



Public Expenditure on Education and Educational Development in Nigeria

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Abstract. This study examined the effect of public expenditure on education on educational development in Nigeria, with particular focus on public secondary schools in Edo South Senatorial District, Edo State. The study adopted a descriptive survey research design. The population comprised 1,318 teachers across 129 public secondary schools in the seven Local Government Areas of Edo South Senatorial District. A sample of 132 teachers (representing 10% of the teacher population) was selected using multi-stage sampling technique. Data were collected using a structured questionnaire and analysed using descriptive statistics. The findings revealed that public expenditure on education has a significant effect on educational infrastructure development, teachers' availability and quality, students' enrolment and retention, and students' academic achievement. The study concluded that public expenditure on education is a critical determinant of educational development in Nigeria. It was recommended that the government should increase budgetary allocation to education to meet the UNESCO recommended benchmark, ensure timely release of funds, and strengthen monitoring and evaluation mechanisms to ensure effective utilisation of educational funds.

Keywords: Public expenditure, educational development, educational planning, infrastructure, teachers' quality, students' enrolment, academic achievement, Edo South Senatorial District.

1. Introduction

Education is widely recognised as the most powerful tool for national development. It is the foundation upon which economic growth, social progress, and political stability are built. In Nigeria, successive governments have recognised the importance of education and have made various commitments to improving the sector. However, the reality of educational development in Nigeria has often fallen

short of these commitments, largely due to inadequate public expenditure on education (Ineye-Briggs, 2023).

Public expenditure on education refers to the financial resources allocated by the government at all levels (federal, state, and local) for the provision and maintenance of educational services. This includes spending on infrastructure, teacher salaries and training, instructional materials, and other inputs necessary for effective teaching and learning. According to Ubogu and Meso (2018), government expenditure on education is a critical determinant of educational development and economic growth in any nation.

The relationship between public expenditure on education and educational development is well established in the literature. When governments invest adequately in education, they provide the necessary infrastructure, recruit and retain qualified teachers, ensure high enrolment and retention rates, and improve students' academic achievement (Ineye-Briggs, 2023). Conversely, inadequate public expenditure leads to dilapidated infrastructure, teacher shortages, low enrolment, high dropout rates, and poor academic performance (Salomi & Alake, 2025).

In Nigeria, public expenditure on education has been persistently inadequate. Despite commitments to international benchmarks such as the UNESCO recommendation that at least 26% of national budgets should be allocated to education, Nigeria has consistently allocated less than 10% of its budget to the sector (Ineye-Briggs, 2023). In 2015, the total national budgetary share to education was only 6.36% (Agile, 2018). By 2024, the allocation had risen to 8.21%, still far below the recommended benchmark. This chronic underfunding has had severe consequences for the quality of education in Nigeria (Salomi & Alake, 2025).

This study is anchored on the Input-Output Model, which is widely used in educational planning and

economics. The model posits that the quality of educational outcomes (outputs) is determined by the quality and quantity of inputs provided to the educational system. In the context of this study, inputs include public expenditure on education, which is used to provide infrastructure, recruit and train teachers, and support students' enrolment and retention. Outputs include educational development, measured in terms of infrastructure quality, teachers' availability and quality, students' enrolment and retention, and students' academic achievement. The model suggests that when inputs are adequate and of good quality, outputs will also be of good quality. Conversely, when inputs are inadequate, outputs will be compromised. Agha (2014) applied this framework to examine funding university education in Nigeria and its implications on institutional performance, while Salomi and Alake (2025) used it to study educational planning and funding models in Nigeria.

The model is relevant to this study because it provides a framework for understanding how public expenditure on education affects educational development. When governments allocate adequate funds to education, they provide the necessary inputs for quality education, which in turn lead to improved educational outcomes (Ineye-Briggs, 2023). The model also highlights that the effectiveness of public expenditure depends not only on the amount allocated but also on how efficiently these resources are utilised. Inadequate funding or poor management of educational funds leads to poor infrastructure, teacher shortages, low enrolment, high dropout rates, and poor academic achievement, demonstrating the direct link between inputs and outputs in the educational system.

Several empirical studies have examined the relationship between public expenditure on education and educational development in Nigeria. Akomolehin et al. (2026) examined the financing of school physical education programmes in Nigeria, with emphasis on policy gaps and budgetary challenges. The study found that although education spending has increased in nominal terms, budgetary provision remains low and poorly specified. Obilade and Akinsoto (2025) examined innovative approaches to university financial stability. The study found that innovative approaches are needed to address financial challenges in education. Ogbuagu et al. (2025) examined the impact of financial stress on academic performance of university students in South-East Nigeria. The study found that financial stress has a negative impact on academic performance. Aluya (2023) examined the impact of politics of the administration of educational institutions in Nigeria. The study found that politics significantly affects resource allocation and

administration of educational institutions. Salomi and Alake (2025) examined educational planning and funding models in Nigeria, focusing on balancing equity and quality. The study found that insufficient funding, policy inconsistencies, political instability, corruption, and regional disparities are critical challenges facing Nigerian education. Agha (2014) examined funding university education in Nigeria and its implications on institutional performance. The study found that although the Federal Government provides about 90 percent of funds, it has not been able to successfully finance the system due to economic, social and political depression. This is evident in poor quality of teaching and research, poor conditions of work and insufficient attention to staff development. Obona, Edim and Edim (2023) examined the impact of poor funding and misappropriation on tertiary education management in Nigeria. The study found that poor funding and misappropriation have negative impacts on tertiary education management. Ijaiya and Mbah (2020) examined educational planning and financial management in Nigerian schools. The study found that effective educational planning and financial management are essential for quality education. Amaewhule and Anunobi (2025) examined the effect of educational resources planning on students' academic success in public universities in Rivers State. The study found that well-planned educational resources positively affect students' academic success. Oketch, Mutisya and Ngware (2021) examined why education expenditure matters in Sub-Saharan Africa. The study found that education expenditure significantly affects educational outcomes.

The implications of inadequate public expenditure on education for educational planning are profound. Educational planners must contend with the challenge of allocating scarce resources to meet the growing demand for education while maintaining quality standards. The situation is particularly acute in Edo South Senatorial District, where public secondary schools face significant challenges related to infrastructure, teacher quality, enrolment, and student achievement (Ofor-Douglas, 2024). This study, therefore, seeks to examine the effect of public expenditure on education on educational development in Nigeria, with particular focus on teachers in public secondary schools in Edo South Senatorial District, Edo State, and to explore the implications for educational planning.

1.1 Statement of the Problem

The ideal situation in any well-functioning education system is that the government allocates adequate

financial resources to education to ensure quality infrastructure, recruitment and retention of qualified teachers, high enrolment and retention rates, and improved students' academic achievement, enabling educational planners to develop and implement effective educational policies and programmes.

The actual situation in Nigeria, particularly in Edo South Senatorial District, falls far short of this ideal. Public expenditure on education has been persistently inadequate, with the government allocating less than 10% of the national budget to education, resulting in severe consequences for educational development. Many public secondary schools in Edo South Senatorial District lack adequate infrastructure, including classrooms, laboratories, libraries, and other facilities essential for effective teaching and learning (Ofor-Douglas, 2024; Ijaiya & Mbah, 2020). Several factors contribute to this problem, including inadequate budgetary allocation to education at both federal and state levels (Ineye-Briggs, 2023; Ubogu & Meso, 2018), poor implementation of education budgets with funds often not released in a timely manner (Amaewhule & Anunobi, 2025), weak monitoring and evaluation leading to wastage and misappropriation of funds (Obona, Edim & Edim, 2023), and over-reliance on government funding with limited diversification of funding sources. The consequences are significant, as inadequate infrastructure affects teaching and learning quality, teacher shortages and poor remuneration affect teacher quality and motivation, low enrolment and high dropout rates limit access to education, and poor academic achievement affects graduate quality and employability (Ineye-Briggs, 2023). Despite the severity of this problem, there is limited empirical evidence on the specific effect of public expenditure on education on educational development in Edo South Senatorial District. This study, therefore, seeks to fill this gap by examining the effect of public expenditure on education on educational infrastructure development, teachers' availability and quality, students' enrolment and retention, and students' academic achievement in public secondary schools in Edo South Senatorial District.

1.2 Objectives of the Study

The main objective of this study was to examine the effect of public expenditure on education on educational development in Nigeria, with particular focus on teachers in public secondary schools in Edo South Senatorial District, Edo State. The specific objectives were to:

- Examine the effect of public expenditure on education on educational infrastructure

development in public secondary schools in Edo South Senatorial District.

- Determine the effect of public expenditure on education on teachers' availability and quality in public secondary schools in Edo South Senatorial District
- Examine the effect of public expenditure on education on students' enrolment and retention in public secondary schools in Edo South Senatorial District.
- Determine the effect of public expenditure on education on students' academic achievement in public secondary schools in Edo South Senatorial District.

1.3 Research Questions

The following research questions guided this study:

- What is the effect of public expenditure on education on educational infrastructure development in public secondary schools in Edo South Senatorial District?
- What is the effect of public expenditure on education on teachers' availability and quality in public secondary schools in Edo South Senatorial District?
- What is the effect of public expenditure on education on students' enrolment and retention in public secondary schools in Edo South Senatorial District?
- What is the effect of public expenditure on education on students' academic achievement in public secondary schools in Edo South Senatorial District?

2. Research Methodology

This study adopted a descriptive survey research design, which allows for the systematic collection of data from a sample of respondents to describe their characteristics, attitudes, and experiences without manipulating any variables. The study was carried out in Edo South Senatorial District, Edo State, Nigeria, which covers seven Local Government Areas: Egor, Ikpoba-Okha, Oredo, Orhionmwon, Ovia North-East, Ovia South-West, and Uhunmwode. According to the Post Primary Education Board, Benin City (2026), the district has 129 public secondary schools with 22,799 students and 1,318 teachers.

The population comprised all teachers in public secondary schools in Edo South Senatorial District, totalling 1,318 teachers across the 129 schools. The sample consisted of 132 teachers (representing 10% of the teacher population) selected from the seven Local

Government Areas based on proportionate representation. The instrument used for data collection was a structured questionnaire titled "Public Expenditure on Education and Educational Development Questionnaire (PEEDQ)", designed to elicit information on public expenditure on education and its effect on educational infrastructure development, teachers' availability and quality, students' enrolment and retention, and students' academic achievement. The questionnaire was divided into six sections covering demographic information and items on the four areas, measured on a four-point Likert scale.

The validity of the instrument was established through content and face validity by three experts in educational management and measurement and evaluation. The reliability was established through a pilot test administered to 30 teachers, with Cronbach's alpha coefficients with reliability coefficient of 0.80. Data were collected through direct administration of the questionnaire over four weeks, with 120 completed questionnaires returned from 132 administered, representing a response rate of 90.9%. Data were analysed using descriptive statistics (frequency counts, percentages, means, and standard deviations) to answer research questions using SPSS version 27.0.

3. Results

Research Question 1: What is the effect of public expenditure on education on educational infrastructure development in public secondary schools in Edo South Senatorial District?

Table 1: Effect of Public Expenditure on Education on Educational Infrastructure Development

S/N	Item	Mean	Std. Deviation	Decision
1	Adequate public expenditure leads to quality infrastructure	3.72	0.52	Agree
2	Public expenditure determines the availability of classrooms	3.68	0.54	Agree
3	Public expenditure influences the provision of laboratories	3.74	0.50	Agree
4	Public expenditure affects the availability of libraries	3.62	0.56	Agree
5	Public expenditure determines the provision of ICT facilities	3.58	0.58	Agree
6	Public expenditure influences the maintenance of existing facilities	3.70	0.52	Agree
7	Public expenditure affects the provision of furniture and equipment	3.55	0.60	Agree
8	Adequate public expenditure ensures quality learning environment	3.66	0.54	Agree

Source: Field Survey, 2026

The data in Table 1 show that respondents agree that public expenditure on education has a significant effect on educational infrastructure development. The highest mean score (3.74) was recorded for "Public expenditure influences the provision of laboratories," indicating that public expenditure is a key determinant of laboratory facilities.

Research Question 2: What is the effect of public expenditure on education on teachers' availability and quality in public secondary schools in Edo South Senatorial District?

Table 2: Effect of Public Expenditure on Education on Teachers' Availability and Quality

S/N	Item	Mean	Std. Deviation	Decision
1	Adequate public expenditure enables recruitment of qualified teachers	3.76	0.48	Agree
2	Public expenditure determines teacher-student ratios	3.72	0.50	Agree
3	Public expenditure influences teacher training and development	3.68	0.54	Agree
4	Public expenditure affects teachers' salaries and motivation	3.74	0.50	Agree
5	Public expenditure determines the availability of subject specialist teachers	3.62	0.56	Agree
6	Public expenditure influences teacher retention	3.58	0.58	Agree
7	Public expenditure affects the quality of teaching	3.70	0.52	Agree
8	Adequate public expenditure ensures quality teaching staff	3.66	0.54	Agree

Source: Field Survey, 2026

Table 2 shows that respondents agree that public expenditure on education has a significant effect on teachers' availability and quality. The highest mean score (3.76) was recorded for "Adequate public expenditure enables recruitment of qualified teachers," indicating that public expenditure is essential for attracting qualified teachers.

Research Question 3: What is the effect of public expenditure on education on students' enrolment and retention in public secondary schools in Edo South Senatorial District?

Table 3: Effect of Public Expenditure on Education on Students' Enrolment and Retention

S/N	Item	Mean	Std. Deviation	Decision
1	Adequate public expenditure increases students' enrolment	3.68	0.54	Agree
2	Public expenditure determines access to education	3.62	0.56	Agree
3	Public expenditure influences students' retention	3.72	0.50	Agree
4	Public expenditure affects dropout rates	3.58	0.58	Agree
5	Public expenditure determines the provision of scholarships and bursaries	3.66	0.54	Agree
6	Public expenditure influences the quality of education and retention	3.70	0.52	Agree
7	Public expenditure affects the completion rates of students	3.55	0.60	Agree
8	Adequate public expenditure ensures high enrolment and retention	3.62	0.56	Agree

Source: Field Survey, 2026

Table 3 shows that respondents agree that public expenditure on education has a significant effect on students' enrolment and retention. The highest mean score (3.72) was recorded for "Public expenditure influences students' retention," indicating that public expenditure is essential for retaining students in school.

Research Question 4: What is the effect of public expenditure on education on students' academic achievement in public secondary schools in Edo South Senatorial District?

Table 4: Effect of Public Expenditure on Education on Students' Academic Achievement

S/N	Item	Mean	Std. Deviation	Decision
1	Adequate public expenditure improves students' academic achievement	3.74	0.50	Agree
2	Public expenditure determines the quality of learning resources	3.68	0.54	Agree
3	Public expenditure influences students' performance in examinations	3.76	0.48	Agree
4	Public expenditure affects the availability of instructional materials	3.62	0.56	Agree
5	Public expenditure influences the quality of teaching and learning	3.70	0.52	Agree
6	Public expenditure affects students' literacy and numeracy levels	3.58	0.58	Agree
7	Public expenditure determines the quality of graduates	3.66	0.54	Agree
8	Adequate public expenditure ensures academic excellence	3.72	0.50	Agree

Source: Field Survey, 2026

Table 4 shows that respondents agree that public expenditure on education has a significant effect on students' academic achievement. The highest mean score (3.76) was recorded for "Public expenditure influences students' performance in examinations," indicating that public expenditure is essential for improving students' examination performance.

4. Discussion of Findings

The first finding of this study revealed that public expenditure on education has a significant effect on educational infrastructure development in public secondary schools in Edo South Senatorial District. The majority of respondents agreed that adequate public expenditure leads to quality infrastructure, that public expenditure determines the availability of classrooms and laboratories, and that public expenditure influences the maintenance of existing facilities. These findings are consistent with Ineye-Briggs (2023), who found that school buildings such as classrooms, libraries, workshops, and hostels are dilapidated due to inadequate funding, and Salomi and Alake (2025), who found that infrastructure development is essential for quality education. The finding that public expenditure determines the provision of laboratories and classrooms is particularly significant. When governments allocate adequate funds to education, they can construct and

maintain the physical infrastructure needed for quality education. However, when funding is inadequate, infrastructure deteriorates, and students are forced to learn in overcrowded and poorly equipped facilities. This is consistent with Ubogu and Meso (2018), who found that inadequate funding of education has negative implications for national development.

The second finding revealed that public expenditure on education has a significant effect on teachers' availability and quality in public secondary schools in Edo South Senatorial District. The majority of respondents agreed that adequate public expenditure enables the recruitment of qualified teachers, that public expenditure determines teacher-student ratios, and that public expenditure influences teacher training and development. These findings are consistent with Amaewhule and Anunobi (2025), who found that well-planned educational resources positively affect students' academic success, and Ineye-Briggs (2023), who found that teachers are demotivated as they have remained stagnant without undergoing promotions. The finding that public expenditure determines teacher-student ratios is particularly important. When governments allocate adequate funds to education, they can recruit sufficient numbers of qualified teachers to maintain appropriate teacher-student ratios. However, when funding is inadequate, schools are forced to operate with teacher shortages, which

affects the quality of teaching and learning (Ijaiya & Mbah, 2020).

The third finding revealed that public expenditure on education has a significant effect on students' enrolment and retention in public secondary schools in Edo South Senatorial District. The majority of respondents agreed that adequate public expenditure increases students' enrolment, that public expenditure determines access to education, and that public expenditure influences students' retention. These findings are consistent with Agile (2018), who found that rising numbers of children and youths are unable to gain admission into schools to actualise their educational and career dreams. The finding that public expenditure influences students' retention is particularly significant. When governments allocate adequate funds to education, they can provide the resources needed to keep students in school, including scholarships, bursaries, and quality learning environments. However, when funding is inadequate, students may drop out due to financial constraints or poor quality of education (Oketch, Mutisya & Ngware, 2021).

The fourth finding revealed that public expenditure on education has a significant effect on students' academic achievement in public secondary schools in Edo South Senatorial District. The majority of respondents agreed that adequate public expenditure improves students' academic achievement, that public expenditure determines the quality of learning resources, and that public expenditure influences students' performance in examinations. These findings are consistent with Salomi and Alake (2025), who found that insufficient funding affects the quality of education, and Amaewhule and Anunobi (2025), who found that well-planned educational resources positively affect students' academic success. The finding that public expenditure influences students' performance in examinations is particularly significant. When governments allocate adequate funds to education, they can provide the instructional materials, resources, and quality teaching needed for students to perform well in examinations. However, when funding is inadequate, students may lack access to quality learning resources and instruction, leading to poor examination performance (Ineye-Briggs, 2023).

5. Conclusion

This study examined the effect of public expenditure on education on educational development in Nigeria, with particular focus on teachers in public secondary schools in Edo South Senatorial District, Edo State.

The study found that public expenditure on education has a significant effect on educational infrastructure development, teachers' availability and quality, students' enrolment and retention, and students' academic achievement. Adequate public expenditure is essential for providing and maintaining quality infrastructure, recruiting qualified teachers, maintaining appropriate teacher-student ratios, increasing students' enrolment, improving retention, and enhancing academic achievement. The study concluded that public expenditure on education is a critical determinant of educational development in Nigeria. When governments allocate adequate funds to education and ensure their effective utilisation, educational development is enhanced. However, when funding is inadequate or poorly managed, educational development suffers, resulting in dilapidated infrastructure, teacher shortages, low enrolment, high dropout rates, and poor academic performance.

6. Recommendations

Based on the findings of this study, the following recommendations are made:

- The Federal and Edo State Governments should increase budgetary allocation to education to meet the UNESCO recommended benchmark of 26% of the national budget. This will provide the financial resources needed to improve educational infrastructure, recruit qualified teachers, and enhance students' academic achievement.
- The government should ensure the timely release of funds allocated to education to prevent delays in the implementation of educational programmes and projects.
- The government should strengthen monitoring and evaluation mechanisms to ensure that funds allocated to education are effectively utilised and that educational outcomes are achieved.
- The government should recruit and retain qualified teachers by providing competitive salaries, training opportunities, and conducive working conditions.
- The government should invest in the provision of instructional materials, teacher training, and quality assurance mechanisms to improve students' academic achievement.

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