

**ANALYSIS OF COGNITIVE ACHIEVEMENT  
OF SOCIAL STUDIES STUDENTS:  
PERSPECTIVES OF GENDER AND  
SCHOOL LOCATION**

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**Abstract**

*The efficacy of an educational programme or institution is contingent upon the cognitive attainment of its students. Therefore, this study examines the cognitive achievement of students in Social Studies across a span of four years in Delta State. The results are hypothesised to possess the potential to assess the current performance of Social Studies pupils, hence facilitating future enhancements. This study utilised relevant and empirical scholarly sources to determine the existing body of research on the relationship between cognitive achievement and characteristics such as gender (male and female) and school location (rural and urban). The study employed an ex-post facto research design and utilised a purposive sample strategy to collect data from a total of 17,880 students who took the Basic Certificate Examinations (BCE) between 2018 and 2021. The participants were selected from 16 Upper Basic Schools. The data that was obtained was subjected to t-test analysis in order to determine the impact of gender and school location on the cognitive achievement of male and female students in Social Studies, specifically in rural and urban areas. The results of the study*

*revealed a notable discrepancy in cognitive performance across students based on gender; with female students exhibiting higher levels of achievement compared to their male counterparts. In a similar manner, it was seen that students residing in urban areas had a higher average score compared to their rural counterparts. Consequently, the study reached the conclusion that both gender and school location exert a substantial influence on the cognitive achievement of students in the field of social studies. Based on the aforementioned findings, it is recommended that future efforts be directed towards acknowledging and addressing the disparities shown in cognitive achievements, particularly with regard to gender and school location.*

**Keywords:** Cognitive achievement; Perspective; Social Studies; Students' Gender; School location; Future.

### **Introduction**

The discipline of Social Studies was developed with the intention of providing training in the social sciences. Its primary aim is to foster the growth and cultivation of responsible and ethical individuals, who in turn contribute to the development and progress of nations. Daboer and Umaru (2021) emphasised the significance of Social Studies in mitigating social vices and negative behaviours among young individuals. Therefore, the matter of Social Studies students' underperformance in Nigerian Schools has been a topic of significant discourse among stakeholders in the field of Social Studies. Abdulraheem (2012) conducted a study that revealed low levels of retention among students. Aina (2019) conducted research and identified inadequate formative feedback on instruction as a contributing factor. Daboer and Umaru (2021) observed that poor curriculum implementation was also a significant factor. Additionally, Atubi and Dania (2022) conducted a study and found that the non-application of instructional resources further exacerbated the

problem. Several factors have been identified in the literature as potential influences on students' academic performance. These factors include familial background (Osonwa et al., 2013), gender (Adigun et al., 2015), school location (Ntibi and Edoho, 2017), inadequate government support of education (Ugwalashi, 2012), students' habits and interests (Ayodele&Aydebiyi, 2013), as well as the learning environment, among others.

The field of Social Studies is primarily focused on the study of topics that are directly related to human beings, including how individuals organise their own growth and development in relation to their peers and the surrounding settings (Ogundare, 2000). According to Bhure et al. (2021), cognitive achievement can be defined as the extent of knowledge acquired by a student and their capacity to demonstrate this knowledge through an examination or test, either after a substantial duration of time or upon completion of an educational programme. According to Alghadir and Gabr (2020), the cognitive achievement of students can be observed through their grades following the completion of an examination at the conclusion of an academic year or course.

The concept of gender perspective in the field of Social Studies and cognitive accomplishment pertains to the analysis of task performance and academic outcomes in exams and assessments within the context of male and female individuals. The impact of gender on students' cognitive achievement. The subject matter has been extensively investigated, primarily within the realm of scientific sciences. Conversely, there has been a lack of emphasis on the examination of the impact of gender on the cognitive accomplishment of Social Studies learners, as evidenced by the studies conducted by Glasser and Smith (2008) and Dania (2014). According to Oladotun (2020), numerous studies have explored the relationship between gender and cognitive success, yielding varying findings. Some studies have found a significant association between gender and cognitive achievement, while others have found no such connection. According to Lynch and Feeley (2009), there is a presence of gender imbalance within the educational sphere in relation to preferences for certain disciplines and academic accomplishments. These findings

indicate that there may be a correlation between an individual's gender and their academic performance in the field of Social Studies.

In a study conducted by Abaidoo (2018), the influence of gender on the cognitive success of students in Ghana was examined. The findings of the study revealed a positive correlation between gender and cognitive achievement. The studies conducted by Bamidele and Adekola (2017) as well as Parajuli and Thapa (2017) demonstrated a notable disparity in cognitive attainment between male and female pupils. The impact of gender on the cognitive achievement of computer science students was investigated by Adigun et al (2015) and Awodun and Oyeniyi (2018). Their findings revealed a lack of substantial difference in the academic performance between male and female students. However, it was observed that male students achieved somewhat superior results compared to their female counterparts. Consequently, the researchers have suggested the need for additional investigations pertaining to the relationship between gender and cognitive performance across various academic disciplines. Akpochofo (2015) substantiated the claim that it is important to take gender into account while examining the individual aptitude and abilities demonstrated by male and female students in the field of Social Studies. According to Abdu-Raheem's (2012) findings, there was no statistically significant disparity observed in the average cognitive retention scores between male and female students in the field of social studies. Nevertheless, their research suggests that the perspective on gender in relation to cognitive attainment should be reevaluated in alternative contexts. The existing empirical research pertaining to the influence of gender on cognitive performance lacks a definitive stance on the subject. Consequently, this study aims to provide additional insights into the function of gender as a determinant of cognitive achievement among Social Studies students in Nigeria.

The geographical setting of a school, whether it is situated in a rural or urban area, can exert a significant impact on students'

educational experiences and cognitive attainment (Yohanna & Mohammad, 2022). It is not surprising, therefore, that numerous stakeholders in the field of education and researchers have prioritised this as a significant area of research. Urban communities generally exhibit larger population densities compared to rural areas. The development of these areas encompasses a combination of residential and commercial buildings, administrative offices, well-maintained roadways, social amenities, and a concentration of infrastructural facilities (National Geographic Society, 2011). In contrast, rural communities exhibit characteristics that are diametrically opposed to those of urban settlements. These areas often have a smaller population and a greater proportion of residential structures, while commercial establishments are relatively few. Based on the findings of the Federal Government of Nigeria (2006) as quoted in Aina (2019), it has been determined that the rural population in Nigeria typically falls between the range of 20,000 individuals. The region consists of numerous impoverished areas characterised by little or nonexistent infrastructure and a scarcity of social services such as schools, markets, and healthcare facilities, among others.

Empirical evidence and firsthand observations have demonstrated that a considerable number of young individuals in Nigeria opt to relocate from rural areas to urban settlements, namely towns and cities, with the primary objective of accessing quality education and improved social amenities. The migrants have the assumption that urban areas will provide them with more educational opportunities and resources. Similarly, there exists a prevalent perception that urban schools possess a greater number of well educated and adequately trained teachers due to the elevated quality of life prevalent in urban areas (Aina, 2019). Schools situated in Delta State are distributed over both rural and urban regions, hence leading to varying obstacles encountered in the delivery of Social Studies education in these respective locales. This has led to the requirement for a distinction in the cognitive attainment of Social Studies students in both regions.

In a study conducted by Akpomudjere (2020), the focus was on examining the effects of school location on the cognitive achievement of Business Studies students in Sapele LGA of Delta State. The findings of the study indicated that there is no substantial influence of school location on cognitive achievement. In a study conducted by Essien (2017), the impact of school location on the cognitive achievement of Social Studies students in Colleges of Education in Cross Rivers State, Nigeria was investigated. The findings of the study indicated that there is no significant influence of school location on cognitive achievement. Similarly, the study conducted by Ntibi and Edoho (2017) examined the impact of school location on students' attitudes and academic performance in mathematics and science. The findings revealed that there was no significant disparity in the average achievement scores between students from rural and urban areas in the aforementioned subjects.

In a study conducted by Mhiliwa (2015), the impact of school location on students' academic performance was investigated. The findings of the study indicate that the considerable distance traversed by students on foot to reach their educational institution had an adverse impact on their cognitive performance, primarily attributable to the rural setting of the school. The occurrence resulted in widespread failure. The study suggested that measures should be taken to address the issue, as failing to do so will result in ongoing low cognitive performance in rural secondary schools within the region. The study conducted by Owoeye and Yara (2011) aimed to explore the relationship between school location and cognitive accomplishment in Ekiti State, Nigeria. The findings of the study indicated that pupils attending urban schools exhibited superior cognitive abilities compared to their counterparts in rural schools. The existing body of literature presents varying findings, indicating a lack of consensus about the impact of school location on cognitive achievement. Furthermore, it is worth noting that a significant gap exists in the literature as the majority of the studies examined in the review were conducted in disciplines other than Social Studies. Only a limited number of

studies have specifically explored this topic area. Delta State has been subject to a limited number of studies in the field of Social Studies, with none specifically conducted under its jurisdiction.

Despite the Sustainable Development Goals of 2030 prioritising the reduction of gender disparity, gender inequality persists, particularly in relation to the geographical location of schools (Atubi, 2019). The available evidence, particularly in Nigeria, indicates a significant disparity in various dimensions, favouring male pupils or those residing in metropolitan regions. This phenomenon has prompted other scholars, including the author of this study, to undertake an in-depth investigation. This study investigates the impact of gender and school location on the cognitive achievement of Social Studies students in Delta State, with implications for the future of Social Studies education in Nigeria.

### **Objectives of the Study**

The ultimate objective of the study was to investigate the cognitive achievement of Social Studies students from the perspectives of gender and school location now in order to prepare for the future. While the specific objectives include;

1. To analyse the effect of gender on the cognitive achievement of Social Studies students in Delta State now for the future.
2. To examine how school location can affect the cognitive achievement of Social Studies students now for the future in Delta State.

### **Hypotheses**

Two null hypotheses were formulated for the study and were tested at 0.05 level of significance;

- i. Gender has no significant effect on cognitive achievement of students in Social Studies.
- ii. School location has no significant effect on cognitive achievement of students in Social Studies.

## Methods

The research design employed in this study was ex-post facto, as it relied on pre-existing data. The data pertaining to the cognitive achievement outcomes of students who took the Basic Certificate Examination (BCE) in Social Studies between the years 2018 and 2021 were gathered from a sample of 16 upper basic schools that were included in the study. The researchers employed a purposive sampling strategy to choose a sample of sixteen schools, with an equal representation of eight schools from rural areas and eight schools from metropolitan areas. The BCE results were evaluated using a grading system that encompassed the following categories: A, denoting Distinction; B, representing Very Good; C, indicating Good; P, signifying Pass; and F, denoting Fail. The analysis focused on the cognitive performance of 17,880 students who took the examination over the specified period. This group consisted of 8,827 female students and 9,053 male students. The analysis aimed to identify how their cognitive performance varied based on their gender and the location of their school. The study utilised descriptive statistics, including tables and the mean, as well as the independent t-test, to assess the formulated hypothesis. The statistical analysis was conducted at a significance level of 0.05.

## Results

### Hypotheses Testing

**Hypothesis 1:** Gender has no significant effect on cognitive achievement of students in social studies.

**Table 1:** T-test Analysis Table of Female and Male Cognitive Achievement in Social Studies

Variable	N	$\bar{X}$	Standard Deviation	t-calculated	df	t-critical	Decision
Female	8827	41.22	16.23	3.27	17878	1.96	Significant
Male	9053	38.46	15.55				



Table 1, explains hypothesis 1 which states that Gender has no significant effect on cognitive achievement of students in Social Studies, and was rejected as t-calculated value of 3.27 was higher than t-critical value of 1.96. This findings means that gender has a significant effect on student’s cognitive achievement in Social Studies in Delta State.

**Hypothesis 2:** School location has no significant effect on cognitive achievement of students in Social Studies.

Variable	N	$\bar{X}$	Standard Deviation	t-calculated	df	t-critical	Decision
Rural	8581	13.35	16.23				
Urban	9299	39.51	15.55	2.58	17878	1.96	Significant

Results from table 2, testing the effect of school location on cognitive achievement of social studies students, reported a significant effect as calculated t-test value of 2.58, is greater than t-critical value of 1.96. By interpretation, the null hypothesis therefore is rejected and an alternate hypothesis that school location is significant to cognitive achievement in favour of urban schools is accepted.

**Discussions**

The study’s findings, as evidenced by the results presented in tables 1 and 3, indicate that gender significantly influences the cognitive achievement of Social Studies students. This is the case since the average score of female students examined was found to be greater than the average score of male students. Furthermore, it is worth noting that the computed t-value exceeded the critical t-value. There are several causes that can be ascribed to this phenomenon, as it appears that girls tend to exhibit a greater level of composure and attentiveness in the classroom, whereas boys tend to display a more lively and restless demeanour. The results of this study align with the findings of Bamidele and Adekola (2017),

Parajuli and Thapa (2017), Abaidoo (2018), and Oladotun (2020), since all of these studies have identified a strong impact of gender on cognitive achievement, with a preference towards females. Nevertheless, the results of this investigation failed to corroborate the assertions made by Adigun et al. (2015), Akpochafo (2015), and Awodun and Oyeniyi (2018), as their respective studies presented contrasting outcomes. There is a lack of substantial evidence indicating any notable influence or correlation between gender and cognitive attainment.

Based on the results of the second hypothesis, the study revealed a statistically significant impact of school location on cognitive accomplishment, with urban children demonstrating higher performance. This can be observed in tables 1 and 2. The implication suggests that students residing in urban areas demonstrated superior performance in the field of Social Studies compared to their counterparts residing in rural areas. The lack of surprise in this finding can be attributed to the fact that the Social Studies laboratory represents the urban population, where students have greater exposure to Social Studies content due to their access to superior educational facilities, infrastructure, and amenities compared to their rural counterparts. Aina (2019), Mhiliwa (2015), and Yohanna and Mohammad (2022) align with the second set of findings identified in the present study. It has been determined that the geographical placement of schools holds significance in relation to the cognitive attainment of pupils in secondary education. However, Akpomudgere (2020) and Essien (2017) presented a contrary perspective. Hence, this study has identified a noteworthy correlation between gender and school location with regards to the cognitive attainment of students in the field of Social Studies.

### **Conclusion**

The findings of the study indicate that gender plays a significant role in the cognitive performance of students in the field of Social Studies. Consequently, it is imperative for all parties involved to adopt proactive measures in order to address and minimise this

disparity in the coming years. In a comparison analysis, the study also revealed that pupils residing in urban areas exhibited higher levels of cognitive achievement in the field of social studies, as compared to their counterparts in rural areas. This phenomenon can be attributed to various variables, including the presence of high-quality schools with well-experienced teachers, which are more readily accessible in urban regions compared to the educational resources available in rural schools.

### **Recommendations**

Further research should be conducted to investigate the factors that contribute to the disparities in cognitive performance among students in Social Studies, specifically in relation to gender, in different geographical locations. Furthermore, it is imperative to promote and equip schools and educators in rural regions with contemporary resources and techniques for teaching Social Studies. By doing so, it is possible to address the cognitive achievement gap that appears to persist between children in rural and urban areas.

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