

**VOCABULARY AND REASONING ABILITIES AS CORRELATES OF
SECONDARY SCHOOL STUDENTS' ACHIEVEMENT IN YORUBA ESSAY
WRITING IN OSUN STATE, NIGERIA**

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Abstract

Despite the fact that writing skill is crucial for students' success in school and beyond, proficiency in writing skill has been challenging for most students to attain. The delimiting factors to the performance of the student has been a critical research concern. This study therefore examined vocabulary and reasoning abilities as correlates of secondary school students' achievement in Yoruba essay writing in Osun State, Nigeria. The study adopted ex-post facto design of survey research type. The target population for the study comprised public and private senior secondary school II students. Simple random sampling technique was used to select four hundred students from ten secondary schools. The three instruments used for data collection are: Vocabulary Ability Test ($r=0.82$), Reasoning Ability Test ($r=0.89$) and Yoruba Essay Writing Achievement Test ($r=0.87$). The study data was analyzed using the Pearson Product Moment correlation and Multiple regression analysis. Findings of the study revealed that the independent variables (vocabulary ability, reasoning ability), jointly predicted students' achievement in Yoruba essay writing ($F_{(2,297)} = 7.968$; $p < 0.05$). Furthermore, vocabulary ability contributed most with ($\beta = 0.158$; $t = 3.684$; $p < 0.05$) while reasoning ability did not contribute significantly to the model ($\beta = 0.025$; $t = 0.498$; $p > 0.05$). The study recommended that vocabulary and reasoning abilities of the students should be given attention to by the teachers and parents, through thought-provoking ideas and questions. Schools should also encourage their students to participate in essay writing competitions organized within and outside the school premises.

Key Words: Essay Writing, Achievement, Reasoning ability and Vocabulary ability

Introduction

Good writing skill is crucial for learners to be successful in schools. Writing skill is one of the four basic language skills in Yoruba language, while the others are: listening, speaking and reading skills. Listening and reading skills are termed receptive skills while speaking and writing are termed productive skills. Writing is a productive skill because it is expressive and it involves producing grammatical units rather than receiving them. The four basic language skills are interwoven and interdependent tools of effective communication. While the productive skills are germane in communication, one cannot overlook the importance of the receptive skills without which the former cannot be acquired. Writing, as a productive skill and basic language skill, involves thinking, creativity and logical combination of letters to form morphemes, words, phrases, clauses and sentences which are the basic grammatical units in Yoruba language.

Brookes & Grundy (1997) in Abiodun & Folaranmi (2007) define writing skills as a process in which the writer expresses his or her ideas or thoughts on a specific topic, then organizes them first into words, then into sentences and finally into paragraphs and essays. In other words, writing involves organizations of thoughts, structuring thoughts into systematic connection with related details, using opinions in a cohesive and coherent way that all the ideas are interwoven and link the main theme (Saima & Bukhari, 2016). Also, Fakeye & Ohia (2016) see writing as the act of transferring ideas, opinion and thoughts between persons, using recognised signs and symbols. This connotes that writing is the expression and organization of ideas in a meaningful way.

The importance of writing cannot be overemphasized as it is crucial to academic attainment, Arias in Ortiz & Hoyos (2015) argue that writing ability is the skill on which class activities are mainly based. While Sigmon (2016) asserts that writing is an essential life skill and could be useful across the curriculum, Rog (2007) maintains that students should learn to read so that they can learn about the world, but they should learn to write so that they can change the world. More so, Ezeokoli & Igubor (2016) opine that writing is an essential tool for personal and professional growth of humans. Chohan, (2011); Santangelo & Olinghouse, in Lanchaster (2013) note that children who do not learn the basic skills of effective writing, are at risk of significant barriers in education, employment, and other life pursuits. In 2003, the National Commission on writing in American's schools and colleges says that writing is not merely a way for students to show what they know; but also a means to help students understand what they know. This implies that writing is a productive skill which is very much needed by students while in school and in their future career development. Also, it is obvious here that writing is one of the best ways by which we learn. Writing is a productive skill that is needed by the students to express their thoughts, intuitions and inspirations.

Furthermore, Graham & Perin (2007) are of the view that writing has two important functions in school. Firstly, it is a skill that envelopes other skills and processes like handwriting and spelling; vocabulary; punctuation, capitalization, word usage, and grammar; and the use of strategies (such as planning, evaluating, and revising text). Secondly, writing is a means to extend and deepen students' knowledge; it acts as a tool for learning subject matter. It can then be deduced that while language is a powerful tool of communication, writing skill is a means of communication and the most essential skill out of the four basic language skills that learners need in the school and outside the school for learning and earning.

Central to writing as a basic language skill is essay writing, Fakeye & Igubor in Fakeye & Ohio (2016) comment that essay writing involves practices like gathering content materials, logically organizing the materials (paragraphing), employing the use of relevant expression with regards to the use of appropriate vocabulary, sentence construction and mechanics of punctuation, capitalization, spelling and grammar. Fakeye & Ohio (2016) believe that essay writing demands deliberate efforts and practice to put together, develop and analyse. This means that essay writing is a complex intellectual exercise that integrates other sub writing skills like: punctuation, capitalization, spelling and grammar.

In Nigeria, the West African Examinations Council (WAEC) and the National Examination Council (NECO) are responsible for examining students' proficiencies in Yoruba Language at the senior secondary school level. The aspects of Yoruba language paper are classified into the following areas: Essay Writing, Grammar and Sound System, Culture, Literature, Translation, Lexis and Structure (objective). In fact, the West African Examinations Council Regulation and Syllabuses, 2012; page 203 stipulates that "candidates' receptive and productive abilities will be tested in Yoruba Language examination". The productive abilities referred to here are "writing and speaking skills". The main objective of the Yoruba Language essay writing section is to test the candidates' ability to express themselves through writing in any of the forms, including; narrative, descriptive, argumentative/debate, exposition, letter, article, speech, report and creative writing. The continuous writing aspect of Yoruba language, which is the focus of this work, is graded by the examination bodies by using the following parameters: Content (10 marks), Organization (10 marks), Expression (20 marks) and Mechanical accuracy (10 marks) giving a total of 50 marks out of the 100 marks allotted to Yoruba Language paper one.

Content: The points or ideas used in writing the essay must be relevant to the topic, and the candidates might likely lose mark(s) if the content is not relevant to the topic.

Organization of facts: There should be orderly and logical presentation of materials through the use of good paragraphing, sentences in the paragraphs should not be too long and be discussed as a specific idea that will flow smoothly from one paragraph to another in a logical sequence.

Expression: This aspect includes correct expressions, language and grammar which involve correct/relevant words, expressions and idioms with appropriate language and expressions for the audience. In all, it has to do with correct and sophisticated use of punctuation marks with different varieties of sentences.

Mechanical Accuracy: Mechanical accuracy involves the use of correct tenses, correct spelling, correct punctuation mark, legible handwriting orthography, correct grammar and structure.

The implication of these rubrics is that without good writing skills in line with the marking guide and evidence from the chief examiners' report, a candidate's performance in paper I section of the Yoruba language is likely to be poor, which means that such a candidate's chances of passing the Yoruba Language examination is low.

Despite the importance of writing skill in secondary school curriculum, the teachers' effort to produce students who are proficient in writing skill seems to be difficult. It appears that the poor performance of students in Yoruba essay writing is not only due to inappropriate methods of teaching essay writing according to the chief examiners report, but the learners' poor vocabulary and reasoning abilities; hence, the need to assess vocabulary and reasoning abilities of Yoruba students in this study.

Students' vocabulary ability appears to influence students' academic achievement in Yoruba essay writing. Brown (2006) sees vocabulary as the knowledge of words and their meanings. This means that vocabulary ability is one's competency of knowledge of words and their meanings. According to Nation (2015), to communicate ideas effectively in writing, students need to use words appropriately. Then, it appears that children with greater vocabulary knowledge would have better outcomes in writing. Goya, Cail, & Fesher (2011) underline the basic distinction between breadth and depth of vocabulary knowledge, while the former, on the one hand, can be viewed as vocabulary size, that is, the number of words that the learner has fully or partially learnt their meanings; the latter, on the other hand, has to do with a learner's level of knowledge of the component parts of a given word, that is, how much knowledge the learner possesses about the word in question.

More so, Kolawole in Abijo (2009) stress that the students' problems in essay writing begin from their inability to express themselves. In the process of learning a second language, vocabulary is considered an important component; in writing, it can determine the whole essay length (Pikulski & Templeton in Joe (2010). In the formal school milieu, second language (L2) learners need to have a strong linguistic foundation, comprising a wide range of lexical skills (Flinspach, Scott, & Vevea, (2010). This demonstrates the relevance of vocabulary in L2 writing. Several studies indicate that poor vocabulary is one of the major issues in students' writing as perceived by language instructors; and also the L2 learners themselves associate the quality of their writing with the level of their vocabulary knowledge (Laufer & Nation in Iyere 2013 Hyland, 2003; Deng & Hu, 2007; Zhou, 2009). Although there are some studies which do not show a positive relationship between vocabulary and writing, a majority of the results support the fact that vocabulary knowledge is one of the important features to influence scores of essays (Pikulski & Templeton in Joe 2010).

According to Mofareh (2015), vocabulary ability is often viewed as a critical tool for second language learners because a limited vocabulary in a second language impedes successful communication. Karakoc & Kose (2017) are of the view that the relationship between vocabulary and writing is reciprocal, in the sense that on the one hand, vocabulary knowledge and size influences one's writing ability, and on the other hand, actual writing

improves one's vocabulary knowledge. Nation (2000) in Mofareh (2015) describes the relationship between vocabulary ability and language use as complementary in the sense that knowledge of vocabulary enables language use and, conversely, language use leads to an increase in vocabulary knowledge. Likewise, Zhou & Dai (1998) cited by Abijo (2009) are of the same view that knowledge of Yoruba vocabulary impacts on the learner's proficiency in the language. This vocabulary is the starting point for language learners' assimilation and use of a language. That is, the vocabulary size has a direct influence on the development of learners' listening, speaking, reading and writing skills.

Muodumogu & Unwaha (2013) examine students' achievement in essay writing through mini-lesson strategy, using vocabulary ability as the moderating variable. The study reveals that the difference in achievement between high ability and average ability groups was not significant, between high ability and low ability was significant and the difference between average ability and low ability was also significant. This agrees with the finding of Ezeokoli & Igubor, (2016) that the interaction effect of treatment and students' vocabulary knowledge on students' achievement in argumentative and expository essays is not significant. This means that the treatment and students' vocabulary knowledge do not influence students' achievement in argumentative and expository essays. Studies like that of Uzoegwu in Mahender (2007) show that ability level has no significant effect on the achievement of students in essay writing. Also, Liu (2003) who examines the effects of vocabulary size on college students' writing finds that though vocabulary size has no direct effects on the writing score, but it indirectly affects the writing score by influencing the length of writing. Liu (2003) conclude that large vocabulary size had positive effect on the length of writing, which in turn influenced writing quality. Contrarily, Karakoca & Kose (2017) find vocabulary knowledge to have impact on students' writing, such that students' with more vocabulary knowledge were more successful in the writing examinations.

Moreover, apart from vocabulary ability, other variables like students' reasoning ability appears to determine students' achievement in Yoruba essay writing. According to Mahender (2007), reasoning and learning are closely related; thus, there is an important synergy between good knowledge and good reasoning. Learning normally results from the process of reasoning. Reasoning ability can therefore be seen as a problem solving skills' or analytical ability' or 'deductive and inductive processing ability'. Research findings of previous studies suggest that in general, males and females appear to differ in reasoning abilities. Yenilmez, Sungur & Tekkaya (2006) in their research study of the effect of gender and grade level on students' reasoning abilities, report that boys had higher scores on proportional, probabilistic and combinatorial reasoning compared with the girls. The findings of Yenilmez et al, (2006) agree with earlier studies on gender difference in reasoning ability, such as Boujaude & Giuliano (2005), who report male students significantly scoring higher on test of logical thinking (TOLT) relative to female students. Also, Valanides in Penner & Paret (2008) who finds that 12th grade Cypriot male students had significantly better performance than their female counterparts on probabilistic reasoning items, even though the girls had significantly higher overall achievements. This suggests the gender difference in reasoning ability is not uniform across the various facets of reasoning. Further research has sought appropriate dichotomization of reasoning ability with respect to gender, and such research activities have yielded inconsistent result on the variable, and hence requiring further investigations. The concern for the present study is whether or not reasoning ability would be an indicator for writing achievement in Yoruba language essay writings, considering that the language is native to the students.

Several measures have been taken to improve students' academic achievement in Yoruba language essay writing; despite that, the desired level of achievement has not been achieved. It has been observed that students' performance in external examinations continues

to be discouraging, according to West African Examination Council (WAEC). Despite the fact that many research works have been conducted using various variables, such as class size, school environment, teacher competence and experience and so on, with a view to improving students' performance in Yoruba essay writing, the students' poor performance still persists. Studies have also been carried out on the effects of vocabulary size on college students' writing experimentally. However, there appears to be dearth of studies which holistically examined vocabulary and reasoning abilities as correlates of secondary school students' achievement in Yoruba essay writing. The present study therefore sought to empirically investigate vocabulary and reasoning abilities as correlates of secondary school students' achievement in Yoruba essay writing in Osun State, Nigeria.

Research Hypothesis

H₀₁: There is no significant relationship among vocabulary, reasoning ability and students' achievement on Yoruba essay writing

H₀₂: There is no significant joint contribution of vocabulary ability and reasoning ability on students' achievement in Yoruba essay writing

H₀₃: There is no significant relative contribution of vocabulary ability and reasoning ability on students' achievement in Yoruba essay writing

Methods

The study adopted an ex-post facto design of survey research type. The target population for the study comprised of all the senior secondary school year two Yoruba Language students (SS2) in Osun state. The schools were stratified into private and public. Simple random sampling technique was used to select ten secondary schools (five from private and five from public) in two local government areas of Osun State. Purposive sampling technique was used to select an arm of SS2 class in each of the schools based on the class that offered Yoruba as a subject. The choice of SS2 students is because it is assumed that they would have covered more essay topics in the senior secondary school curriculum. In all, a total number of 400 Yoruba Language students took part in the study. Three instruments namely: Vocabulary Ability Test $r = 0.82$, Reasoning Ability Test $r = 0.89$ and Yoruba Essay Writing Achievement Test $r = 0.87$ were used to collect data for the study. The data generated were analyzed using correlation and multiple regression analysis.

Results

H₀₁: There is no significant relationship among vocabulary ability, reasoning ability and students' achievement on Yoruba essay writing

Table 1: Correlation Matrix Showing the Relationship between Independent Variables and Students' Achievement in Yoruba essay writing

Variables	Achievement	Vocabulary ability	Reasoning ability
Achievement	1		
Voc_Ability	0.195*	1	
	0.000		
Reas_Ability	0.076	0.267*	1
	0.065	0.000	

* denotes significant at $p < 0.05$

Table 1 shows a weak positive and significant relationship between vocabulary ability ($r = 0.195$; $p < 0.05$) and students' achievement in Yoruba essay writing. This indicated that students' vocabulary ability is related to students' achievement in Yoruba essay writing. Also, there is a weak positive and non-significant relationship between reasoning ability ($r = 0.167$; $p > 0.05$) and students' achievement in Yoruba essay writing. This implies that reasoning ability is not significantly related to students' achievement in Yoruba essay

writing. The table also reveals a low positive significant relationship between vocabulary ability ($r = 0.267$; $p < 0.05$) and reasoning ability. These results imply that as students' vocabulary ability improves, their reasoning ability is influenced, and also their achievement in Yoruba essay writing is enhanced.

H₀₂: There is no significant composite contribution of vocabulary ability and reasoning ability on students' achievement in Yoruba essay writing

Table 2: Regression Summary and ANOVA of Students' vocabulary ability and reasoning ability and Achievement in Yoruba essay writing

Sources of Variance	Sum of Squares	Df	Mean Square	F	Significant
Regression	10157.176	2	5078.588	7.968	0.000*
Residual	253036.102	397	637.371		
Total	263193.277	399			

R = 0.196
R Square = 0.039
Adjusted R Square = 0.034
Std. Error of the Estimate = 25.24620

Table 2 shows that the combined contribution of students' vocabulary ability and reasoning ability to the prediction of students' achievement in Yoruba essay writing was significant ($F_{(2,297)} = 7.968$; $p < 0.05$). This implies that when vocabulary ability and reasoning ability were taken together, they jointly predicted students' achievement in Yoruba essay writing. The table, in addition shows a multiple regression coefficient ($R = 0.196$) and a multiple regression adjusted ($R^2 = 0.039$). This means that 3.9% of the variation in students' achievement in Yoruba essay writing was accounted for by the composite contribution of the independent variables, while the remaining 96.1% is due to other factors and residuals not in this model.

H₀₃: There is no significant relative contribution of vocabulary ability and reasoning ability on students' achievement in Yoruba essay writing?

Table 3: Relative Contribution of Independent variables on Students' Achievement in Yoruba essay writing

Model	Unstandardized Coefficients	Standardized Coefficient		Rank	T	Sig.
	Beta	Std. Error	Beta (β)			
(Constant)	181.384	6.070			29.882	.000
Voc_Ability	.580	.158	.188	1st	3.684	.000
Reas_Ability	.075	.151	.025	2nd	.498	.619

Table 3 reveals that the relative contribution of vocabulary ability to students' achievement in Yoruba essay writing ($\beta = 0.188$; $t = 3.684$; $p < 0.05$) was significant. Also, the relative contribution of reasoning ability to students' achievement in Yoruba essay writing ($\beta = 0.025$; $t = 0.498$; $p > 0.05$) to students' achievement in Yoruba essay writing was not significant. The implication of these results is that students' vocabulary ability has a direct contribution to the model explaining variance in students' achievement in Yoruba essay

writing, while students' reasoning ability only has to work through vocabulary ability to contribute to variance in their Yoruba essay writing.

Discussion of Findings

Findings of the study revealed that students' vocabulary ability and writing ability is reciprocal, for vocabulary knowledge of students have an impact on their writing ability and also students' writing improves students' vocabulary knowledge. It is clear from the result findings that students' vocabulary abilities actually set a limit to what students can do as far as essay writing in Yoruba language is concerned .By implication, no longer should the teacher of Yoruba Language handle the teaching of the various vocabulary ability in Yoruba with levity hands, but try to improve on students' vocabulary ability to enhance their performance in the essay writing component of the subject. This finding is in line with Karakoc &Kose (2017) who observe that the relationship between vocabulary and writing is reciprocal, in the sense that vocabulary knowledge and size have an impact on writing, whereas writing helps to improve vocabulary knowledge. The finding is also in line with Zhou & Dai (2016) cited by Abijo (2009) who assert that the vocabulary size of language learners directly affects the development of their writing skills. Contrarily, the finding of this study negates Nation (2006) who examines the effects of vocabulary size on college students' writing and finds that though vocabulary size has no direct effects on the writing score, but it indirectly affects the writing score by influencing the length of writing. This finding will be logically explainable since the skills required for composition, as in essays, will rely on the size of the vocabulary students possess to achieve effective communication. Students will therefore, be able to express themselves in Yoruba essay writhing depending on their vocabulary abilities. The study also finds that the relationship between students' reasoning ability and their achievements in Yoruba essay writing was not significant, and that students' reasoning ability did not significantly predict their achievements in Yoruba essay writing. This finding negates those of Bhat, (2016) who reports that reasoning ability seemed to be the main predictor of academic achievement. Mahender (2007) who states that reasoning and learning are closely related, thus there is an important synergy between good knowledge and good reasoning. Learning normally results from the process of reasoning. This result however may be explained by Sachs' (2004) conception of a major component of reasoning skill; that is critical thinking, being both a process of doing critical thinking and a product communicating the results of critical thinking. Therefore critical thinking, and consequently reasoning ability becomes linked to writing ability through communicative skills, which manifested in vocabulary ability in this study (as demonstrated by the significant relationship between reasoning ability and vocabulary ability). Reasoning ability will therefore, rely on vocabulary ability to achieve good and expressive essays in Yoruba language.

Conclusion and Recommendations

In view of the findings of this study, it is clear that students' reasoning and vocabulary abilities actually sets a limit to what they can do as far as essay writing in Yoruba is concerned. By implication, no longer should the teachers of Yoruba handle the teaching of the various vocabulary ability in Yoruba with levity. Students need more instruction so as to improve their vocabulary ability level, and thus, enhancing their performance in essay writing in Yoruba. The following recommendations are made:

1. Stakeholders, like teachers should see vocabulary and reasoning abilities as necessary in order to inform targeted instruction and interventions that address the need of learners in Yoruba essay writing.
2. Government should employ more Yoruba Language teachers to reduce the burden of one teacher to 60 students which is a common scenario among public senior secondary

schools in most states in Nigeria. This will help the teacher to have enough time to groom the students on vocabulary ability that is essential for writing good essay.

3. Government, NGOs and other relevant stakeholders should provide and supply current textbooks that are rich in content and capable of developing students' reasoning and vocabulary abilities.
4. Schools should also endeavor and see it as their personal responsibility by ensuring that students attend essay writing competitions organised within and outside the school premises.

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