



INTERACTION EFFECTS OF GENDER, SCHOOL LOCATION AND SOCIO-ECONOMIC STATUS OF STUDENTS ON THEIR ACADEMIC ACHIEVEMENTS IN READING COMPREHENSION IN ENGLISH LANGUAGE

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Abstract

The aim of this study was to examine interaction effect of gender, school location and socio-economic status of students on their academic achievement in reading comprehension in English language. The study employed quasi-experimental design. The population of the study comprises all the students of public senior secondary schools in Ekiti State. The sample for the study was two hundred and seventy (270) senior secondary school two students (SSII) consisting of one hundred and thirty two (132) and one hundred and thirty eight (138) males and females respectively selected from nine senior secondary schools using multistage sampling, stratified, purposive and simple random sampling techniques from one hundred and eighty four public secondary schools in Ekiti State as at the time of this research. Four instruments were used for the study namely: Questionnaire on Students Socio-Economic Background ($r = 0.78$), Morphological Production Task on Students' Academic Ability ($r = 0.74$), Morphological Analysis Task of Students' Academic Ability ($r = 0.83$) and Achievement Test in Comprehension (0.75). Three hypotheses were formulated and tested at 0.05 level of significance. The selected schools were assigned into three major groups, with each group made up of three schools of 30 students per school (two experimental groups and one control group). Data collected were analysed using Analysis of Covariance, (ANCOVA). The results of the study showed that there were no interaction effects of gender, school location, and socio-economic status on students' academic achievement in the experimental and control groups in inferring word meaning and word formation in reading comprehension in English language. Based on the findings, it was recommended that government should improve social amenities and teaching facilities in the rural areas so that students in rural areas can perform well like their counterparts in the urban areas.

Keywords: Interaction, Gender, School Location, Socio-Economic Status, Academic Achievement and Reading Comprehension

Introduction

English language is one of the Germanic groups of languages that belong to the classical languages of the world. English is one of the core subjects in the secondary school curriculum. English language was introduced in Nigeria in the early 19th century by the British colonial administration and since then it has remained the language of education, government, business, commerce, mass media, and a vital link language between the various ethnic groups in the country and for external communication.

Reading is indispensable to a people in the promotion of their culture and civilization. Reading is very important in the development of human mind and experience. The importance of reading comprehension in education can be summed up in the words of Gbenedio (1996) that: Reading links one generation with the other; without it, no interchange of serious profession knowledge; knowledge is impossible; once our pupils cannot read, almost everything, if not everything, is lost; ...it is needed by every student to be able to read in order to acquire knowledge, pass



examinations and communicate with people within and outside their country; it is the royal road to knowledge, an essential tool to success in all academic subjects, and in modern life it is one's ability to successful learning; it enable one to keep pace with new developments and research; it is not only important for learning in schools it is equally important for work in industries, factories and general work places; it reduces industrial accidents in work places.., because basic rules for safety, signs and changes in regulations can be acquired through reading; it is a therapy against emotional tension and diseases...because it is a good entertainment especially in the use of one's leisure; it helps individuals to expand their horizon, experiences, and gain deeper understanding of themselves, other human beings and the world; and it also has international significance of promoting individual progress as well as national and international understanding of the world.

The importance of English language in the economic, political, social, religious and educational activities cannot be overemphasized owing to the diverse roles assigned to English language in Nigeria it therefore becomes expedient for any Nigerian that wants to be relevant to the social, economic and political environment to reach appreciable competence level in reading comprehension. In spite of the importance of English language in Nigeria, the performance of students over the years has not been encouraging. Media reports show that the performance of students in written, reading and spoken English has been on down ward trend. According to West African Examinations Council Examiners Report from *This Day Newspaper* (2017) it reports that in 2017, May/June examinations 59.22 percent obtained minimum of 5 credits in 5 subjects and above, including English and Mathematics adding that the percentage of candidates in this

category in the WASSCE for school candidates in 2015 and 2016 was 38.68 percent and 52.9 percent respectively. The above reports show that many of the students would not be able to gain admission to higher institution. No matter what course student offers, English is the mother of all the subjects without it, students ideas will remain locked in their head. It is therefore necessary to revive the appalling state of reading comprehension skills and to improve the skills of secondary school students.

The importance of gender in educational achievement of students cannot be sidelined. Arigbabu and Mji (2004) in Alordiah, Akpadaka and Oviogbodu (2015) stated that, in Nigeria, and perhaps the whole of Africa, gender bias is still very prevalent. The ultimate of all teachers should be to provide equal opportunities for every student (boy or girl) in the classroom (Ofodu and Lawal, 2010). Nevertheless, research evidences and experiences have shown that gender is a significant factor in determining the performance of students in learning tasks. Research findings have been inconclusive as to whether boys (males) achieve higher than girls (females). Jiboku (1991) reported that female subjects performed better that their male counterparts in reading Comprehension. To corroborate his finding he asserted that females have left cerebrum; that the sphere that deals with verbal skill and it is more developed, while males have the right cerebrum sphere that deals with mathematical reasoning and spatial relationship. Available literature showed in some cases that boys are superior to girls and vice-versa. Mura (1995) remarked that males and females have different ways of learning and that they achieve better when they are taught separately while Fennema (1996) asserted that in a co-educational classroom setting, boys receive more attention than girls. Lawal (1991) reported that gender has no significant effect in reading



comprehension performance of pupils in primary schools. This report was supported by Babalola (2010) that male and female students exposed to different instructional strategies did not vary in their performance in English language. However, Ofodu (2010) reported that female subjects performed better than their male subjects in reading comprehension. Available literature showed that in some cases boys were superior in reading comprehension to girls and vice-versa. For example, Ismali (2009) found out that there were gender differences in academic achievement of students enrolled in pre-service ELT (English Language Teaching) teacher training department. He reported that girls have more efficient meta-cognitive disposition than their male peers.

The issue of socio-economic status (SES) of parents has long been a topic of educational research amongst scholars. Mandeville and Kennedy (1993) discovered that regardless of the level of poverty in the life of the child, there were negative effects in terms of verbal achievement. In Nigeria, socio-economic background of a family is always linked with the academic achievement of students. According to Hart (2014) in Alordiah et al (2015) socio-economic status refers to the level of education, income, and professionalism of an individual or group. It was noted that students with a lower socio-economic status (SES) often face additional challenges including unavailability of learning resources, difficult learning conditions and poor motivation that negatively affect their academic performance. It is assumed that students from affluent homes are better exposed to learning facilities such as library, radio, television (Ogunleye, 2002). However, Oyinloye (2005) reported that socio-economic status of students exposed to reading materials had no significant effect on the achievement scores of students in essay writing. Nevertheless, the findings of scholars like Yolo

(1976), Onibu (1981) and Kopala (1999) all agreed that socio-economic status of the students provided an intellectual atmosphere which helps the students' performance in language learning at school. They concluded that the exposure of students to aids like books, radio and television can serve as very high reinforcement to language learning especially reading comprehension.

According to Oredein (2016) the school is a social learning agent that provides the environment upon which a child may be formally educated in order to attain educational goals. Human beings, have unlimited capacity to learn, but may however, be limited by the behaviour patterns and facilities that the immediate environment offers. This explained why Umoh (2006) posited that nature only provides the raw materials in form of potentials but it is the environment that determines the extent of development.

Howley (2003) reported that several studies found significant differences between students in rural and urban schools. It was also discovered that students living in rural areas in Nigeria has one greatest advantage such as the tendency for smaller classes, which promise increased student evaluation, and provide greater flexibility in teaching strategy. Scholars such as (Ogunleye 2002, Ofodu 2010, and Kolawole 2014) have further pointed out that good environment when provided by the parents and the school will go a long way to aid students learning. Bee (1985) stated that students' attitudes about school and their motivation to achieve as well as their actual achievements are strongly affected by the expectation and emotional climate of the school they attend. Patton, Kauffman and Blackburn (1991) stressed that a rich and stimulating language environment during the early childhood years and beyond is required to develop the verbal and intellectual skill essential for language learning.



Okafor (2007) in Alordiah et al (2015) argued that while poverty and students low SES background could be considered a concern regarding students' academic performance, but the strongly determined and motivated students are likely to beat the odds of greater risk of academic failure and perform with distinction in school.

Based on the contradictions in the findings of scholars the researcher investigated the interaction effect of gender, schools location, socio-economic status of parents on students' academic achievement in reading English language comprehension in Ekiti State, Nigeria.

Statement of the Problem

Researchers have identified gender, school location and socio-economic status of students' parents as some of the factors that determine the level of students' academic achievement. However, there have been inconsistencies in their findings. This therefore necessitated the researcher to find the interaction effect of gender, school location and socio-economic status of students' parents as some of the factors that determine the level of students' academic achievement inferring word meanings and word formation in reading comprehension in English language in Ekiti State, Nigeria.

Purpose of the Study

The purpose of this study was to investigate the interaction effect of gender, school location and meanings and word formation in reading comprehension among secondary school students in socio-economic status of students' parents on their academic achievement in inferring word Ekiti State.

Research Hypotheses

The following hypotheses were formulated for the study:

1. There is no significant interaction effect of gender, school location and socio-economic

status on achievement of students between experimental and control groups.

2. There is no significant interaction effect of gender, school location and socio-economic status on students' achievement in inferring word meanings between the experimental and control groups.

3. There is no significant interaction effect of gender, school location and socio-economic status on students' achievement in word formation between the experimental and control groups.

Methodology

This study made use of quasi-experimental research. It involved pre-test, post-test and control group design. The population for this study consisted of all the senior secondary school students in 184 public schools in Ekiti State, Nigeria as at the time of conducting the research. These schools spread across the 16 Local Government Areas of the State. The schools were located in both rural and urban areas of the State.

The sample for the study was 270 Senior Secondary class Two (SSII) students in Ekiti State consisting of 132 males and 138 females selected from nine senior secondary schools using multi-stage, stratified, purposive, and simple random sampling techniques due to the consideration of all the schools in the three Senatorial Districts of the State. Four instruments used for the study were validated with the assistance of experts in English Language Education and Tests and Measurement as follows: Questionnaire on Students Socio-Economic Background ($r = 0.78$), Morphological Production Task on Students' Academic Ability ($r = 0.74$), Morphological Analysis Task of Students' Academic Ability ($r = 0.83$) and Achievement Test in Comprehension (0.75). The data collected were analysed using Analysis of Covariance, (ANCOVA) while the hypotheses



generated were tested at 0.05 level of significance.

Hypothesis 1

There is no significant interaction effect of gender, school location and socio-economic status on achievement of students' between the experimental and control groups.

Table 1: 2 x 2 x 3 x 3 ANCOVA of Students' Achievement in Reading Comprehension by Gender, School Location, Socio-Economic Status and treatment.

Sources	SS	Df	MS	F-cal	P
Corrected model	15985.413	24	666.056	22.270*	0.000
Covariate (pretest)	3701.475	1	3701.475	123.758*	0.000
Sex	19.201	1	19.201	0.642	0.424
Location	135.727	1	135.727	4.538*	0.034
SES	96.318	2	48.159	1.610	0.202
Group	6488.269	2	3244.134	108.467*	0.000
Sex *Location	0.454	1	0.454	0.015	0.902
Sex * SES	17.438	2	8.719	0.292	0.747
Sex *Group	80.634	2	40.317	1.348	0.262
Location *SES	25.850	1	25.850	0.864	0.353
Location *Group	229.215	1	229.215	7.664*	0.006
SES * Group	21.861	2	10.930	0.365	0.694
Sex*Location* SES	10.688	1	10.688	0.357	0.551
Sex*Location* Group	64.746	1	64.746	2.165	0.142
Sex*SES* Group	21.096	2	10.548	0.353	0.703
Location*SES*Group	28.557	1	28.557	0.955	0.329
Sex*Location* SES* Group	5.502	1	5.502	0.184	0.668
Error	7327.683	245	29.909		
Corrected Total	23313.096	269			
Total	3298.82000	270			

p > 0.05

The result in table 1 showed that there was no significant interaction effect of gender, school location and socio-economic status on achievement of students in experimental and control groups ($F = 0.184$, $p > 0.05$). The null hypothesis was not rejected. There was no significant difference in the main effect of gender ($F = 0.642$, $p > 0.05$), Socio-economic status ($F=1.610$, $p > 0.05$) interaction effect of gender and location ($F= 0.015$, $p > 0.05$), gender and socio-economic status ($F= 0.292$, $p > 0.05$, gender and treatment ($F=1.348$, $p > 0.05$),

location and socio-economic status ($F = 0.864$, $p > 0.05$), socio-economic status and treatment ($F = 0.367$, $p > 0.05$), gender, location and socio-economic status ($F = 0.357$, $p > 0.05$), gender, location and treatment ($F = 2.165$, $p > 0.05$), gender, socio-economic status and treatment ($F=0.353$, $p > 0.05$), location, socio-economic status and treatment ($F=0.955$, $p > 0.05$).

In contrast, there was significant difference in reading comprehension in urban and rural areas ($F = 4.538$, $p <$



0.05), treatment ($F=108.467$, $p < 0.05$) and interaction effect of location and treatment ($F = 7.664$, $p < 0.05$) on students' achievement in reading comprehension was statistically significant at 95% confidence level in each.

Hypothesis 2

There is no significant interaction effect of gender, school location, and socio-economic status on students' achievement in inferring word meanings between the experimental and control groups.

Table 2: 2 x 2 x 3 x 3 ANCOVA of Students' Achievement in Inferring Word Meanings by Gender, School Location, Socio-Economic status and Treatment.

Sources	SS	Df	MS	F-cal	P
Corrected model	1381.201	24	57.550	15.501*	0.000
Covariate (pretest)	221.022	1	221.022	59.532*	0.000
Sex	0.169	1	0.169	0.045	0.831
Location	11.136	1	11.136	2.999	0.085
SES	25.918	2	12.959	3.491	0.032
Groups	604.396	2	302.198	81.397*	0.000
Sex *Location	2.890	1	2.890	0.778	0.378
Sex * SES	0.675	2	0.337	0.091	0.913
Sex *Group	9.906	2	4.953	1.334	0.265
Location *SES	0.221	1	0.221	0.060	0.807
Location *Group	3.506	1	3.506	0.944	0.332
SES * Group	1.587	2	0.794	0.214	0.808
Sex*Location* SES	1.188	1	1.188	0.320	0.572
Sex*Location* Group	6.659	1	6.659	1.794	0.182
Sex*SES* Group	7.738	2	3.869	1.042	0.354
Location*SES*Group	11.522	1	11.522	3.103	0.079
Sex*Location* SES* Group	0.516	1	0.516	0.139	0.710
Error	909.599	245	3.713		
Corrected Total	2290.800	269			
Total	57246.000	270			

$p > 0.05$

The null hypothesis was not rejected. ($F = 0.139$, $p > 0.05$). It implied that there was no significant interaction effect of gender, School location, and socio-economic status on students' achievement in inferring word meanings between the experimental and control groups. Similarly, the effect of gender ($F= 0.045$, $p > 0.05$), school location ($F = 0.299$, $p > 0.05$) interaction effect of gender and school location ($F = 0.778$, $p > 0.05$, gender and treatment ($F=1.334$, $p > 0.05$) School Location and socio-economic status ($F= 0.060$, $p > 0.05$), school location and treatment ($F = 0.944$, $p > 0.05$), Socio-economic and treatment ($F = 0.214$, $p > 0.05$), gender, school location and socio-

economic status ($F= 0.320$, $p > 0.05$), gender, location and treatment ($F=1.794$, $p > 0.05$), gender socio-economic and treatment ($F=1.042$, $p > 0.05$), location, socio-economic status and treatment ($F = 3.103$, $p > 0.05$). However, there was significant main effect of socio-economic status ($F=3.491$, $p < 0.05$), treatment ($F=81.397$, $p < 0.05$) on students' achievement in inferring word meaning in reading comprehension.

Hypothesis 3

There is no significant interaction effect of gender, school location, and socioeconomic status on students' achievement in word formation between the experimental and control groups.



Table 3: 2x2x3 x 3 ANCOVA of Students' Achievement in Word Formation by Gender, School Location, Socio-Economic Status and Treatment

Sources	SS	Df	MS	F-cal	P
Corrected model	9038.065	24	376.586	16.4460*	0.000
Covariate (pretest)	2296.453	1	2296.453	100.289*	0.000
Sex	9.324	1	9.324	0.407	0.524
Location	212.440	1	212.440	9.278*	0.003
SES	25.695	2	12.848	0.561	0.571
Group	3224.741	2	1612.371	70.414*	0.000
Sex *Location	0.329	1	0.329	0.014	0.905
Sex * SES	15.416	2	7.708	0.337	0.715
Sex *Group	38.878	2	19.439	0.849	0.429
Location *SES	24.363	1	24.363	1.064	0.303
Location *Group	241.748	1	241.748	10.557*	0.001
SES * Group	23.827	2	11.913	0.520	0.595
Sex*Location* SES	14.272	1	14.272	0.623	0.431
Sex*Location* Group	24.959	1	24.959	1.090	0.297
Sex*SES* Group	19.685	2	9.843	0.430	0.651
Location*SES*Group	1.714	1	1.714	0.075	0.785
Sex*Location* SES* Group	7.066	1	7.066	0.309	0.579
Error	5610.098	245	22.898		
Corrected Total	14648.163	269			
Total	116576.000	270			

$p > 0.05$

Table 3 showed that there was no significant interaction effect of gender, school location, socio-economic status on students achievement in word formation ($F=0.309$, $p > 0.05$). The null hypothesis was not rejected.

Similarly, the effect of gender ($F=0.407$, $p > 0.05$), socio-economic status ($F=0.561$, $p > 0.05$), interaction effect of gender and school location ($F=0.014$, $p > 0.05$) gender, and Socio-economic status ($F=0.337$, $p > 0.05$) gender and treatment ($F=0.849$, $p > 0.05$) location and socio-economic status ($F=1.064$, $p > 0.05$), socio-economic status and treatment ($F=0.520$, $p > 0.05$), gender, school location and socio-economic status ($F=0.623$, $p > 0.05$), gender, school location and treatment ($F=1.090$, $p > 0.05$), gender, socio-economic status and treatment ($F=0.430$, $p > 0.05$), school location,

socio-economic status and treatment ($F=0.075$, $p > 0.05$), on students' achievement in word formation was not statistically significant at 0.05 level in each case.

Therefore, there was a significant difference in the students' achievement in word formation ($F=9.278$, $p < 0.05$), treatment ($F=70.414$, $p < 0.05$) and interaction effect of location and treatment ($F=10.557$, $p < 0.05$) on students' achievement in word formation is significant at 95% level in each case.

Discussion

The study made effort in examining the interaction effects of gender, school location and socio-economic status on students' overall achievements of secondary school students in inferring word meanings and word formation in reading comprehension in English language. The results of the three hypotheses generated for the study



showed that there were no significant interaction effects of gender, school location, socio-economic status on achievement of students in experimental and control groups in inferring word meanings and in word formation on students reading comprehension. However, research conducted by Ofodu (2010) indicated that female students performed better than their male students in reading comprehension. Ofodu 2010, Ogunleye 2012, and Kolawole 2014 indicated that good environment aid students learning. Also, Ajila and Olutola (2000) reported in their studies that socio-economic status has a great influence on the students' psychological, emotional, social, educational and economic state.

Conclusion and Recommendations

The study was concerned with examining interaction effect of gender, school location and socio-economic status of parents on secondary school students' academic achievement in reading comprehension in English language in Ekiti State, Nigeria. It was found that there was no significant interaction effect of gender, school location and socio-economic status on achievement of students in the experimental and control groups. However, there was significant interaction effect of school location on students' achievement in reading comprehension.

Based on the findings, the researcher recommended that:

1. Government is advised to improve social amenities in rural areas of the State with a view to attracting most of the teachers to work in any part of the State.
2. Seminars/workshops should be organised for language teachers with a view to considering gender, school location as well as socio-economic status of parents during their teachings.

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