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Influence of Spelling Competency on Students' Achievement in Vocabulary Acquisition

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Abstract

This study was carried out to find out the influence of spelling competency on Upper Basic II students' achievement in English vocabulary acquisition. one research question and one null-hypothesis guided the study. The ex post facto research design involving pre-test and post-test, was adopted for the study. A total of 197 Upper Basic II students in Anyigba Education Zone of Kogi State were drawn from four schools using the disproportionate stratified sampling technique. In each of the four sampled schools, one intact class was used for the study. Two instruments were used for data collection in this study. These are English Vocabulary Spelling Competency Test (EVSCT) and English Vocabulary Acquisition Achievement Test (EVAAT). EVSCT is a fifty-item multiple choice spelling competency test. This was used for pre-test. EVAPT is also a fifty-item multiple choice vocabulary test which subjects were required to choose one correct option out of four. This was used for post-test. The instruments were subjected to face-validation after which they were adjudged good and therefore used for data collection. Reliability of the instruments were ensured through trial testing using the Kudar-Richardson's formula 20 (K – R 20). The reliability co-efficient based on K – R 20 estimates were 0.87 and 0.75 respectively. *Mean and standard deviation and Pearson's Product Moment Correlation were used to analyze the research questions while the hypotheses were tested* using *multiple regression analysis at 0.05 level of significance. The findings of the study revealed positive correlation between spelling competency and students' achievement in vocabulary acquisition. Based on these finding, recommended that English Studies teachers should place greater emphasis on systematic spelling instruction as a foundation for vocabulary development.*

Key words: Spelling competency, Vocabulary acquisition, students' achievement, English

Introduction

Vocabulary acquisition is a cornerstone of language learning, serving as a foundation for listening, speaking, reading and writing skills. Mastery of spelling plays a crucial role in understanding, memorizing, and effectively using new words. However, the relationship

between spelling competency and vocabulary acquisition is often overlooked, especially in contexts where English is taught as a second language.

In any language, especially second language context, the most important aspect that needs to be acquired and empowered is vocabulary. Vermeer (2022) stated that "knowing words is the key to understanding and being understood" (p.147). This indicates that adequate vocabulary is required for effective language use. As for English, Hazenberg and Hulstijn (2016), suggested that in order to comprehend a variety of text in a language, learners must have vocabulary knowledge of 10000-to-11000-word families, implying that those with limited vocabulary knowledge may not be able to comprehend the contents of the reading materials in that language. This may impair their learning and affect their academic progress. As English is the second language in Nigeria, students often face problems in their studies because they do not have adequate vocabulary in the language.

Studies have consistently shown that a large proportion of students in Nigeria do not have sufficient vocabulary knowledge in English to cope with reading texts, which, in turn, could negatively affect their academic performance (Bava-Harji, et al., 2015; Ibrahim, et al., 2016; Abdul-Aziz, 2021). In Nigeria, secondary school students often face problems in understanding technical terminology and specialize concepts in English. Understanding these terminologies and concepts is very important as failure to do so may result in failure in registers and related fields. Thus, it is important for students to enhance their vocabulary level in order to help them cope, not only in their studies, but also for future undertakings in the world of work.

Research on English vocabulary knowledge and vocabulary learning strategies have been quite replete (Hazenberg & Hulstijn, 2016; Laufer, 2017; Nguyen and Nation, 2018, Wong, et al., 2019). However, these studies mostly focused on vocabulary level, the strategies used in enhancing vocabulary acquisition, and its relationship with skills performance in the language like writing, speaking and listening in English. Focuses on vocabulary spelling competency

and its relationship with students' performance in vocabulary acquisition has been scarcely tapped. Thus, the present study aimed at investigating the influence of vocabulary spelling competency on students' achievement in vocabulary acquisition.

Spelling is central to literacy acquisition since it cements written language in memory, thus unburdening cognitive resources that are freed to focus on the message (Grünke and Skirde, 2022; Kahn-Horwitz, 2020). When young learners of English as a second language begin their literacy journey, learning to spell adds an essential layer to word knowledge (Nation, 2012). Word knowledge has a positive impact on reading and writing (Laufer & Ravenhorst-Kalovski, 2020) and is an essential foundation for developing readers (Kim, 2017). Acquiring spelling competence, an integral component of word knowledge, is more complex than learning to read since it involves retrieving accurate word renditions from memory (Ehri, 2020; Mather & Jaffe, 2021).

Spelling is important for literacy acquisition since learning about the alphabetic system and the orthographic form of words contributes to word pronunciation and meaning in memory and assists with word retrieval (Perfetti & Hart, 2021). Emergent readers benefit from explicit teaching on their path toward literacy (Galuschka et al., 2020; O'Leary & Ehri, 2020), especially for ESL learners who do not have a strong English background (Kahn-Horwitz, 2020). For young English learners, spelling involves making phoneme-grapheme and grapheme-phoneme connections and learning about graphotactic patterns of the written script (Treiman, 2018). Spelling in a first language (L1) environment occurs after young learners have had many years of oral exposure to the language. Consequently, these L1 learners benefit from their familiarity with the language, supporting their literacy journey (Singh et al., 2021). ESL spelling acquisition does not provide this familiar language context and thus creates challenges. These challenges include ESL learners contending with matching phonemes to graphemes and graphemes to phonemes that are unfamiliar to them in an English script (Sammour-Shehadeh et al., 2022). Treiman and Kessler (2022) demonstrated that

statistical learning of orthographic and graphotactic patterns of English in an L2 environment is insufficient for young learners to acquire spelling. Instead, young learners need explicit teaching of these rules and patterns to boost their acquisition.

The English language has a deep orthography, making learning to spell one of the more challenging aspects of becoming literate in this tongue (Katz & Frost, 2022; Moats, 2014; Pacton & Fayol, 2014). The regularity in the closed syllable words, usually the first words taught in a beginner phonics programme, needs to be exploited (Fowler & Shankweiler, 2014). This regularity could speed up processes in memory, thus leading to automaticity, increasing the speed of spelling, and reading, and ultimately enhancing reading comprehension (Graham & Santangelo, 2014). In an L2 environment, young students reading English must contend with the variety of differences in English compared to their native language.

Learning about the literacy components of a word, such as orthographic conventions and morphemes that comprise words, may assist learners in understanding, pronouncing, reading, and spelling words, which are the building blocks of the language (Vaisman & Kahn-Horwitz, 2020). In addition, ESL teachers who instruct students at all levels acknowledge the importance of teaching spelling and are eager to learn more to assist their learners in becoming literate (Saban & Kahn-Horwitz, 2022). The spelling system has a core importance within a language because it has the character of normalizer and tongue fixative; it is an essential instrument of cohesion and unity of English. In addition, it allows establishing a historical sequence in the formation of a language. On the social and personal levels, mastery of spelling conventions facilitates the effective communication of messages by eliminating semantic, lexical and syntactic ambiguities; good spelling improves comprehension among readers and writers. Due to the above, spelling proficiency is a highly appreciated skill in communication; a low level of spelling implies a low level of training and culture of an individual, and as such, it is an indicator that is associated with the assessment of their academic, professional and work life. Thus, spelling activities need to be part of regular ESL

classroom practice, hence the need to study the influence of spelling competency on students' performance in vocabulary acquisition. The purpose of this study therefore, is to examine the relationship between the achievement mean scores of Upper Basic II students in spelling competency viz-a-vis their vocabulary acquisition knowledge. One research question and one null-hypothesis guided the study. These are:

Research Question

What is the relationship between the acievement mean scores of Upper Basic II students in spelling competency and their vocabulary acquisition?

Hypothesis

There is no significant relationship between the achievement mean scores of Upper Basic II students in spelling competency and their vocabulary acquisition.

Methods

The ex post facto research design involving pre-test and post-test, was adopted for this study. The population of the study was all the upper Basic II students in Anyigba Education Zone of Kogi State in the 2024/2025 academic session. A total of 197 students were drawn from four schools using the disproportionate stratified sampling technique. In each of the four sampled schools, one intact class was used for the study. One research question and one null-hypothesis guided the study. Two instruments were used for data collection. These are English Vocabulary Spelling Competency Test (EVSCT) and English Vocabulary Acquisition Achievement Test (EVAAT). EVSCT is a fifty-item multiple choice spelling competency test which was used for pre-test. EVAPT also contains a fifty-item multiple choice vocabulary test which subjects were required to choose one correct option out of four. This was used for post-test. The instruments were subjected to face-validation after which they were adjudged good and therefore used for data collection. Reliability of the instruments were ensured through trial testing using the Kudar-Richardson's formula 20 (K – R 20). The reliability co-efficient based on K – R 20 estimates were 0.87 and 0.75 respectively. Mean and standard deviation

and Pearson's Product Moment Correlation were used to analyze the research questions while the hypotheses were tested using multiple regression analysis at 0.05 level of significance.

Results

Research Question

What is the relationship between the performance mean score of Upper Basic II students in spelling competency and vocabulary acquisition?

Table 1: Pearson's Product Moment Correlation Analysis of Students' Performance in Spelling Competency and Vocabulary Acquisition

Variable	$\bar{x}$	SD	N	r
Spelling Competency	65.28	3.548	197	0.84
Vocab. Acquisition	96.79	4.134		

r = Pearson's Product Moment Correlation

The result of the study as presented in Table 1 shows that the correlation coefficient of students' achievement in spelling competency and vocabulary acquisition was 0.84. This means there was a high and positive relationship between the achievement of students in spelling competency and vocabulary acquisition. This implies that spelling competency has positive relationship on Upper Basic II students' performance in vocabulary acquisition.

Hypothesis

There is no significant relationship between the performance mean score of students in spelling competency and vocabulary acquisition

Table 2: Standardized Regression Summary of Students' Performance in Spelling Competency and Vocabulary Acquisition

Model 1 (constant)	R^2	Beta (β)	$R^2\Delta$	P
SC	0.706	.185	0.005	0.003

α = 0.05, S = Significant, R^2= Coefficient of Determination, β = Beta Coefficient, Δ= change, P= probability value

The result on Table 2 shows the regression analysis of the relationship between spelling competency and upper basic II students' achievement in vocabulary acquisition. The result showed a positive Beta (β) correlation of 0.185 and probability value of 0.003. This exact

probability value of 0.003 is less than 0.05 level of significance set as bench mark for testing the hypothesis and the result was found to be significant. The null hypothesis which stated that there is no significant relationship between spelling competency and upper basic II students' achievement in vocabulary acquisition was therefore rejected and the inference drawn was that, spelling competency significantly correlate with Upper Basic II students' achievement in vocabulary acquisition. A positive Beta coefficient of 0.185 means that an increase in the predictor variable is associated with an increase in the dependent variable, this implies that, a unit change in spelling competency led to a change in Upper Basic II students' achievement in vocabulary acquisition.

Discussion of Findings

The aim of this study was to examine the extent in which spelling competency could influence vocabulary acquisition. The study found a strong relationship between spelling competency and vocabulary acquisition. It can be asserted that spelling competency and vocabulary acquisition are separate but related. What this means is that the more competent a student is in spelling the more vocabulary knowledge such a student would have. This finding is in line with Gonzalez-Fernandez and Schmitt's (2017) claim that breadth and depth of vocabulary knowledge do not grow in a parallel fashion without the knowledge of spelling; the two are related and contribute to one another. This finding is also consistent with the wealth of evidence that has highlighted the close relationships between both vocabulary knowledge and spelling competency (Johnston, et al, 2014; Kent et al., 2014; Lee & Al-Otaiba, 2015).

The relationship between spelling competency and vocabulary acquisition is quite close and mutually reinforcing. The relatively high correlation obtained between spelling competency and vocabulary acquisition in this study could be due to the fact that spelling competency supports vocabulary acquisition. When a person can spell words accurately, they tend to have a better

understanding of how words are constructed (prefixes, suffixes, roots, etc.). This awareness helps them decode unfamiliar words, infer meanings, and retain new vocabulary more easily. Vocabulary acquisition strengthens spelling skills. As people learn new words and their meanings, they become more familiar with the patterns and structures of language. Knowing a word well — including its pronunciation, usage, and origin — makes it easier to remember how to spell it correctly. Both spelling and vocabulary growth rely on phonological awareness (hearing and manipulating sounds), orthographic knowledge (understanding writing conventions), and morphological awareness (understanding word parts like roots and affixes). The more often learners encounter words — through reading, writing, and speaking — the more they internalize correct spelling and nuanced meanings, reinforcing both spelling and vocabulary at the same time. In short, better spelling could lead to richer vocabulary, and a richer vocabulary could lead to better spelling (Gonzalez-Fernandez & Schmitt, 2017).

Conclusion

This study was carried out to investigate the influence of spelling competency on the achievement of Upper Basic II students in English vocabulary acquisition. The findings of the study reveal a positive correlation between spelling competency and students' achievement in vocabulary acquisition, highlighting the critical role that spelling skills play in enhancing vocabulary development. This result suggests that strengthening spelling instruction could be an effective strategy for improving vocabulary acquisition among diverse groups of students.

Recommendations

Based on the findings of this study the following recommendations were made:

1. English Studies teachers should place greater emphasis on systematic spelling instruction as a foundation for vocabulary development. Integrating spelling exercises into daily lessons can significantly improve students' vocabulary acquisition.

2. Educational authorities and curriculum planners should design and implement structured programmes that simultaneously target spelling competency and vocabulary growth, ensuring that students at all levels are systematically supported.

3. Regular workshops and professional development programmes should be organized for teachers to equip them with innovative strategies for teaching spelling and vocabulary.

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