

# A Multidimensional Approach to Improving Secondary School Students' Academic Performance in Nigeria: Evidence from Lagos State

DR. OSBERT E. ITA (PH. D)

*Economics/Commercial Department, Prudence City College, Yaba, Lagos*

*Abstract- This study examines the determinants of students' academic performance in senior secondary schools in Lagos State, Nigeria, using a multidimensional analytical framework. Drawing on Systems Theory, Herzberg's Motivation-Hygiene Theory, and Bloom's Mastery Learning Model, the study investigates the combined effects of administrative, instructional, motivational, and environmental factors on learning outcomes. A descriptive survey design was employed, with data collected from 286 respondents comprising principals, teachers, and students across public and private schools. Data were analysed using descriptive statistics and independent samples t-tests. Findings indicate that administrative ( $t = 4.32, p < 0.05$ ), instructional ( $t = 3.95, p < 0.05$ ), motivational ( $t = 3.72, p < 0.05$ ), and environmental ( $t = 4.05, p < 0.05$ ) factors all exert statistically significant influence on students' academic performance. The results highlight the limitations of single-factor interventions and underscore the importance of integrated, system-level strategies. The study contributes to the literature by providing empirical evidence from a major African urban education system and by advancing a context-sensitive framework for improving learning outcomes in developing countries.*

**Keywords:** *Academic performance; secondary education; educational leadership; motivation; Nigeria*

## I. INTRODUCTION

Improving learning outcomes remains a central challenge in education systems across developing countries. Despite significant progress in expanding access to schooling, many students fail to acquire foundational skills, leading to what has been widely described as a global learning crisis (World Bank, 2020; UNESCO, 2022).

In Nigeria, secondary education is critical for human capital development, yet students' performance in national examinations remains inconsistent. Lagos

State, as Nigeria's largest urban centre, presents a complex educational landscape characterised by high enrolment, diverse school ownership, and varying resource availability.

Previous studies have examined factors influencing academic performance, including teacher quality, school leadership, and infrastructure. However, these studies often adopt single-variable approaches, overlooking the systemic nature of educational outcomes. Schools function as interconnected systems, and improvements in one area may be constrained by weaknesses in others.

This study addresses this gap by examining the combined effects of administrative, instructional, motivational, and environmental factors on students' academic performance. It contributes to the literature by offering a multidimensional framework and empirical evidence from a key African context.

## II. LITERATURE REVIEW

### 2.1 Academic Performance and the Learning Crisis

The global shift from access to learning outcomes has highlighted deficiencies in education systems across developing regions. Evidence suggests that increased enrolment has not been matched by improvements in learning quality (World Bank, 2020). This underscores the need for systemic interventions.

### 2.2 School Leadership and Administration

Effective school leadership is consistently associated with improved student outcomes (Leithwood et al., 2020). Administrative practices such as supervision, accountability, and resource allocation shape the conditions under which teaching and learning occur.

### 2.3 Instructional Practices

Instructional quality is a primary determinant of student achievement. Research indicates that learner-centred approaches, formative assessment, and adaptive teaching strategies enhance student understanding (Hattie, 2018; Darling-Hammond et al., 2020).

### 2.4 Motivation and Engagement

Motivation influences both teaching effectiveness and student engagement. Herzberg's theory suggests that both intrinsic and extrinsic factors are necessary for sustained performance. Empirical studies confirm that motivated students demonstrate higher academic achievement (Schunk, 2020).

### 2.5 Learning Environment

The physical and psychosocial environment of schools affects students' ability to learn. Adequate infrastructure, instructional materials, and safe learning spaces are essential for effective education delivery (UNESCO, 2022).

### 2.6 Research Gap

While these factors have been widely studied, existing research remains fragmented. There is limited empirical work examining their combined influence within a unified framework, particularly in the Nigerian context. This study addresses this gap.

## III. METHODOLOGY

A descriptive survey design was employed to examine relationships among variables. The sample consisted of 286 respondents selected through stratified random sampling. Data were collected using a structured questionnaire (SBSPQ), with a reliability coefficient of  $r = 0.86$ .

Data analysis involved descriptive statistics and independent samples t-tests at a 0.05 significance level. Ethical standards were observed, including voluntary participation and anonymity.

## IV. RESULTS

The results indicate statistically significant relationships between all variables and academic performance.

Variable	t-value	p-value
Administrative	4.32	<0.05
Instructional	3.95	<0.05
Motivational	3.72	<0.05
Environmental	4.05	<0.05

These findings confirm that academic performance is influenced by multiple interacting factors.

## V. DISCUSSION

The findings provide strong evidence that educational outcomes are shaped by interdependent system components rather than isolated variables. Administrative effectiveness enhances coordination and supervision, which indirectly supports instructional quality. Instructional practices directly influence learning processes, while motivation sustains engagement and effort.

These results align with prior studies highlighting the importance of leadership (Leithwood et al., 2020) and instructional quality (Hattie, 2018), but extend the literature by demonstrating their combined effect within a single framework.

Importantly, the findings suggest that reforms targeting only one dimension, such as infrastructure or teacher training, may produce limited results unless complemented by improvements in other areas. This reinforces the need for integrated policy approaches.

## VI. POLICY IMPLICATIONS

The study has significant implications for education policy:

- Policymakers should adopt holistic reform strategies addressing multiple system components
- Teacher development programmes should prioritise instructional effectiveness and innovation
- School leadership should be strengthened through accountability and supervision mechanisms

- Investment in learning environments and infrastructure should be increased
- Student support systems should be institutionalised to enhance motivation

## VII. CONCLUSION

This study demonstrates that students' academic performance is influenced by a combination of administrative, instructional, motivational, and environmental factors. Sustainable improvement requires coordinated, system-wide interventions rather than fragmented reforms.

## VIII. LIMITATIONS AND FUTURE RESEARCH

The study is limited by its cross-sectional design and reliance on self-reported data. Future research should adopt longitudinal and mixed-method approaches to deepen understanding of causal relationships.

## REFERENCE

- [1] Aremu, A. O. (2019). Academic performance determinants in secondary schools in Nigeria. *Journal of Educational Research and Development*, 14(2), 45–60.
- [2] Ayeni, A. J. (2018). Improving school and community partnership for sustainable quality assurance in secondary schools in Nigeria. *International Journal of Research Studies in Education*, 7(3), 91–102. <https://doi.org/10.5861/ijrse.2018.3005>
- [3] Bertalanffy, L. von. (1968). *General system theory: Foundations, development, applications*. George Braziller.
- [4] Bloom, B. S. (1968). Learning for mastery. *Evaluation Comment*, 1(2), 1–12.
- [5] Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>
- [6] Ejiogu, A. (2020). School environment and students' academic achievement in Nigerian secondary schools. *African Journal of Education Studies*, 12(1), 23–37.
- [7] Fullan, M. (2020). *Leading in a culture of change* (2nd ed.). Jossey-Bass.
- [8] Hattie, J. (2018). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.
- [9] Herzberg, F. (1959). *The motivation to work*. Wiley.
- [10] Ibrahim, M. (2019). Teacher motivation and student academic performance in Nigerian public schools. *International Journal of Educational Administration*, 11(1), 56–70.
- [11] Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School Leadership & Management*, 40(1), 5–22. <https://doi.org/10.1080/13632434.2019.1596077>
- [12] OECD. (2021). *Education at a glance 2021: OECD indicators*. OECD Publishing. <https://doi.org/10.1787/b35a14e5-en>
- [13] Okebukola, P. (2020). Innovative teaching strategies in Nigerian secondary schools. *Journal of Curriculum Studies*, 15(2), 112–130.
- [14] Okeke, C. C. (2021). Student motivation and engagement in Nigerian secondary schools. *Nigerian Educational Review*, 9(1), 33–48.
- [15] Oni, S., & Akinwunmi, F. (2019). Leadership styles and teachers' job performance in Lagos State secondary schools. *Educational Management Review*, 13(2), 66–81.
- [16] Oyetunde, T. O., & Muodumogu, C. A. (2019). Effective teaching strategies in Nigerian secondary schools. *African Journal of Teacher Education*, 8(1), 45–60.
- [17] Schunk, D. H. (2020). *Learning theories: An educational perspective* (8th ed.). Pearson.
- [18] UNESCO. (2022). *Transforming education summit report*. UNESCO Publishing.
- [19] World Bank. (2020). *The education crisis: Being in school is not the same as learning*. World Bank. <https://doi.org/10.1596/978-1-4648-1379-2>