

# Gender and Senior Secondary School Students' Achievement in English Reading Comprehension in Ibadan, Nigeria

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## Abstract

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*This study examined the moderating effect of gender on students' achievement in English reading comprehension among public senior secondary school students in Ibadan, Nigeria. The pretest-posttest control group quasi-experimental design was adopted. Six secondary schools were selected randomly from three Local Government Areas in Ibadan, Nigeria. Six intact class of Senior Secondary School II students participated. Instrument used was Achievement Test in English Reading Comprehension ( $r=0.85$ ). Data were analysed using analysis of covariance and Bonferroni post-hoc test at 0.05 level of significance. The main effects of gender was significant ( $F_{(1, 168)} = 5.79$ , partial  $\eta^2 = 0.04$ ) in favour of female students. The two-way interaction effects of treatment and gender were not significant. Based on the findings, it is recommended that gender sensitive-strategies should be adopted by the English teachers in order to cater for the students' deficiency in English reading comprehension.*

**Keywords:** Gender, Interactive invention strategy, Achievement, Reading Comprehension

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## Introduction

Reading is the process of decoding and comprehending written language, including texts, symbols, and sentences. It is a fundamental skill that plays a crucial role in individual and societal development. Reading provides access to vast amounts of information, enabling individuals to learn new things, expand their knowledge, and broaden their perspectives. It fosters empathy, critical thinking, and self-awareness, contributing to personal growth and development. Reading enhances language skills, vocabulary, and comprehension, leading to effective communication, and can be a source of entertainment, relaxation, and stress relief. Reading skills are essential for economic growth, as they enable individuals to access information, learn new skills, and adapt to changing technologies. It can bridge the gap between social classes, providing equal access to knowledge and opportunities.

Reading is also known to be the recognition of words and symbols in which students are meant to make meaningful inferences. According to Fakeye and Fakeye (2016), reading is a means by which the writer

and the reader interact, and this involves the recognition of words, phrases as well as sentences. Kolawole and Bateye (2017) opine that reading is a need for success in formal education and that literacy and education are defined by reading. Likewise, Adeyinka (2020) sees reading as an indispensable language skill that is long-lasting and is required for the acquisition of literacy. Therefore, reading though a receptive skill is a mental activity that exposes and helps the reader to unlock an infinite world of knowledge in any field of human endeavor. The ability to read guarantees success in examinations, engenders correct application of instruction and gives the reader access to information and knowledge that are coded in books.

According to Falayi (2015), comprehension is a degree of structural knowledge and understanding of a text where the reader interacts, responds, or reacts to what has been read in a meaningful way. No doubt, the ability to read is especially measured through quantitative and qualitative dimensions of comprehension (Kolawole and Jire-Alao, 2014). Reading is primarily linguistic or language-

based in nature while comprehension is the cognitive aspect of reading (Robert, Norman, and Cocco, 2015). Comprehension is integrated into the teaching of reading in English language classrooms (Mba and Iduma, 2016). Thus, reading comprehension is known to be constructing a mental representation of textual information and its interpretation. It is very important to individuals because reading comprehension helps to discover new things by enabling the students to educate themselves in any area of life not necessarily in the English language alone but in other subjects they read too.

Reading comprehension refers to an individual's ability to understand and interpret written text. It involves not only decoding the words on the page, but also making meaning out of them by connecting ideas, inferring information, and integrating background knowledge. This crucial skill is necessary for students of all ages and has a significant impact on academic success. Proficient reading comprehension allows individuals to engage with a variety of texts, from textbooks and novels to news articles and research papers, enabling them to gather information, think critically, and communicate effectively. Developing strong reading comprehension skills entails practice, active engagement, and the use of various strategies like predicting, questioning, and summarizing, ultimately leading to a deeper understanding of the text.

Reading comprehension (RC) encourages genuine reader engagement with the text and the growth of the mind, imagination, and creative side. It acts as a link between critical reading and casual reading, between morphemes, lexicons, characters, and context. With this, their self-image is built and as such, reading comprehension is very necessary in this generation. Similarly, the National Reading Panel (NRP, 2000) avers that attaining comprehension of a text comprises two basic skills which are word knowledge and reasoning in reading. Again, **Zhu, Li, Yu, Cheong, and Liao** (2016) has suggested that there is a relationship between students' ability to

comprehend text, their reading skills, and their ability to process information. In other words, when learners are not able to recognize words, they will be unable to progress to the processing and reading of the words which aids the comprehension of the gist in the text. Adeyinka (2020) says reading comprehension involves a writer or an encoder, the meaning which is the contents to be communicated, and a reader who is also known to be a decoder. In other words, it helps to discover new things by enabling the students to educate themselves in any area of life.

NPE (2013) enumerated objectives of English reading comprehension which include; students being able to comprehend and interpret literary and non-literary texts to develop critical thinking and problem-solving skills, students being able to identify and analyze the main ideas, themes, and supporting details in a text to enhance their understanding of the subject matter, students will be able to demonstrate an understanding of vocabulary in context to improve their communication skills, students will be able to recognize and interpret literary devices such as metaphor, simile, and personification to appreciate literary works, students will be able to evaluate and synthesize information from multiple sources to develop their research skills, and students will be able to demonstrate an understanding of the cultural and historical context in a text to foster cultural awareness and appreciation.

The English curriculum was patterned and planned by the four language skills - listening, speaking, reading, and writing. With this curriculum, it is expected that learners' reading ability and communication competence will be highly developed. Also, with the effective implementation of the curriculum, the products of our school system would be sufficiently empowered to contribute to society at large. All of these skills must be practiced by students and cannot be separated from one another if one expects to be able to communicate freely in English (Nurhayati et al, 2018). However, it cannot be denied that English is still a crucial problem for Nigerian students. As a

matter of fact, until today most students from junior high school up to university level have difficulties in all of these skills. Reading comprehension and summary writing are embedded in reading and writing language skills.

Despite the emphasis placed on reading comprehension, students' academic achievement has been poor and inconsistent. According to Otache, (2020), the reading ability of students in Nigeria is still low. Babalola (2020) observed low reading ability among students in secondary school. Fakeye (2018) asserted that reading comprehension is one of the causes of failure in English Language. It means that students have to perform excellently in WAEC English Language Paper 1 which involves reading comprehension to pass English Language. Despite the importance of reading comprehension to academic achievement, Nigerian students still perform below expectations in reading comprehension (Awolere, 2016). Likewise, the WASSCE Chief Examiners' reports in the English Language in the year 2017 to 2023 revealed that the failure rate in the English Language is predominant in the aspect of reading comprehension. This indicates that students are yet to master the skills of reading comprehension which hinges on word recognition and vocabulary knowledge. In the same vein, Olagunju (2020) stated that a deficiency in students' reading comprehension contributed to low performance in Prose Literature.

In support of the above report, the analysis of the available data on students' performance in the English language in WASSCE May/June from 2010 to 2015 shows that less than 30% passed at credit level though there was an improvement in 2016 and 2017 where 40% and 60.9% of the candidates scored between A1 and C6 respectively. However, there was a reversed case in 2018 where Oyo State came 26th in the West African Examinations Council (WAEC) ranking having 21.03%. This shows that the performance in English in Oyo State within the stated periods has not only been very poor but also inconsistent. The implication

of this is that there seems to be an improvement in the trend of students' performance in the latter years; this may be due to a series of workshops organized by the Oyo state government. Not only that, it was gathered that many teachers sensitized the students on the examiners' reports during these years, many coaching centers also sprang up to complement the school activities and for some time there was not any incessant change in the teachers' posting. Nevertheless, looking at the performance in the year 2018, there was a reverse in the performance as Oyo State came 26th in the WAEC ranking of the states, which makes the percentage of student's success in the examination to be 21.03%. There were no statistical analyses of students' performance in 2019 and 2020. This is due to some corrections that WAEC claimed were going on at the time of gathering these reports. Nonetheless, the performance was still low nationwide in English Language examinations

Several factors have been adduced by English educators and researchers to be responsible for poor reading comprehension and summary writing. Maala and Mkandawire (2022) identified factors such as the practice of loud reading, independent reading, and translation methods creating difficulty in comprehension and discourse or text understanding. Pamuji (2015) observed a lack of vocabulary mastery, there are still many factors that affect students' reading comprehension and writing comprehension like students' interest, motivation, readiness, and attitude. Khan (2007), observed teachers generally do not use modern teaching strategies in reading English rather they emphasize memorizing and preparing students for public examinations.

The conventional method is insufficient in educating an individual who is supposed to have contemporary skills (Pallavi et. al., 2020). Khalaf and Zin (2018) stated that the conventional learning method is developed and centered on the instructor and that information is taught by the instructor or from resources like textbooks and lectures. Akingbemisilu (2017) reported that the teacher is the central focus of the class setting in the conventional teaching

method, most times the teacher gives the information, answers the student's questions, and controls the behaviors of the students. He added that lessons are teacher-centered and discipline-oriented as students depend directly on the teacher for instruction, guidance, and feedback. Traditional methods are teacher-centered as the teacher is more active while the students only obtain knowledge from the teacher without being actively involved in the process of learning and without building their engagement level with the subject matter and learning theoretically instead of practically.

Efforts have been made by various researchers and English educators to come up with instructional strategies that will promote effective reading comprehension and summary writing, and increase and speed up their conceptual understanding. Thus, there is a need for more efforts that will improve students' achievement in SSCE English language skills.

Gender is a basic categorization that is recognized and followed in all human cultures as a source of defining a person and social identity. Gender gaps are thought to affect mood and motivation, as well as the learning process. Nowadays, scholars are eager to assign gender differences to sociocultural influences that place role models on females and promote a favorable outlook toward second language learning. One of the Millennium Development Goals (MDG) is gender equality. As Ayeni (2022) stated, in most societies, the roles of women are knocked to the floor, preventing women from participating in, and benefitting from development efforts. They added that some subjects such as science and mathematics are branded masculine, while others like home economics, and secretarial studies are branded feminine. Ibeneme and Akinlabi (2021) observed that in a contemporary context, men and women classification is a world where patriarchal values predominate, it is a world where there are general sets of beliefs that women are inferior to men and therefore, the power relations attached to their ideas, and beliefs, give men more power, more opportunities and more conscientious over and

above women in the society.

Research on gender disparities in a foreign language learning setting has shown that females are more encouraged to study foreign languages than people (Qian, Schwartz, Jung, Zhang, et al., 2024). Some research has been conducted on students' attitudes and motivation based on gender perspectives. Aldosari (2014) investigated the differences between 50 university students in the attitudinal and motivational patterns in EFL learning. The results showed that female students have better positive attitudes and higher motivation. By researching a specific skill, Murtafi'ah and Putro (2020) also found that females higher attitude in both academic and recreational reading than males. A similar pattern was also recorded by Frijters et al. (2019) that reading motivation and reading performance were affected by gender disparities. Another study (Akdemir, 2019) employed a mini AMTB to determine the students' willingness to learn and revealed that females have a more meaningful willingness to listen to L2. Although many researchers found the superiority of female students, several studies reported different findings that there is no significant effect of gender disparities on attitudes and motivation toward EFL learning (Niaz et al., 2018). The inconclusive findings requires further research on effect of gender.

### **Statement of the Problem**

Evidence abounds that the output component of the present-day English Language is not fully actualized and the expected learning outcomes are still far from the stated goals. English Language teachers do grapple with deep-rooted challenges of teaching the curriculum with innovative student-centered strategies. The lack of these strategies in teaching has developed a poor attitude of students towards the English Language, thereby affecting their achievement and hindering them from retaining and applying what they have learned. For students to learn effectively they need to interact well with the teacher and their fellow students during classroom learning, so there is a need to use interactive strategies to

teach the English reading comprehension. Giving the role of gender in language learning, it is pertinent to examine gender effect on reading comprehension achievement of students. Hence, this study investigated the effects of students' gender on achievement in English reading comprehension in public senior secondary schools in Ibadan, Nigeria.

### Objectives of the Study

The following objectives guided the study:

1. examine the main effects of gender on learners' achievement in reading comprehension.
2. examine the interaction effects of treatment and gender on students' achievement in reading comprehension

The following hypotheses were tested at  $p < .05$  level of significance.

Ho1: There is no significant main effect of gender on secondary school students' achievement in English reading comprehension

Ho2: There is no significant interaction effect of treatment and gender on secondary school students' achievement in English reading comprehension

### The Scope of the Study

This study covered six public Senior Secondary Schools II Students in Ibadan, Nigeria. The concept of reading comprehension was taught. The English Students' Achievement Test was adapted from their reading text.

### Significance of the study

The study is considered significant because the findings would provide relevant information on the effects of gender on achievement in English reading comprehension. This study would expose them to some level of the influence that gender has on achievement. The study will hopefully provide some data on some aspects of gender imbalance in learning English language skills. This study would guide the curriculum planners on the instructional strategies to recommend, that will improve learners' achievement in English Language. This

study may also provide a basis for further research.

### Literature Review

Several research have been conducted on gender and students' achievement in English Reading Comprehension. Research conducted by Olufunke and Elizabeth (2020) on Perspectives of Gender Differences, Students' Achievement, and Attitude to Reading Comprehension identified differences between gender groups in reading performance are not as clear-cut. Various interpretations given by researchers often reported discrepancies between males and females in reading outcomes. Not much work has been done on the investigation of gender differences, achievement in and attitude to reading, though there is consensus that girls have been found in many Nigerian researches to have only a slight positive but statistically insignificant edge over boys in language performance. Also, it has been proven that a positive attitude often leads to successful learning and that students learn more effectively and achieve better when they are interested in what they learn. This study is interested in the provision of clear evidence that gender and attitude influence achievement in reading comprehension.

A similar study conducted by Oda and Abdul-Kadhim (2017) investigated the relationship between gender and reading comprehension achievement at the college level. This study follows Barrett's Taxonomy in dividing reading comprehension into several levels (Literal, Inferential, Critical, and Appreciative), It compares the achievement of the two groups of gender (males and females) on each of the four levels of reading comprehension to see the relationship between gender and reading comprehension. The participants are 154 students (males and females), and they have to answer twenty open-ended questions. Data analysis is done by SPSS software according to the T-test formula. The result of the study shows that there are no statistically significant differences between the two groups of gender on three levels of reading comprehension (literal,

inferential, and appreciative), but for the “critical level”, females are outperforming males at a statistically significant level. The study suggests the need for future studies about the relationship between gender and reading comprehension but with a larger sample and wider context (more than one context) as well as different methodologies especially different test forms.

A related study by Abdullahi and Bichi (2015) examined the gender difference in the performance of students in the English language in Nigerian secondary schools. An ex-post facto design of descriptive research was adopted for the study. A proforma was used to collect data from a sample of three hundred (300) students, selected using a stratified random sampling procedure from the Science secondary schools in Kano state Nigeria. The data collected were the student's performances in the English language achievement test. The data were analyzed using descriptive statistics and an Independent-Sample t-test to test the hypotheses at a 0.05, level of significance. Overall results showed that students perform below average and a significant gender difference exists in English performance, significant gender difference was also observed concerning school location; Females performed above average in both urban and rural schools while males

performed below average. It was recommended that English teachers should regularly test students on the various English concepts and feedback provided should be used to prepare them for credible performance in English at both internal and external examinations.

### Methodology

The pretest- post-test, control group, quasi quasi-experimental research design was adopted for this study. All Senior Secondary II English Students in Ibadan served as the population for the study. Out of these eleven Local Government Areas in Ibadan, three (Ibadan North, Ibadan North-East, Ibadan North-West) were randomly selected for the study. From each of the three Local Government Areas six schools were used for the study. Six intact classes of SS II English classes participated in the study. Instrument used was Achievement Test in English Reading Comprehension ( $r=0.85$ ). The data obtained were analysed using descriptive statics and Analysis of Covariance (ANCOVA) at 0.05 level of significance.

### Results

**H<sub>01</sub>:** There is no significant main effect of gender on senior secondary school English students' achievement in reading comprehension.

**Table.1: Summary of Analysis of Covariance (ANCOVA) of Post-Achievement by Treatment and Gender**

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3838.531	6	639.755	8.847	.000	.247
Intercept	43865.360	1	43865.360	606.579	.000	.789
Pre-Achievement	324.257	1	324.257	4.484	.036	.027
Treatments	2853.174	2	1426.587	19.727	.000*	.196
Gender	418.865	1	418.865	5.792	.017*	.035
Treatments x Gender	35.221	2	17.610	.244	.784	.003
Error	11715.185	162	72.316			
Total	182646.000	169				
Corrected Total	15553.716	168				

R Squared = 0.25 (Adjusted R Squared = 0.22) \* denotes significant  $p < 0.05$

Table 1 reveals that there is a significant main effect of gender on secondary school English students' achievement in reading

comprehension ( $F_{(1, 168)} = 5.79$ ,  $p < 0.05$ ; partial  $\eta^2 = 0.04$ ). The effect is 4.0%. This shows that 4.0% of the 22.0% variation (Adjusted  $R^2 = 0.22$ ) in

senior secondary school English students' achievement in reading comprehension in this model is due to the significant main effect of the gender. Hence, hypothesis 2 was rejected. To

explore the magnitude of the significant main effect across gender, the estimated marginal means of the groups were carried out and the result is presented in **Table 2**.

**Table 4.4: Estimated Marginal Means for Post-Achievement by Gender**

Gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Male	29.53	0.93	27.69	31.37
Female	32.72	0.94	30.86	34.57

Table 2 reveals that the female senior secondary school English students have the higher adjusted post-achievement mean score in reading comprehension (32.72) than their male senior secondary school English students' counterparts (29.53). This indicates that female secondary school English students performed better than their male counterparts in reading comprehension.

**Ho2:** There is no significant interaction effect of treatment and gender on senior secondary school English students in reading comprehension

Table 1 reveals that there is no significant interaction effect of treatment and gender on senior secondary school English students' achievement in reading comprehension ( $F_{(2, 167)} = 0.24, p > 0.05$ ). Hence, hypothesis 3 was not rejected. This indicates that treatment and gender do not affect secondary school English students' achievement in reading comprehension.

### Discussion of Findings

#### Effect of Gender on Senior Secondary School English Students' Achievement in Reading Comprehension.

There is a significant main effect of gender on senior secondary school English students' achievement in reading comprehension in favour of female students. It can be stated that gender differences affect reading comprehension. Research has shown that girls often develop language and verbal skills earlier than boys (Abdullahi and Bichi, 2015). According to these authors, this early

development can lead to better reading comprehension skills as they progress through school. Girls tend to read more frequently and for pleasure more often than boys and this increased exposure to reading can enhance their comprehension skills over time. According to Daniela, and Lytras (2019), female students perform better than male students in reading comprehension for the following reasons; Girls have better verbal skills than boys, negative stereotyping by parents, especially dads, has shown time and time again to hurt the self-confidence of boys, boys may struggle with language arts because they are more likely to be dyslexic or have other language-related learning disabilities, the types of books that girls read differ from the books boys read, girls spend more time on homework and less time playing video games, which contributes to their higher reading scores and girls take school more seriously than boys and try harder in schoolwork and reading comprehension tests.

According to Achor, Musa, and Duguryil (2013), gender stereotypes seem to be a major impediment to achievement. Oludipe (2019), agreed that gender bias is very prevalent in Africa and particularly Nigeria. This present finding contradicts Oludipe (2019) argument that in Nigeria, harder tasks are assigned to males while females are given relatively easy and less demanding tasks. Similarly, Makama (2013) asserted that in the contemporary context, men and women classification is a world where patriarchal values predominate, it is a world where there are general sets of beliefs that women are inferior to men and therefore, the

power relations attached to their ideas, and beliefs, give men more power, more opportunities and more conscientious over and above women in the society. This finding tends to agree with those of Murtafi'ah and Putro (2020) also found that female students have higher attitudes in both academic and recreational reading than males. A similar pattern was also recorded by (Akdemir, 2019) who employed a mini AMTB to determine the students' willingness to learn and revealed that females have a more meaningful willingness to listen to L2. On the contrary, Ezechi and Anyanwu (2022) in her findings showed that there is a significant difference in the mean achievement score of male and female students. Male students achieved higher than their female counterparts in the Biology Achievement Test. Also, research conducted by Macri and Migali (2024) shows that male students perform better on high-stakes testing biology test. Similarly, Nsofor (2020) observed that male students had better achievement scores than their female counterparts in Biology.

### **Two-way Interactions Among Treatment and Gender on Senior Secondary School English Students' Achievement in Reading Comprehension.**

The findings of this study show that there is no significant interaction effect of treatment and Gender on senior secondary school English students' achievement in reading comprehension. The present study findings could be because of the nature of the problem-based learning and interactive invention learning strategies which emphasized students being in control of their learning. The improvement in achievement in reading comprehension as evident in using these two instructional strategies may not be unconnected with the hands-on activities provided by these strategies.

This finding agrees with the findings of Nsofor (2020) who observed no significant interaction effect of treatment and gender on Pre-service NCE III students' achievement and Aina and Akintunde (2013) observed in their

various studies that there is no significant difference between male and female performance. Also, Ukoh (2012) in her research on the effect of problem-based learning and interactive invention learning strategies on pre-service teachers' achievement in physics and acquisition of science process skills reveals there was no significant effect of treatment and gender on pre-service teachers' achievement in physics and acquisition of science process skills. On the contrary, Diana's (2014) study observed a significant interaction effect of treatment and gender on students' academic achievement. The findings of Filgona and Sababa (2017) also revealed a significant interaction effect of treatment and gender on students' achievement in Geography.

### **Conclusion**

Gender influenced the level of achievement in reading comprehension in favour of female students. The use of interactive strategies help to nullify the interaction effect of treatment and gender in reading comprehension

### **Recommendations**

The study's findings led to the following recommendations;

1. English teacher educators should be encouraged to adopt child-centered and gender sensitive instructional strategies such as problem-based learning and interactive invention strategies in teaching reading comprehension. The periodic use of such and other innovative strategies will promote high-level learning achievement in reading comprehension among male and female students..
2. English teachers(educators) should be encouraged to use appropriate learning programmes to facilitate hands-on practices to prove that reading comprehension is not difficult as many people think.

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