year 2020 to 2024, the expected number of classrooms for those periods of years must be calculated first. Thus, Table 5 shows the expected number of classrooms based on the number of pupils calculated in RQ2 and based on the official number of pupils in a classroom.

Thirty (30) pupils are meant to be in a classroom, as stated by the Federal Government of Nigeria's (FGN) Decree 16 of 1985 on minimum standards for primary and secondary schools (FME, 2002). The document revealed that the ideal number of pupils per classroom is 30, the optimal number is 35, while the

maximum number is 40 in the year the document was published, that is, 2002. However, it was stated in the document that the ideal number of 30 pupils per classroom should be achieved in the next ten (10) years, that is, in the year 2012. So, since we have passed the year 2012 and this computation is for the year 2020 to 2024, the ideal number of 30 pupils was used for the computation.

Table 5. Expected number of classrooms from the years 2020 to 2024

State	Lagos	Ogun	Oyo	Total	Mean
No. of pupils in 2020	414,621	445,583	490,410	1,350,614	450,205
Expected No. of classrooms in 2020	13,821	14,853	16,347	45,021	15,007
Projected No. of pupils in 2021	428,096	460,064	506,348	1,394,508	464,836
Expected No. of classrooms in 2021	14,270	15,335	16,878	46,483	15,494
Projected No. of pupils in 2022	442,009	475,017	522,805	1,439,831	479,944
Expected No. of classrooms in 2022	14,734	15,834	17,427	47,995	15,998
Projected No. of pupils in 2023	456,375	490,455	539,796	1,486,626	495,542
Expected No. of classrooms in 2023	15,213	16,349	17,993	49,555	16,518
Projected No. of pupils in 2024	471,207	506,394	557,339	1,534,940	511,647
Expected No. of classrooms in 2024	15,707	16,880	18,578	51,165	17,055

Source: Fieldwork (2020)

As shown in Table 5, the number of pupils was used to divide 30 (ideal number of pupils per classroom). The ratio (3) was used to determine the expected number of classrooms.

$$p/n \quad (3)$$

where p = projected number of pupils, and n = 30

The expected number of classrooms for Lagos state in the year 2020 is 13,821. For Ogun state, the number is 14,853, while for Oyo state, it is 16,347.

For the year 2021, the expected number of classrooms for Lagos state is 14,270, for Ogun state, it is 15,335, and 16,878 for Oyo state. In the year 2022, the number will be 14,734, 15,834 for Ogun, and 17,427 for Oyo state. In the year 2023, the number will be 15,213, 16,349 in Ogun, and 17,993 in Oyo state. In the year 2024, the number will be 15,707, 16,880, and 18,578 in Lagos, Ogun, and Oyo states, respectively.

The total expected number is 45,021 in the year 2020. It will be 46,483 in the year 2021, 47,995 in the year 2022, 49,555 in the year 2023, and 51,165 in the year 2024.

The average expected number of classrooms in the year 2020 is 15,007. This implies that all states in Southwestern Nigeria have an average expected number of classrooms to be 15,007 in the year 2020. For the year 2021, the number is 15,494, for the year 2022, it is 15,998, for the year 2023, it is 16,518, and 17,055 in the year 2024. This means that all the Southwestern states considered for this study (Lagos, Ogun, and Oyo states) have an average expected number of classrooms for the years under consideration to guide proper planning.

Having considered the expected number of classrooms, there is a need to calculate the number of classrooms required and be constructed to achieve the appropriate number of classrooms in Southwestern Nigeria. Table 6 shows the number of classrooms required and needs to be constructed from 2020 to 2024. This was achieved by subtracting the number of classrooms available from the expected number.

Table 6 reveals that the number of classrooms required and should be constructed in Lagos State in the year 2020 is 2,988. In Ogun and Oyo states, it is 4,241 and 2,287, respectively. If no classroom is constructed in the year 2020, 3,437 classrooms should be constructed in Lagos in the year 2021, 4,723 classrooms in Ogun state, and 2,818 classrooms in Oyo state. Also, if no classroom is constructed in the years 2020 and 2021, more classrooms are required for construction in the year 2022. In particular, 3,901 more classrooms

should be constructed in Lagos state, 5,222 in Ogun state, and 3,367 classrooms should be constructed in Oyo state. For the year 2023, 4,380 classrooms need to be constructed in Lagos state if none was built between 2020 and 2022. In Ogun and Oyo states, 5,737 and 3,933 classrooms should be built in the year 2023, respectively. Also, suppose no classroom was built between the years 2020 to 2023. In that case, the following number of classrooms should be built in the year 2024: (i) 4,874 in Lagos state, (ii) 6,268 in Ogun state, and (iii) 4,518 in Oyo state.

Table 6. Number of more classrooms required from the year 2020 to 2024

State	Lagos	Ogun	Oyo	Total	Mean
Expected No. of classrooms in 2020	13,821	14,853	16,347	45,021	15,007
No. of more classrooms required in 2020	2,988	4,241	2,287	9,516	3,172
Expected No. of classrooms in 2021	14,270	15,335	16,878	46,483	15,494
No. of more classrooms required in 2021	3,437	4,723	2,818	10,978	3,659
Expected No. of classrooms in 2022	14,734	15,834	17,427	47,995	15,998
No. of more classrooms required in 2022	3,901	5,222	3,367	12,490	4,163
Expected No. of classrooms in 2023	15,213	16,349	17,993	49,555	16,518
No. of more classrooms required in 2023	4,380	5,737	3,933	14,050	4,683
Expected No. of classrooms in 2024	15,707	16,880	18,578	51,165	17,055
No. of more classrooms required in 2024	4,874	6,268	4,518	15,660	5,220

Source: Fieldwork (2020)

The total number of classrooms that are required and should be built in the states under investigation for the year 2020 equals 9,516; for the year 2021, it is 10,978; for the year 2022, it equals 12,490, for the year 2023, it equals 14,050, and for the year 2024, it is 15,660.

The average number of classrooms required in the year 2020 is 3,172, for the year 2021, it is 3,659 for the year 2022, it equals 4,163, for the year 2023, it equals 4,683, and for the year 2024, it is 5,220. This implies that each state of Southwestern Nigeria requires an average number of classrooms for the number of years under investigation, as seen above. As shown in Table 6, each state has the mean values calculated for the expected number of classrooms and the required number of classrooms to be constructed from the year 2020 to 2024.

Recommendations

Based on the findings of the study, the following recommendations were made: (1) More classrooms should be built periodically in public primary schools in Southwestern Nigeria to accommodate more pupils and also to achieve a maximum of 30 pupils per classroom at every point in time; (2) A good maintenance culture should be inculcated in public primary schools in order to reduce the rate at which classroom buildings dilapidate due to poor maintenance; (3) The government can fund the construction of the needed number of classrooms from all or some of the beneficiaries of education, as posited by Gambo & Fasanmi (2019). Thus, apart from the government, parents/guardians, organizations in and outside the country, individuals/citizens in the country who are beneficiaries of education are supposed to be part of funding education. Therefore, the construction of classrooms should be a collective effort of all beneficiaries of education. Since it is not only the government that benefits from the education of the citizens, the burden of funding and constructing classrooms can be borne by willing beneficiaries; (4) Also, the classrooms available should be adequately taken care of by the pupils, teachers,

and all education stakeholders in order to eradicate the wastage of resources; (5) Overcrowded classrooms will go into extinction in Southwestern Nigeria if the number of classrooms estimated in this work is built and projections are continuously made for the future; (6) More teachers are needed for the classrooms that will be constructed. For every classroom that will be constructed, there should be teachers who will handle the pupils in the class to achieve optimal utilization of the classrooms.

Conclusion and future work

The results of this research will aid the achievement of a maximum of 30 pupils per classroom from the year 2020 to 2024. The number of drop-outs and out-of-school children will reduce if the number of classrooms required is made available. This is because pupils will feel more secured and comfortable in classrooms that are neither over-crowded nor dilapidated.

Drop-outs and out-of-school children could result from pupils not feeling secured in over-crowded and/or dilapidated classrooms. It is logical to think that the fear of the building collapsing on them could contribute to the high number of out-of school-children in Nigeria, especially in the Southwestern region of the state. Therefore, this research will reduce the number of out-of-school children when children and parents begin to feel secure due to the availability of an adequate number of classrooms in good conditions.

NOTES

1. <http://sarahlipoff.com/2011/12/05/environmental-learning-theory-stuff-vs-your-child/>
2. https://cprtrust.org.uk/wpcontent/uploads/2013/10/Primary_Review_Community_Soundings_report.pdf
3. <https://www.thoughtco.com/maslows-hierarchy-of-needs-4582571>

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