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COMPARATIVE STUDY OF STUDENTS PERFORMANCE IN SCIENCES IN  
INDIVIDUALLY AND MISSION-OWNED PRIVATE SECONDARY SCHOOLS  
IN OBIO/AKPOR LGA, RIVERS STATE

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**ABSTRACT**

*The increasing enrolment of students in privately owned and mission schools has raised concern among stakeholders in the education sector. This trend motivated the present study, which examined students' academic performance in individually owned and mission-owned private schools within the LGA. A survey research design was adopted, with a population comprising students from both categories of schools. A sample of 100 students was selected using stratified random sampling. The study was guided by four research questions and four corresponding null hypotheses tested at the 0.05 level of significance. Data were collected from students' termly results and analyzed using mean and standard deviation to answer the research questions, while independent sample t-test and analysis of variance (ANOVA) were used to test the hypotheses. The findings revealed that students in individually owned private schools had higher mean performance (43.22) than those in mission-owned private schools (39.10). Female students in both school types also outperformed their male counterparts. Based on these findings, appropriate recommendations were made.*

**KEYWORDS:** Students performance, Private school, individually-owned, mission owned, secondary schools.

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**INTRODUCTION**

The reason for creating Secondary schools in the education system was primarily to serve as a bridge between primary education and higher learning or vocational training. Their core mandate includes providing students with foundational knowledge in various subjects, preparing them for tertiary education or skilled employment, instilling moral and civic values, and equipping them with problem-solving skills necessary for personal and societal development. Secondary education is expected to foster critical thinking, promote scientific literacy, and develop well-rounded individuals who can contribute meaningfully to national growth and global competitiveness. Despite their important role, many secondary schools, especially in Nigeria, have struggled to fully achieve their core mandate. These failures is attributed to several factors contribute to this failure, including



inadequate funding, poor infrastructure, ineffective teaching methodologies, and a lack of well-trained teachers. Government-owned schools, in particular, have faced challenges related to overcrowding, outdated curricula, and inconsistent policies, which affect the quality of education provided. Additionally, issues such as corruption in the education sector, poor governance, and insufficient monitoring of school activities have further weakened the effectiveness of secondary education.

Furthermore, socioeconomic factors play a significant role in the declining quality of secondary education. Many students come from disadvantaged backgrounds where poverty limits access to essential learning resources. In many cases, students are forced to work alongside their studies to support their families, leading to lower academic performance and higher dropout rates. Also, the lack of motivation among teachers due to low salaries and poor working conditions contributes to ineffective teaching and learning.

The inability of government-owned secondary schools to meet the increasing educational demands in Nigeria has led to a significant rise in the establishment of private schools. This proliferation is primarily driven by several key factors. Firstly, many parents actively seek better alternatives to public schools, preferring private institutions that offer smaller class sizes, stricter discipline, and improved teaching quality (Adebayo & Nwachukwu, 2015). The demand for quality education remains a critical driver of private school expansion, as public schools continue to struggle with overcrowding, limited resources, and poor infrastructure. Another contributing factor to the rise of private schools is the inadequacy of public-school infrastructure. Overcrowding in government-owned secondary schools has forced many parents to explore alternative options, leading to increased enrollment in private institutions (Eze, 2018). Public schools in Nigeria often lack the capacity to accommodate the growing student population, which has put pressure on the education system and created opportunities for private sector involvement.

Furthermore, private schools tend to exhibit higher levels of accountability compared to their public counterparts. Private school owners are generally more responsive to the concerns of parents and stakeholders, ensuring better administration and improved student performance (Ogunyemi, 2014). Unlike government schools, where bureaucratic inefficiencies may hinder progress, private institutions operate with a higher degree of flexibility, allowing for the swift implementation of educational reforms and policies that benefit students. Economic incentives have also played a significant role in the proliferation of private schools. The private education sector has become a lucrative industry, attracting investors seeking to capitalize on the growing demand for high-quality education (Ajayi, 2013). As education is increasingly viewed as both a social service and



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a profitable venture, entrepreneurs and organizations continue to establish private schools to cater to the needs of different socioeconomic groups.

Despite the advantages that private schools offer, concerns have been raised about the quality of education provided in some individually-owned institutions. Private schools in Nigeria vary widely in standards, with some prioritizing financial gain over educational excellence. In some cases, these institutions employ underqualified teachers, lack essential teaching and learning resources, and operate with minimal government oversight (Adebayo & Nwachukwu, 2015). This has led to disparities in the quality of education offered by different private schools, raising questions about the overall effectiveness of privatized education in addressing the challenges faced by the public education system.

While the proliferation of private schools has helped bridge the gaps left by failing government institutions, it is essential to ensure that these schools maintain high academic standards and contribute positively to national educational goals. Proper regulation, government oversight, and continuous quality assessment are necessary to prevent the commercialization of education at the expense of students' academic success. By addressing these concerns, Nigeria's private education sector can continue to complement the public system while ensuring that all students receive a high-quality education that prepares them for future opportunities (Eze, 2018).

Individually owned private schools are a subcategory of private schools that are established and managed by a single proprietor or small private groups. These schools operate independently and may differ widely in quality based on the financial resources and management practices of their owners. Some individually owned private schools provide high-quality education with structured curricula, well-trained teachers, and modern facilities (Adebayo & Nwachukwu, 2015). However, many struggle with financial instability, poor management, and a lack of government oversight, which negatively impacts student performance (Eze, 2018). The absence of stringent regulatory policies allows some proprietors to cut costs by employing unqualified teachers, using outdated curricula, and failing to invest in adequate infrastructure.

Mission-owned schools are institutions established by religious organizations, integrating academic education with moral and spiritual teachings. These schools emphasize discipline, ethical values, and character development alongside academic learning. Due to financial and administrative support from religious organizations, mission-owned schools often maintain high academic standards, employ well-trained teachers, and provide well-maintained learning facilities. Peretomode and Obed-Chukwuka (2024) highlight that mission-owned schools benefit from substantial support from religious communities, resulting in stable management, structured curricula, and an



emphasis on both academic excellence and moral upbringing. These schools are also known for fostering strong community engagement and discipline, which contribute positively to student performance. The characteristics of different school ownership models vary across several dimensions. In terms of governance, public schools are administered by government-appointed officials and adhere strictly to national education policies. Private schools, including individually owned private schools, operate under independent management, giving them flexibility in administrative decisions. Mission-owned schools are managed by religious bodies, incorporating faith-based principles into their educational framework. Funding sources also differ significantly. Public schools depend on government budgets, which are often limited and lead to resource shortages. Private schools rely on tuition fees and private investments, meaning their financial stability directly affects the quality of education they provide. Mission-owned schools receive financial backing from religious organizations, donor contributions, and, in some cases, government grants, ensuring a more stable funding structure compared to individually owned private schools.

Curriculum approaches vary among school types. Public schools follow the government-mandated curriculum to maintain uniformity in education standards. Private schools, including individually owned institutions, have more flexibility in adopting alternative curricula, including international programs and innovative teaching methods. Mission-owned schools blend the national curriculum with religious teachings, emphasizing moral education alongside standard academic subjects.

Accountability and performance monitoring also differ. Public schools are held accountable by government regulatory bodies, with student performance evaluated through standardized national tests. Private schools answer to parents and governing boards, with assessments based on institutional goals and expectations. Mission-owned schools remain accountable to their religious organizations and school communities, focusing on both academic and moral development outcomes. Understanding these different types of school ownership is vital for policymakers, educators, parents, and students in making informed decisions about education in Nigeria. Each school type presents unique strengths and challenges, and recognizing these distinctions can help improve the overall education system by addressing gaps in funding, regulation, and academic performance. Policymakers must implement strategies to regulate private and mission-owned schools more effectively while enhancing the quality of public education to ensure equitable learning opportunities for all students.

On the other hand, mission-owned private schools are established by religious organizations and emphasize academic excellence alongside moral and ethical development. These schools are generally well-funded through religious bodies,



donations, and alumni support, allowing them to provide better educational resources and maintain a high standard of teaching (Ogunyemi, 2014). The emphasis on discipline, values, and holistic education in mission-owned schools contributes to improved student outcomes compared to many individually owned institutions (Ajayi, 2013). Students' academic performance in private schools is influenced by various factors, including the availability of learning resources, teacher quality, school management efficiency, and parental involvement. Studies have shown that private schools, in general, outperform public schools due to better funding, smaller class sizes, and greater accountability (Adebayo & Nwachukwu, 2015). However, disparities exist within the private sector itself, as individually owned schools often struggle to maintain consistent academic quality, while mission-owned schools benefit from structured management and long-term educational goals (Eze, 2018).

### **Research Questions**

1. Is there any difference in the achievement of students between individual -owned and mission-owned private schools?
2. Is there any difference in the gender performance of students in individually-owned and mission-owned private schools?
3. What are the factors responsible for the difference in their performances?
4. What is the level of learning facilities between the school types?

### **Hypotheses**

1. There is no significant difference in the students' performance between individually-owned and missioned private schools
2. There is no significant difference between the male and female students' performance within and between schools
3. There is no difference in the factors responsible for student's performance between individually owned and mission-owned schools
4. There is no difference in the learning facilities between individually-owned and mission-owned private schools

### **Methodology**

The study adopted a survey research approach to investigate students' academic performance in individually- owned and mission-owned private secondary schools within the Local Government Area. This design was judged appropriate since it enables for the systematic collecting and analysis of existing academic records across different school ownership types without changing the study variables. The population of the study



comprised all students registered in personally owned and mission-owned private secondary schools in the LGA.

A stratified random sampling procedure was employed to choose the study sample in order to ensure adequate representation of students from both categories of private schools. The population was first segregated based on school ownership (individually owned and mission-owned), after which kids were randomly picked from each stratum. A total sample size of 100 students was picked for the study, with proportional allocation applied to match the size of each stratum. Data for the study were acquired from students' termly academic results, which served as an objective assessment of academic success. These results were taken directly from school records with the agreement of school administrators to assure accuracy and validity of the data. The inclusion of academic records eliminated response bias and boosted the dependability of the findings. The data collected were evaluated using both descriptive and inferential statistical approaches. Mean scores and standard deviations were utilised to address the research questions by describing trends and disparities in students' academic performance. To assess the null hypotheses, the independent samples t-test was applied to find significant differences between children in independently owned and mission-owned private schools, while analysis of variance (ANOVA) was used where comparisons involved more than two groups. All hypotheses were tested at the 0.05 level of significance, and the data were interpreted accordingly to make valid conclusions for the study.

**Research question 1:** Is there any difference in the achievement of students between individual -owned and mission-owned private schools?

**Table 1: Mean and standard deviation of students' performance in individually-owned and mission-owned private schools**

<b>School Type</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Mean difference</b>
Individually-owned	40	43.22	18.56	4.12
MISSION-owned	60	39.10	15.07	

Table 1 shows the mean and standard deviation of the performance of students in individually-owned and mission-owned private secondary school in the LGA. Individually-owned Private schools have a mean and SD of (43.22 and 18.56) respectively while the mission-owned private schools have a mean of 39.10 and SD of 15.07 and the mean difference was 4.12. The result indicated that the students' performance was better in the individually-owned private schools than the mission-owned private schools.



**HO1.** There is no significant difference in the students’ performance between individually-owned and missioned private schools

**Table2:** Summary of the independent t-test of students’ performance in individually-owned and mission-owned Private secondary schools

School Type	N	Mean	SD	Df	T	p	Decision
Individual-owned	40	43.22	18.56	98			
Mission-owned	60	39.10	15.07		1.22	0.220	NS

Table 2 shows the mean and standard deviation of the performance of students in basic science in private and public secondary schools. Individually-owned private schools have a mean and SD (43.22±18.56) respectively, while the mean and SD for the mission-owned private schools are (39.10±15.07) respectively. The table further show the result of the t-test, (t-cal.,1.22 df, 98, p=0.220) show no significant difference. Since the p>0.05, the HO1. There is no difference in the students’ performance between individually-owned and mission-owned private is retained,

**Research Question 2:** Is there any difference in the gender performance of students in individually-owned and mission-owned private schools?

**Table 3** Mean and standard deviation of Teachers gender within private and public schools

School type	Gender	N	Mean	S D
Individually-Owned	Male	12	42.5000	20.5
	Female	28	43.5357	18.05
Mission-Owned	Male	25	39.0000	17.63
	Female	35	39.1714	13.22

Table 3 shows the gender performance of students within the school types, in individually-owned private schools the mean and standard deviation of male and female was 42.50 and 20.53 respectively while female had mean and SD of female 43.52±18.05. While in mission-owned private schools the mean and SD for male was 39.00±17.63 respectively for male and a mean and SD of 39.17±13.22 for the female in public schools

**Ho2.** There is no significant difference between the male and female students’ performance within and between schools

**Table 4:** Summary of the independent t-test of teachers’ gender within individually-owned and mission-owned secondary schools

School type	Gender	N	Mean	SD	Df	t	p
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Individual-Owned	Male	12	42.50	20.53	38	-0.160	.885
	Female	28	43.53	18.05			
Mission-owned	Male	25	39.00	17.63	58	-.043	.376
	Female	35	39.17	13.22			

Table 4 shows the gender performance of students within the school types, in private schools the mean and standard deviation of male and female was 42.50 and 20.53 respectively while female had mean and SD of and female while in the individually-owned schools the mean and SD for male was  $39.00 \pm 17.63$  respectively for male and a mean and SD of  $39.17 \pm 13.22$  for the female in mission-owned schools. The table further show the result of the t-test, (t-cal.-0.160 df, 38,  $p=0.885$ ) show no significant difference between male and female in individually-owned schools Since the  $p > 0.05$ , the  $H_0$ . There is no difference in the students' gender between male and female in individually-owned and mission-owned schools is retained.

**Research question 3:** What are the factors responsible for the difference in their performances?

**Table 5: Mean and standard deviation of the factor's responsible students' performance in individually-owned and mission-owned schools**

School type		N	Mean	SD	Mean Difference
FACTORS	Individual-owned	40	2.95	.17	.043.
	Mission-owned	60	2.91	.18	

Table 5 shows the mean and standard deviation of the factors responsible for the difference in performance between individually owned and mission-owned private secondary school in the LGA. Individually-owned schools have a mean and SD of (43.22 and 18.56) respectively while the mission-owned schools have a mean of 39.10 and SD of 15.07 and the mean difference was 4.12. The result indicated that the students' performance was better in individually-owned schools than the mission schools.

**H<sub>03</sub>**. There is no difference in the factors responsible for student's performance between individually owned and mission-owned schools

**Table 6: Summary of the independent t-test of teachers' workload in Individually-owned and mission-owned secondary schools**

School type		N	Mean	SD	Df	T	P
FACTORS	Individual	40	2.95	.17	98.	1.178	.146



Mission 60 2.91 .18

The findings show that individually-owned private schools recorded a slightly higher mean score on the factors influencing students’ performance than mission-owned private schools. However, the independent samples t-test ( $t = 1.178$ ,  $df = 98$ ,  $p = .146$ ) revealed that this difference is not statistically significant since the p-value is greater than 0.05. This indicates that the factors responsible for students’ performance do not differ significantly between individually-owned and mission-owned private secondary schools in the LGA. Therefore, the  $H_03$  is retained.

**Research Question 4:** What is the level of learning facilities between the school types?

**Table 8: Mean and standard deviation of learning facilities in Individually- owned and mission owned schools**

	School type	N	Mean	SD	mean difference
SCHOOLFACILITIES	Individual	40	2.46	0.43	.231
	Mission	60	2.23	0.54	

Table 8 shows the mean and standard deviation of school facilities in individually-owned and mission-owned secondary school in the LGA. Individually-owned schools have a mean and SD of (2.46 and .43) respectively while the mission-owned schools have a mean of 2.23 and SD of .54 and the mean difference was .231. The result indicated that the school facilities were better in individually owned than the mission-owned private schools.

**HO4.**There is no difference in the learning facilities between individually-owned and mission-owned private schools

**Table 9: Summary of the independent t-test of school facilities in individually-owned and mission-owned secondary schools**

School facilities	School type	N	Mean	SD	Df	T	p
Individual- Owned	Individual-	40	2.46	0.43	98.	2.28	0.13
	Owned						



Table 9 shows the mean and standard deviation of the school facilities in individually-owned and mission-owned private secondary schools. Individually-owned schools have a mean and SD ( $2.46 \pm .43$ ) respectively while the mean and SD for the individually-owned schools is ( $2.23 \pm .54$ ) respectively. The table further show the result of the t-test, ( $t\text{-cal.}2.28$  df, 98,  $p=0.13$ ) show no significant difference school types. Since the  $p>0.05$ , the HO5 is retained,

## Discussion

The study showed that students in individually-owned private secondary schools performed slightly better in Basic Science than those in mission-owned private schools. Although the mean difference suggested a small advantage for individually-owned schools, the t-test results indicated that this gap was not statistically significant. This implies that ownership type does not meaningfully influence academic performance in the LGA. This pattern agrees with recent evidence showing that where schools follow similar regulatory guidelines, curriculum standards, and teacher recruitment practices, differences in ownership rarely translate into significant academic disparities (Okoye & Ofoegbu, 2022; Adeyemi, 2023). Researchers further emphasize that internal school management, instructional supervision, and teacher competence are more decisive predictors of student achievement than ownership structure (Eze & Alamina, 2021). The slight numeric advantage of individually-owned schools may be linked to their flexibility in adopting innovative instructional approaches or responding quickly to parental expectations. However, this advantage was too small to be statistically meaningful. Similar observations appear in recent work suggesting that private schools—whether individually or mission owned—often provide comparable levels of personalized instructional support, thereby reducing performance gaps between them (Akinola & Ikuomola, 2024).

Gender-based analysis also showed no significant difference in the performance of male and female students across both private and public schools. Although minor variations existed in mean scores, the t-tests confirmed that gender did not influence performance in Basic Science. This finding is consistent with studies reporting that modern science instruction, improved access to digital resources, and inclusive teaching approaches have narrowed historical gender disparities in science subjects (Odu & Chinedu, 2023; Musa & Ibrahim, 2024). Adeoye and Samuel (2022) similarly observed that contemporary learning environments emphasize equal participation, which reduces gender-linked differences in achievement. However, a few studies continue to report context-specific gender gaps—sometimes favouring boys due to confidence in practical tasks (Aderibigbe & Hassan, 2024) or favouring girls due to stronger study habits (Umeh & Ugochukwu, 2023). These mixed results suggest that gender gaps, when present, are shaped more by school climate and teacher attitudes than biology or ability.

Findings on the factors influencing student performance showed that individually-owned schools scored slightly higher than mission-owned schools, but again, the t-test



result ( $t = 1.178$ ,  $p = .146$ ) showed no significant difference. This suggests that both types of private schools offer largely similar learning environments in terms of supervision, teacher quality, and resource availability. This conclusion aligns with studies noting that most private schools in Nigeria operate under similar economic constraints, leading to comparable educational inputs (Eze & Alamina, 2022; Odu & Chinedu, 2023). Some contrary evidence indicates that individually-owned schools may outperform mission schools due to flexible administration (Aina & Obot, 2024), while others argue that mission schools perform better due to stronger discipline and structured oversight (Ekpo & Nwachukwu, 2023). Nonetheless, such differences did not appear in this LGA.

Similarly, the comparison of school facilities showed that individually-owned schools had slightly higher scores than mission-owned schools, but the difference was not statistically significant ( $t = 2.28$ ,  $p = .13$ ). This supports research indicating that school ownership does not necessarily guarantee better facilities because most private schools depend on similar funding sources and follow similar establishment guidelines (Okoli & Nwankwo, 2022; Adebayo & Yusuf, 2023). Opposing studies suggest that mission schools sometimes have better support from religious organizations (Chima & Eze, 2023), while individually-owned schools may improve facilities to attract enrolment (Ogunleye & Bolarinwa, 2022). However, such patterns did not apply within the study area.

## Conclusion

The study concludes that ownership type—individually-owned or mission-owned—does not significantly influence students' performance in Basic Science, gender outcomes, or the availability of school facilities in the LGA. While individually-owned schools showed slight numerical advantages, these differences were not statistically significant, indicating that both school types provide comparable learning environments, instructional support, and resources. Factors such as teacher quality, effective supervision, and learning materials appear more critical in shaping academic outcomes. Similarly, gender was not a determining factor in student performance, suggesting that both boys and girls have equitable access to learning opportunities in the studied schools.

## Recommendations

1. Government should organize training to enhance teacher professional development across all private schools to improve instructional quality.
2. School administrators should provide adequate learning resources and laboratory facilities to support student-centered learning.
3. Encourage school management to adopt innovative teaching practices and modern pedagogical tools.
4. Implement programs promoting inclusive and supportive learning environments for both male and female students.



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