



ENHANCING VOCABULARY AND SENTENCE CONSTRUCTION THROUGH SELECTED LEARNING MATERIALS: A QUASI-EXPERIMENTAL STUDY

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Abstract:

Mastering vocabulary is vital for language proficiency and has a positive impact on both spoken and written communication skills. This study investigates the effectiveness of using selected reading materials in enhancing vocabulary and sentence construction among undergraduate students. The participants of the study consisted of 20 undergraduate students. A quasi-experimental design was employed where the participants underwent a pretest-post-test intervention. The intervention included reading and analysing 8 different reading materials from 4 different genres. The findings indicated a significant increase in vocabulary knowledge ($M = 52.30$ to $M = 68.70$) and sentence construction ($M = 45.10$ to 65.40) at post intervention, with large effect sizes (Cohen's $d = 1.17$ for vocabulary, 1.02 for sentence construction) Besides, this there was a strong correlation ($r = .64$) between vocabulary gain and improved writing. Findings revealed a significant role of context-based learning materials in improving language competence.

Keywords: vocabulary acquisition, sentence construction, quasi-experimental design, instructional materials, language proficiency

1. Introduction

Vocabulary development forms the cornerstone of language acquisition. It supports learners in interpreting text and expressing ideas clearly and effectively in both speech and writing. According to Graves (2006), vocabulary knowledge aids in understanding written and spoken language by enabling learners to recognize nuances and deeper meanings. Similarly, Nation (2001) emphasized that vocabulary is the building block of language, allowing for effective communication of thoughts and emotions. Without a solid vocabulary base, learners struggle to comprehend texts or express themselves

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accurately. Reading plays a central role in vocabulary acquisition. It offers learners repeated exposure to words in varying contexts, encouraging natural and incidental learning. Unlike rote memorisation, reading-based vocabulary learning is embedded in meaningful discourse, which enhances comprehension and word retention. However, reading materials from a single genre would limit the breadth of vocabulary and exposure to a variety of sentence structures. These hinder language development; thus, exposure to diverse genres is vital for expanding vocabulary and improving a wide range of grammatical constructions. In line with this, teachers can select different reading materials from different sources and introduce them in their reading lessons. They should not limit reading material to the assigned textbooks but take the initiative to introduce reading materials from sources beyond the classroom.

Since learning vocabulary is closely related to sentence construction, it's important, vocabulary is taught in context. Vocabulary is best learned through contextual exposure rather than isolated instruction. Nation (2001) asserted that context helps learners infer meanings, understand usage, and retain vocabulary more effectively. Nagy, Herman, and Anderson (1985) introduced the Incidental Vocabulary Learning Hypothesis, which posits that learners acquire a significant portion of their vocabulary from context during reading activities rather than direct teaching. Krashen's Input Hypothesis (1989) supports this view, emphasizing that comprehensible input promotes natural language acquisition, including vocabulary. Cunningham and Stanovich (1998) also found that regular reading, especially extensive reading, significantly boosts vocabulary growth. Recent studies (e.g., Zhang & Yang, 2023) reinforce that reading depth correlates positively with vocabulary size and depth. These findings collectively point to the importance of integrating reading-based materials and context-driven instruction to foster vocabulary and overall language proficiency.

2. Literature Review

Students who read frequently tend to acquire vocabulary more efficiently than those who rely solely on classroom instruction. Research supports a robust relationship between vocabulary knowledge and reading comprehension (Wright & Cervetti, 2017; Ouellette, 2006). Quinn et al. (2015) noted that early reading skills are strong predictors of long-term vocabulary development. Besides, vocabulary depth, particularly receptive lexical knowledge, is more strongly associated with reading comprehension than productive vocabulary (Townshend & Petersen, 2020). Moreover, Zhang and Yang's (2023) meta-analysis confirmed that both L2 vocabulary knowledge and reading proficiency are interdependent and mutually reinforcing.

An experimental study by Feng et al. (2020) confirms that reading reliably produced better incidental vocabulary learning and retention compared to listening or viewing alone. This study shows that reading is very helpful for retention and should be part of multimodal vocabulary instruction. In another study by Matsuoka & Hirsh (2010), it was shown that using coursebook texts includes potentially learnable words, but to

encourage long-term learning, teachers should expose students to intentionally designed coursework reading tasks and follow-up activities.

2.1 Objectives

Studies have shown that reading is responsible for vocabulary learning; however, exposure to different reading material can enrich students' vocabulary and contribute to better sentence construction. Therefore, this study aimed to assess the impact of selected reading-based instructional materials on vocabulary acquisition and sentence construction skills.

3. Methodology

A quasi-experimental one-group pretest-post-test design was used. Twenty undergraduate students participated in this study. Two primary instruments were used: a vocabulary test and a sentence construction task. An intervention was carried out for 4 weeks. Each week, the participants were exposed to different reading materials. The reading materials were from four different genres: short stories, literary texts, popular science articles, and authentic news reports. The researcher went through the reading material and discussed with them the vocabulary and sentence structures. The meaning of difficult words from these texts was identified, and their meaning were discussed. Then, sentences from these texts were also drawn out, and the sentence patterns were grammatically studied. Discuss how these sentences are formed. After the intervention, a post-test was administered.

4. Findings and Discussion

Table 1: Pre-test and Post-test Scores for Vocabulary and Sentence Construction

Skill	Test	M	SD	Improvement
Vocabulary	Pre-test	52.30	8.60	–
	Post-test	68.70	7.90	+16.4 (31.3%)
Sentence Construction	Pre-test	45.10	10.20	–
	Post-test	61.40	9.50	+16.3 (36.2%)

Note: M = Mean; SD = Standard Deviation.

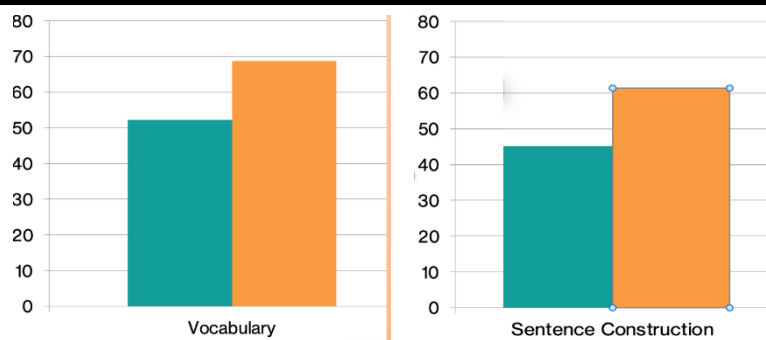


Figure 1: Please add a name

The data indicate a notable improvement in both vocabulary and sentence construction scores from the pre-test to the post-test. For vocabulary, the mean score increased from 52.30 (SD = 8.60) to 68.70 (SD = 7.90), reflecting an improvement of 16.4 points, which amounts to approximately 31.3%. This suggests that learners demonstrated substantial gains in their vocabulary knowledge over the course of the intervention or learning period. Similarly, sentence construction scores also improved significantly, with the mean rising from 45.10 (SD = 10.20) in the pre-test to 61.40 (SD = 9.50) in the post-test. This represents a gain of 16.3 points, equivalent to about 36.2% improvement. The results highlight that learners not only enhanced their vocabulary but also applied this knowledge effectively in constructing sentences, indicating positive progress in both linguistic knowledge and practical language use. Overall, the findings provide strong evidence of the effectiveness of the instructional approach in developing both vocabulary acquisition and sentence construction skills.

Table 2: Paired-Sample t-test Results for Vocabulary and Sentence Construction

Skill	<i>t</i> (df)	<i>p</i>	Cohen's <i>d</i>	Interpretation
Vocabulary	5.21 (19)	< .001	1.17	Statistically significant, large effect
Sentence Construction	4.57 (19)	< .001	1.02	Statistically significant, large effect

Note: $p < .001$ indicates highly significant improvements. Cohen's d values above 0.80 represent large effect sizes.

The paired-sample t-test results show that the intervention had a strong and statistically significant impact on both vocabulary and sentence construction skills. For vocabulary, the test yielded $t(19) = 5.21$, $p < .001$, with a Cohen's d of 1.17, indicating a large effect size. This suggests that the improvement in vocabulary scores from pre-test to post-test was not only statistically significant but also practically meaningful, reflecting a substantial learning gain. Similarly, sentence construction showed significant improvement, $t(19) = 4.57$, $p < .001$, with a Cohen's d of 1.02, also representing a large effect size. These results confirm that learners made consistent and notable progress across both areas, and the large effect sizes highlight that the intervention was highly effective in enhancing both vocabulary acquisition and the ability to construct sentences. Overall, the findings provide strong empirical support for the effectiveness of the instructional approach.

Table 3: Correlation between Vocabulary and Sentence Construction Scores

Variables	1	2
1. Vocabulary	—	.64**
2. Sentence Construction	.64**	—

Note: $r = .64$, $p = .002$. $p < .01$ (two-tailed). The correlation indicates a moderate to strong positive relationship: better vocabulary knowledge is associated with better sentence construction ability.

The results of the Pearson correlation analysis indicate a significant positive relationship between vocabulary and sentence construction scores, $r = .64$, $p = .002$. This correlation reflects a moderate to strong positive association, suggesting that learners with higher vocabulary knowledge also tend to perform better in constructing sentences. In practical terms, the finding implies that vocabulary growth contributes meaningfully to sentence-making ability, reinforcing the interdependence between lexical knowledge and syntactic skills. The statistically significant p-value further confirms that this relationship is unlikely to be due to chance, highlighting the importance of vocabulary development as a foundation for improving broader language proficiency, particularly in sentence construction.

5. Conclusion

The findings of this study provide strong evidence that the use of carefully selected learning materials can significantly enhance vocabulary acquisition and sentence construction among undergraduate students. The substantial improvement in post-test scores for both vocabulary and writing, supported by statistically significant results and large effect sizes, suggests that the intervention was highly effective. Furthermore, the positive correlation between vocabulary gains and improved sentence construction indicates that developing vocabulary plays a critical role in strengthening overall language competence. These results underscore the importance of integrating well-designed instructional materials into language teaching practices to support students' academic and communicative success.

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Conflict of Interest Statement

The author declares no conflicts of interest.

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