



Socio-Structural Variations in English Proficiency among Senior Secondary School Students in Benue State, Nigeria: Interdisciplinary Evidence from Researcher-Administered Tests

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Abstract. This study examined socio-structural variations in English proficiency among Senior Secondary School Two (SSS II) students in Benue State, Nigeria, using researcher-administered testing to circumvent the coaching bias and examination malpractice that compromise WAEC and NECO results. Grounded in Variationist Sociolinguistics, the study investigated how spatial location, household linguistic background and socio-economic stratification, singly and interactively, shape English proficiency. A cross-sectional, causal-comparative design was adopted, with 900 students sampled through a multi-stage stratified procedure across an 18-cell ($2 \times 3 \times 3$) factorial structure spanning Benue North, Central and South. Data were collected using the Researcher-Administered English Proficiency Test (REPT) and the Socio-Structural Factors Questionnaire (SSFQ), and analysed using a one-sample t-test, one-way ANOVA and factorial ANOVA at the 0.05 significance level. Results showed that the overall mean proficiency score (44.6%) was statistically, though only marginally, higher than the 40% national minimum, $t(899) = 7.728$, $p < .001$, $d = 0.26$. Urban students significantly outperformed rural students, $F(1, 898) = 787.801$, $p < .001$, and proficiency rose systematically with greater household use of English, $F(2, 882) = 29.121$, $p < .001$. Socio-economic stratification was significant but non-linear, $F(2, 882) = 7.034$, $p = .001$. All two-way interactions and the three-way interaction among the factors were significant, with the three-way term explaining the most variance, $F(4, 882) = 22.907$, $p < .001$, $\eta^2 = .094$. The findings indicate English proficiency in Benue State is systematically stratified along, and compounded across, spatial, linguistic and economic lines, warranting targeted rather than uniform interventions.

Keywords: English proficiency; Socio-structural variations; Spatial location; Household linguistic background; Socio-economic stratification; Researcher-administered testing

1. Introduction

English functions beyond its role as a mere subject outlined in the curriculum in Nigeria; it is the official language, the principal medium of instruction and the indispensable key to academic progression and socio-economic mobility. Its proficiency is a central requirement for success in every secondary school-leaving examination and for entry into tertiary education. However, a lamentable national discourse persists regarding a perceived chronic decline in English proficiency among secondary school graduates. This discourse unfolds as evident by its consistent record in the Chief Examiners' Reports of the West African Examinations Council (WAEC, 2022). The perceived language decline is, nevertheless, not uniformly distributed across the diverse socio-cultural and economic configurations of the country; instead, it is shaped by profound variations in structural realities. Benue State presents a particularly compelling context for examining socio-structural variations in English language proficiency among secondary school students – in that the state exemplifies the complex interplay between geographical positioning, economic circumstances and educational outcomes that characterise much of Nigeria's educational realities.

Benue State is predominantly an agrarian society. This characteristic feature profoundly influences its settlement patterns and social structures. As a result, a significant proportion of its population – 75.4% according to World Bank (2022) – resides in rural areas, where the indigenous peoples are deeply

engaged in farming and entrenched within homogenous linguistic communities that rely predominantly on the Tiv, Idoma or Iggede language for communication purposes. The agrarian character of Benue State's economy, though providing sustenance for millions, creates a distinctive set of challenges for English language proficiency that extend far beyond binary urban-rural variations. According to Nyon et al. (2020), agricultural communities in the state often maintain stronger ties to indigenous languages, creating multilingual environments where English competes with local vernaculars for communicative ends. In rural areas, resource constraints quite often block students from access to cultural capital as essential assets for building literacy and English proficiency (Aule, Jibril & Adewuyi, 2017): books, digital technologies, qualified teachers and examination-coaching resources. These shortages also restrict access to social capital – peer networks, mentorship from teachers and alumni and supportive family or community structures – further operating in militation against opportunities for authentic English learning and long-term proficiency.

Variations in English proficiency across Benue also tend to reflect variations in linguistic operations of households across the state. Unlike in urban centres like the state capital, Makurdi, where English often functions as a lingua franca across diverse ethnic groups, rural households in Benue State typically maintain indigenous languages as the primary means of domestic communication. Adejola (2010) contends that while this linguistic continuity serves to preserve and perpetuate cultural identity, it also generates difficulties for students as they have to delicately walk a fine line between the prevailing languages in their households and the English-channel instruction that dominates the realities of secondary schools. Factors such as the extent to which families incorporate English into daily conversation, the presence of English-language media in the home and the level of parental proficiency in English – all operate together to shape the linguistic base on which formal education rests (Adegbite, 2019).

Lastly, Benue State, like much of Nigeria, is characterised by sharp socio-economic stratification, which directly influences parental capacity to provide educational resources – from textbooks to private tuition, that are known to bolster language acquisition (Uwatt, Ndifon & Ukpepi, 2010). These factors – spatial location, household linguistic background, socio-economic stratification – constitute the core socio-structural dimensions that may systematically predicate a student's progression towards English proficiency. The critical need, therefore, is to move

beyond anecdotal evidence and unreliable conventional examination scores to empirically measure true proficiency and its determinants within this unique context. Research necessity, therefore, compels the deployment of linguistic tools to establish the baseline English proficiency of secondary school students in the state through researcher-administered independent tests, alongside the utilisation of sociological tools to examine how spatial location, household linguistic background and socio-economic stratification operate interactively – both in dyadic and triadic configurations – to shape that baseline.

1.1 Statement of the Problem

The central problem addressed in the study is that despite decades of English being in use as the language of instruction in Nigerian secondary schools, persistent variations appear to persist in English proficiency among secondary school students – particularly across socio-structural lines. In Benue State, these variations are often masked by reliance on high-stakes Senior School Certificate Examination (SSCE) results. The examinations administered by such external bodies as WAEC and the National Examinations Council [NECO] are increasingly compromised by systemic issues arising from curriculum narrowing, coaching bias and widespread examination malpractice (Imborivungu & Orshi, 2017), thereby rendering authentic communicative proficiency subterranean, concealed beneath the inflated outcomes of these compromised assessments. Scholarly research cautions against using examination populations to assess foundational language skills. For example, Fleckenstein et al. (2016) argue that standardised assessments within the frameworks of native speakers often misrepresent non-native learners' true proficiency – an outcome associated with test conditioning and coaching bias. Similarly, Gitsaki and Coombe (2016) highlight that exam-focused instruction distorts the curriculum. This, according to the scholars, compromises the ecological validity of language evaluation. Seshagiri and Krishna (2023) further emphasise that communicative competence is best evaluated outside the constraints of examination preparations, advocating for alternative assessments that reflect authentic language usage. This study circumvents these limitations by opting for researcher-administered tests of the baseline English proficiency of Senior Secondary School Two (SSS2) students in Benue State, since these students are not yet drawn into the vortex of external examination preparation pressures. This would capture authentic, on-the-spot language proficiency, free from distortions of strategic preparations, coaching bias or

malpractice within the socio-cultural context of secondary school students in Benue State, Nigeria.

1.2 Research Questions

- What are the variations in the baseline English proficiency scores between the observed realities of secondary school students' performance in Benue State and the expected minimum standard in Nigeria?
- What are the spatial location variations in English proficiency scores among secondary school students in Benue State, Nigeria?
- What are the household linguistic variations in English proficiency scores among secondary school students in Benue State, Nigeria?
- What are the socio-economic variations in English proficiency scores among secondary school students in Benue State, Nigeria?
- What are the two-way interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across:

Spatial Location × Socio-economic Stratification;
 Spatial Location × Household Linguistic Background;
 Socio-economic Stratification × Household Linguistic Background.

- What are the three-way interactive variations in English proficiency scores from the combined effects of socioeconomic status, spatial location and household linguistic background on secondary school students in Benue State, Nigeria?

1.3 Null Hypotheses

- There are no significant variations in English proficiency scores between the observed realities of secondary school students' performance in Benue State and the expected minimum standard in Nigeria.
- There are no significant spatial variations in English proficiency scores among secondary school students in Benue State, Nigeria.
- There are no significant household linguistic variations English proficiency scores among secondary school students in Benue State, Nigeria.
- There are no significant socio-economic variations in English proficiency scores among secondary school students in Benue State, Nigeria.
- There are no significant two-way interactive variations in English proficiency scores

among secondary school students in Benue State, Nigeria across:

- Spatial Location × Socio-economic Stratification;
 Spatial Location × Household Linguistic Background;
- Socio-economic Stratification × Household Linguistic Background.
 - There are no significant three-way interactive variations in English proficiency scores from the combined effects of socioeconomic status, spatial location and household linguistic background on secondary school students in Benue State, Nigeria.

2. Theoretical Framework (Variationist Sociolinguistics)

Variationist Sociolinguistics, primarily associated with the work of William Labov (1972), provides a robust theoretical framework for understanding how linguistic variation correlates structures such as location, household linguistic background and socioeconomic stratification. This theoretical approach posits that patterns of language use and proficiency are neither uniform nor random. Rather, according to the theoretical approach, these patterns operate in covariance and correlation with social categories and structural conditions (Labov, 1972). Conceptually speaking, variationist approaches demonstrate that proficiency in a second language like English is influenced by spatial and socio-economic disparities, where urban-rural divides or economic status may predict variations in exposure and usage. From variationist sociolinguistic lens, measures of English proficiency – in phonology, morphosyntax, lexis and communicative performance – are expected to show systematic variations across groups defined by geography (urban/rural), socio-economic position and household language use. Practically speaking, variationist theory interrogates three core expectations that tally up with the study's research questions: (1) spatial gradients in proficiency, where urban contexts typically offer more frequent and higher-quality exposure to English; (2) household-linguistic gradients, where home language repertoires shape the quantity and quality of L2 input and opportunities for use; and (3) socio-economic stratification gradients, where families with access to greater economic, cultural and social capital provide more mediated opportunities for English practice (Tagliamonte, 2012). Also important: the variationist lens foregrounds interaction effects – precisely the two-interactions (Spatial Location × Socio-economic Stratification; Spatial Location × Household Linguistic Background; Socio-economic Stratification × Household Linguistic Background) as well as three-way interactions (Spatial Location × Household

Linguistic Background × Socio-economic Stratification) that Research Questions 5 and 6 seek to establish – looking at the propensity of socio-structural factor not to act in isolation but to intersect with themselves to produce patterned outcomes (Eckert, 2000).

3. Literature Review

3.1 The Concept of English Proficiency

English proficiency is a multifaceted construct in second language acquisition. The concept can be defined as the ability of an individual to understand, produce and interact in English across reading, writing, listening and speaking domains. Looking at multilingual contexts, English proficiency extends beyond grammar to encompass pragmatic competence, vocabulary depth and adaptability to diverse registers (Cummins, 2000; Saville-Troike, 2006). As contemporary research demonstrates, English proficiency is a significant factor in relation to positive correlations with academic outcomes across a multiplicity of subject areas. For example, Ozowuba's (2018) comprehensive study of 225 Nigerian secondary school students revealed strong correlations between English proficiency and some subject-specific outcomes: Biology ($r = .74$); Government ($r = .68$); and Mathematics ($r = .62$). These findings support theoretical arguments that English proficiency serves as a skill foundational to content area learning in educational systems that utilise English as the medium of instruction (Taye & Mengesha, 2024; Lin, 2021; Rudd & Honkiss, 2020; Grisso, 2018).

3.2 Spatial Location Variations in English Proficiency

Spatial location, particularly the urban-rural divide, drives significant variations in English proficiency, which reflects broader socio-structural variations in resource allocation and educational infrastructure. Urban areas typically offer superior access to qualified teachers, libraries and digital tools, which enable students to engage more effectively with English as a medium of instruction. In rural settings, on the other hand, schools are characterised by understaffing and reliance on unqualified teachers who favour the use of indigenous languages (Obiakor, 2024). Conceptual models of educational geography - like those drawn from human capital theory - posit that locational dynamics operate to elevate the levels of language proficiency by facilitating exposure to diverse linguistic inputs and extracurricular English immersion, which can lead to measurable performance gaps (Alokan & Arijesuyo, 2013). Adeyeye's (2017)

analysis of examination records from south-western Nigeria shows a clear divide: urban students consistently achieve higher scores in English literacy than their rural peers, who often lag behind by 20–30 per cent. The reasons are not hard to find: variations in infrastructure and limited parental support for homework play an important role. Similar patterns appear elsewhere. Studies from South Africa, India and China report that rural learners struggle compared with those in cities, largely because of unequal access to educational resources (Azam et al., 2013; Taylor, 2009). These findings suggest that spatial location is a structural driver of variations in English proficiency.

3.3 Household Linguistic Background Variations in English Proficiency

Household linguistic background is a significant phenomenon behind variations in English acquisition, particularly in multilingual societies. Cummins (1979) argues, through his interdependence hypothesis, that first-language competence can either aid or obstruct second-language learning, depending on the circumstances of instruction. Building on this, Vygotsky's sociocultural theory views language growth as a process shaped by social interaction, where family repertoires may serve as a support or a barrier to English acquisition. In Nigeria, these influences play out differently: rural households tend to use the mother tongue almost exclusively, whereas urban families are more likely to incorporate English into everyday communication (Bangbose, 2011). Comparable findings exist across Africa. In Ghana, for example, Owu-Ewie (2006) highlights the consequences of English-only language policies, while Hungi et al. (2018) in Kenya shows how home language practices shape early confidence in English. Globally speaking, bilingual households enrich linguistic repertoires, but where English is absent at home, schools become the sole site of acquisition, limiting proficiency.

3.4 Socio-economic Variations in English Proficiency

Socio-economic presents itself as a robust predictor of variations in English proficiency outcomes, with systematic research documenting substantial relationships between family economic resources and language learning achievement. These relationships operate through multiple mechanisms: including differentials in access to educational resources, quality instruction and supportive learning environments. For empirical evidence, Schwab and Lew-Williams's (2016) conceptual and empirical overview of literature identifies substantial socio-economic gradients in

early language experiences that establish trajectories which extend to formal schooling. Their research highlights vast variations in language exposure. Children raised in professional households are exposed to millions more words than those from less advantaged backgrounds. These early differences create cumulative advantages that compound over extended time periods, establishing persistent variations in achievement. International findings point in the same direction. Studies from the United States, India and South Africa show that social and economic position plays a decisive role in shaping both literacy and second-language outcomes (Azam et al., 2013; Gamoran, 2001). Nigeria is no exception: pupils from more privileged households usually achieve higher results, whereas those from poorer backgrounds often contend with obstacles such as weak reading culture, inadequate parental support and, in some cases, poor nutrition (Adewale, 2012). Socio-economic variations are therefore significant realities in English proficiency.

3.5 Empirical Gap and Justification

The literature reviewed identifies patterns of variations in English proficiency. The studies reviewed, however, have failed to integrate them into a unified model within the secondary school context of Benue State. In essence, none of the studies have simultaneously modelled spatial, socio-economic and household-linguistic variations, nor explored their interactions using malpractice-free, researcher-administered proficiency testing. Crucially, there is no state-wide, independently measured baseline of English proficiency for secondary school students in Benue State. This lack of comprehensive, triangulated evidence – capturing multiple dimensions and their interplay – constitutes the core empirical gap this study seeks to address.

4. Research Methodology

This study adopted a cross-sectional, causal-comparative (ex post facto) research design to examine the relationships between pre-existing socio-structural factors (spatial location, household linguistic background and socio-economic stratification) and English proficiency among Senior Secondary School (SSS) II students in public

5. Presentation of Results

Null Hypothesis One: There are no significant variations in English proficiency scores between the observed realities of secondary school students' performance in Benue State and the expected minimum standard in Nigeria.

secondary schools in Benue State, Nigeria. A sample of 900 students was selected through a multi-stage stratified sampling procedure designed to ensure adequate statistical power for a $2 \times 3 \times 3$ factorial design, with approximately 50 participants drawn from each of the 18 experimental cells. The state was first stratified into the three senatorial districts, followed by urban-rural classification of schools, after which schools were purposively selected to capture variations in household linguistic backgrounds and socio-economic profiles. Proportionate stratified random sampling was then used to select participating students. Data were collected using the Researcher-Administered English Proficiency Test (REPT), which assessed reading, writing, listening and speaking skills through adapted WAEC and NECO items, and the Socio-Structural Factors Questionnaire (SSFQ), which measured spatial location, household linguistic background and socio-economic stratification. Both instruments were subjected to face and content validation by experts in applied linguistics and educational sociology. The reliability of the REPT was established using the Kuder-Richardson Formula 20 (KR-20), while Cronbach's alpha was used to determine the internal consistency of the SSFQ, with coefficients of 0.70 or higher considered acceptable. Following approval from school authorities, the REPT and SSFQ were administered sequentially using unique identifiers to ensure anonymity while matching responses. Data were analysed using descriptive statistics and inferential statistics. A one-sample *t*-test was used to test Null Hypothesis 1, which examined whether the mean English proficiency score differed significantly from the established benchmark of 40%. One-way analysis of variance (ANOVA) was employed to test Null Hypotheses 2–4, which examined differences in English proficiency based on spatial location, household linguistic background and socio-economic stratification, respectively. Two-way factorial ANOVA was used to test Null Hypothesis 5, which examined the interaction effects among pairs of the three socio-structural factors on English proficiency, while three-way factorial ANOVA was used to test Null Hypothesis 6, which examined the combined interaction effect of spatial location, household linguistic background and socio-economic stratification on English proficiency. All hypotheses were tested at the 0.05 level of significance.

Table 1: One-Sample *t*-Test Comparing English Proficiency Scores with the 40% Benchmark

Variable	N	Mean $\pm$ SD	Benchmark	<i>T</i>	df	<i>P</i>
English Proficiency Score	900	8.92 $\pm$ 3.59	40% (8.00)	7.728	899	< .001

Note. Benchmark = 40% (equivalent to 8.00 marks on the 20-mark Research English Proficiency Test [REPT]); SD = standard deviation; *df* = degrees of freedom.

The one-sample *t*-test presented in Table 1 reveals a statistically significant variation in English proficiency scores between the observed performance of secondary school students in Benue State and the expected minimum standard of 40% (8.00 marks), $t(899) = 7.728$, $p < .001$. Therefore, the null hypothesis that there are no significant variations in English proficiency scores between the observed realities of secondary school students' performance in Benue State and the expected minimum standard in Nigeria is rejected.

Null Hypothesis Two: There are no significant spatial variations in English proficiency scores among secondary school students in Benue State, Nigeria

Table 2: One-Way ANOVA Analysis of Spatial Variations in English Proficiency Scores among Secondary School Students in Benue State

Spatial Location	N	Mean $\pm$ SD	<i>F</i>	<i>Df</i>	<i>P</i>
Urban	537	10.94 $\pm$ 2.75	787.801	(1, 898)	< .001
Rural	363	5.94 $\pm$ 2.42			

Note. SD = standard deviation. Levene's test indicated that the assumption of homogeneity of variances was met, $F(1, 898) = 1.310$, $p = .253$.

The results of the one-way analysis of variance (ANOVA) presented in Table 2 reveal a statistically significant spatial variation in English proficiency scores among secondary school students in Benue State, $F(1, 898) = 787.801$, $p < .001$. Urban students ($M = 10.94$, $SD = 2.75$) obtained significantly higher English proficiency scores than their rural counterparts ($M = 5.94$, $SD = 2.42$). Prior to the ANOVA, Levene's test confirmed that the assumption of homogeneity of variances was satisfied, $F(1, 898) = 1.310$, $p = .253$. Therefore, the null hypothesis stating that there are no significant spatial variations in English proficiency scores among secondary school students in Benue State, Nigeria, is rejected.

Null Hypothesis Three: There are no significant household linguistic variations English proficiency scores among secondary school students in Benue State, Nigeria.

Table 3: One-Way ANOVA of Household Linguistic Variations in English Proficiency Scores among Secondary School Students in Benue State

Household Linguistic Background	N	Mean $\pm$ SD	<i>F</i>	df	<i>P</i>
Mother Tongue only	276	7.70 $\pm$ 3.49	29.121	2, 882	< .001
English and Mother Tongue	319	9.26 $\pm$ 3.28			
English only	305	9.69 $\pm$ 3.70			

Note: Dependent Variable = English Proficiency Score. Mean differences were tested using the univariate ANOVA procedure. Partial Eta Squared (η^2) for household linguistic background = .062.

The results of the one-way analysis of variance (ANOVA) presented in Table 3 reveal a statistically significant difference in English proficiency scores among secondary school students based on household linguistic background in Benue State, Nigeria, $F(2, 882) = 29.121$, $p < .001$. Bonferroni post hoc comparisons indicate that students from English-only households have significantly higher English proficiency scores than those from mother tongue-only households ($p = .005$) and those from English and mother tongue households ($p < .001$). Similarly, students from mother tongue-only households differ significantly from those from English and mother tongue households ($p < .001$). Therefore, the null hypothesis stating that there are no significant household linguistic variations in English proficiency scores among secondary school students in Benue State, Nigeria is rejected.

Null Hypothesis Four: There are no significant socio-economic variations in English proficiency scores among secondary school students in Benue State, Nigeria.

Table 4: One-Way ANOVA of Socio-Economic Variations in English Proficiency Scores among Secondary School Students in Benue State

Socio-Economic Stratification	N	Mean $\pm$ SD	F	df	P
Low	248	7.57 $\pm$ 3.67	7.034	2, 882	.001
Middle	241	9.76 $\pm$ 3.49			
High	411	9.26 $\pm$ 3.38			

Note: Dependent Variable = English Proficiency Score. Mean differences were tested using the univariate ANOVA procedure. Partial Eta Squared (η^2) for socio-economic stratification = .016.

The results of the one-way analysis of variance (ANOVA) presented in Table 4 reveal a statistically significant difference in English proficiency scores among secondary school students based on socio-economic stratification in Benue State, Nigeria, $F(2, 882) = 7.034, p = .001$. Bonferroni post hoc comparisons show that students in the low socio-economic group differ significantly from those in the high socio-economic group ($p = .001$), while students in the middle socio-economic group also differ significantly from those in the high socio-economic group ($p = .042$). However, there is no significant difference between the low and middle socio-economic groups ($p = 1.000$). Therefore, the null hypothesis stating that there are no significant socio-economic variations in English proficiency scores among secondary school students in Benue State, Nigeria is rejected.

Null Hypothesis Five: There are no significant two-way interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across:

Spatial Location $\times$ Socio-economic Stratification;

Spatial Location $\times$ Household Linguistic Background;

Socio-economic Stratification $\times$ Household Linguistic Background.

Table 5: Two-way interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across spatial location, socio-economic stratification and household linguistic background

Source of Interactive Variations	F	df	P	Partial Eta Squared (η^2)
Spatial Location $\times$ Socio-economic Stratification	10.003	2, 882	<.001	.022
Spatial Location $\times$ Household Linguistic Background	4.466	2, 882	.012	.010

Note: Dependent Variable = English Proficiency Score. Mean differences were tested using the univariate ANOVA procedure.

The results of the two-way analysis of variance (ANOVA) presented in Table 5 reveal that there were statistically significant interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across spatial location and socio-economic stratification, $F(2, 882) = 10.003, p < .001$; spatial location and household linguistic background, $F(2, 882) = 4.466, p = .012$; and socio-economic stratification and household linguistic background, $F(4, 882) = 4.618, p = .001$. Therefore, the null hypothesis which states that there are no significant two-way interactive variations in English proficiency scores among secondary school students in Benue State, Nigeria across spatial location $\times$ socio-economic stratification, spatial location $\times$ household linguistic background and socio-economic stratification $\times$ household linguistic background is rejected. This indicates that the combined effects of these social factors significantly influence variations in students' English proficiency scores.

Null Hypothesis Six: There are no significant three-way interactive variations in English proficiency scores from the combined effects of socioeconomic status, spatial location and household linguistic background on secondary school students in Benue State, Nigeria.

Table 6: Th Three-way interactive variations in English proficiency scores from the combined effects of socio-economic stratification, spatial location and household linguistic background among secondary school students in Benue State, Nigeria

Source of Interactive Variations	df	F	p-value	Partial η^2
Socio-economic Stratification $\times$ Spatial Location $\times$ Household Linguistic Background	4, 882	22.907	< .001	.094

Note: Dependent Variable = English Proficiency Score. Mean differences were tested using the univariate ANOVA procedure.

The results of the three-way analysis of variance (ANOVA) presented in Table 6 reveal that there was a statistically significant interactive variation in English proficiency scores from the combined effects of socio-economic stratification, spatial location and household linguistic background among secondary school students in Benue State, Nigeria, $F(4, 882) =$

22.907, $p < .001$. Therefore, the null hypothesis which states that there are no significant three-way interactive variations in English proficiency scores from the combined effects of socio-economic status, spatial location and household linguistic background on secondary school students in Benue State, Nigeria is rejected. This indicates that the combined influence

of socio-economic stratification, spatial location and household linguistic background significantly accounts for variations in students' English proficiency scores.

6. Discussion of Findings

To begin with, the one-sample *t*-test indicated that the mean English proficiency score (8.92, *SD* = 3.59) was statistically significantly higher than the 40% benchmark (8.00), $t(899) = 7.728$, $p < .001$. However, the effect size of 0.26 indicates a small practical effect, demonstrating the important distinction between statistical and practical significance. Although the difference was statistically significant, its magnitude was modest: students scored only 0.92 marks above the benchmark on the 20-mark test, equivalent to approximately 4.6 percentage points (44.6% compared with the 40% benchmark). The large sample size ($N = 900$) was thus sufficient to detect a significant difference, but the practical improvement over the minimum standard was relatively small. This modest aggregate margin is consistent with the disaggregated findings discussed below: rural students (29.7%) fell well below the benchmark while urban students (54.7%) exceeded it comfortably, indicating that the reassuring state-wide average conceals substantial socio-structural disparity, in line with concerns that pooled statistics can obscure authentic proficiency differences (Fleckenstein, Leucht, Pant & Köller, 2016).

Turning to the individual socio-structural factors, spatial location produced the largest effect of any single factor, $F(1, 898) = 787.801$, $p < .001$, with urban students (54.7%) far outperforming rural students (29.7%). This mirrors urban-rural gaps reported elsewhere in Nigeria (Adeyeye, 2017; Alokun & Arijesuyo, 2013) and internationally (Azam, Chin & Prakash, 2013; Taylor, 2009), and is consistent with the resource and staffing disadvantages of rural schools described by Obiakor (2024).

Similarly, household linguistic background followed a clear, theoretically predicted gradient: English-only (48.5%) > English-and-mother-tongue (46.3%) > mother-tongue-only (38.5%), $F(2, 882) = 29.121$, $p < .001$, $\eta^2 = .062$, with all pairwise differences significant. This supports Cummins's (1979) interdependence hypothesis and Bamgbose's (2011) account of English's greater domestic role in urban Nigerian households, and parallels comparable effects in Ghana (Owu-Ewie, 2006) and Kenya (Hungu, Njagi, Wekulo & Ngware, 2018). The Idoma and Tiv phonological interference documented by Isa and Yakubu (2023), Shaahu and Okwudishu (2015) and

Sebele (n.d.) offers a plausible linguistic mechanism, compounded by the policy transition from mother-tongue to English-medium instruction (Federal Republic of Nigeria, 2013).

By comparison, socio-economic stratification was significant but small in effect, $F(2, 882) = 7.034$, $p = .001$, $\eta^2 = .016$, and departed from a strictly linear gradient: the middle-SES group (48.8%) scored significantly higher than the high-SES group (46.3%, $p = .042$), while low- and middle-SES groups did not differ significantly ($p = 1.000$). This non-linearity qualifies the broadly linear SES gradients reported elsewhere (Schwab & Lew-Williams, 2016; Adewale, 2012) but is consistent with evidence that the SES-achievement relationship need not be linear (Caro, McDonald & Willms, 2009), and may also reflect the REPT's design to capture authentic competence rather than the coached, examination-style performance associated with higher-SES households (Gitsaki & Coombe, 2016).

Beyond these main effects, all three two-way interactions were significant (spatial location $\times$ socio-economic stratification, $F(2, 882) = 10.003$, $p < .001$; spatial location $\times$ household linguistic background, $F(2, 882) = 4.466$, $p = .012$; socio-economic stratification $\times$ household linguistic background, $F(4, 882) = 4.618$, $p = .001$), as was the three-way interaction, $F(4, 882) = 22.907$, $p < .001$, $\eta^2 = .094$ – a larger effect than any two-way term alone. This confirms the variationist premise that social categories condition rather than merely add to one another's effects (Labov, 1972; Eckert, 2000; Tagliamonte, 2012): disadvantage compounds most sharply for rural, mother-tongue-dominant, low-income students.

Taken together, these findings demonstrate that English proficiency in Benue State is systematically stratified by, and shaped through the intersection of, spatial, linguistic and economic structures, with effect sizes ranging from large (spatial location) to small (socio-economic stratification and the overall benchmark comparison).

7. Conclusion

This study set out to establish an independent, non-examination baseline of English proficiency among SSS II students in Benue State and to determine how far this baseline is shaped by spatial location, household linguistic background and socio-economic stratification, singly and in combination. The evidence confirms that English proficiency in the state is not a uniform outcome but a socially stratified one: the overall mean exceeded the 40% national minimum,

but only marginally so, and this modest margin conceals a rural sub-population performing well below standard alongside an urban sub-population performing comfortably above it. Spatial location produced by far the largest effect of any single factor, household linguistic background produced a clear and theoretically consistent gradient, and socio-economic stratification, while significant, departed from a strictly linear pattern. All three factors interacted significantly, and the three-way interaction explained more variance than any two-way term alone, confirming that disadvantage in this context compounds rather than merely accumulates. These findings substantiate the Variationist Sociolinguistics framework guiding the study: proficiency outcomes covary systematically with the social structures in which learners are embedded, and any response that treats Benue State's students as a homogeneous population risks addressing an average that describes almost no one precisely.

8. Recommendations

Based on these findings, the study recommends that:

- Government and school authorities prioritise the deployment of qualified English teachers and instructional resources to rural schools, given the scale of the spatial gap identified.
- Schools serving predominantly mother-tongue-dominant communities (Tiv, Idoma, Iggede) build in structured English literacy support that anticipates the specific phonological transfer difficulties documented for these languages, rather than assuming uniform readiness for English-medium instruction.
- Community and school programmes encourage greater use of English in the home, particularly in rural and mother-tongue-only households, through parental literacy initiatives and English-language community media, without displacing indigenous languages.
- Interventions addressing socio-economic disadvantage be designed with attention to the non-linear pattern observed here, testing rather than assuming that higher household income alone raises English proficiency.
- Given the significant interaction effects, interventions target specific socio-structural configurations, such as rural, mother-tongue-dominant, low-income learners, rather than applying single-factor measures uniformly across the state.
- WAEC, NECO and state examination bodies consider incorporating researcher-administered, non-high-stakes diagnostic assessments into the SSS II curriculum, to track authentic proficiency ahead of final examinations and reduce reliance on coaching-inflated indicators.
- Future research adopt qualitative or mixed-methods designs to probe the unexpected middle-SES pattern, and extend the REPT and SSFQ instruments to other Nigerian states to test the generalisability of these socio-structural effects.

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