

IMPROVING STUDENTS' VOCABULARY MASTERY THROUGH THE VAK (VISUAL, AUDITORY, KINESTHETIC) LEARNING METHOD IN EFL CLASSROOM

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Abstract

This study investigated the effect of the Visual, Auditory, and Kinesthetic (VAK) method on the vocabulary mastery of eleventh-grade students at SMAN 3 Brebes and analyzed students' responses towards the method. A quasi-experimental design with pre-test-post-test instrument was utilized with two intact groups (N = 70): an experimental group (n = 35) received VAK-based instruction and a control group (n = 35) received regular instruction. The experimental group exhibited an improvement from M = 77.00 (SD = 5.906) to M = 84.03 (SD = 6.304), whereas the control group progressed from M = 69.23 (SD = 4.929) to M = 74.46 (SD = 5.606). The paired-sample t-test for the experimental group revealed a significant increase ($t = -13.327$, $df = 34$, $p = .000$). The independent-sample t-test of post-test results revealed a significant difference between groups ($p = .000$), with the experimental group outperforming the control group by an average of 9.571 points. The questionnaire findings revealed predominantly positive student responses, especially with motivation, significant multisensory learning, and enhanced classroom engagement. The data indicate that VAK is statistically effective and well-received for facilitating vocabulary development in an EFL context.

Keywords: VAK method, Vocabulary Mastery; EFL Learning; Students' Response;

1. INTRODUCTION

English proficiency is becoming increasingly important in the age of globalization and digital change, facilitating access to knowledge, technology, and expanded academic and professional opportunities. Since listening, speaking, reading, and writing are all linked, vocabulary mastery becomes a crucial base for comprehension and effective language usage (Hedge, 2003; Benigno et al., 2016). Vocabulary mastery refers to learners' ability to recognize, understand, and use words appropriately, which strengthens communication and comprehension (Alqahtani, 2015). However, the development of vocabulary is influenced by instructional methods and learner characteristics, such as learning styles and motivation (Tri Saswandi et al., 2023; Amriadi & Fadly, 2022; Torrijos-Muelas et al., 2021).

A multisensory method becomes appropriate, as learners absorb knowledge through hearing, seeing, and physical engagement. The Visual, Auditory, and Kinesthetic (VAK) method combines these modalities and is intended to improve active participation and vocabulary retention (Byrnes, 2010). Prior research has also shown that innovative instruction and media-based learning can boost vocabulary acquisition and overall English outcomes (Hussain, 2018; Al Arif, 2020). Nonetheless, classroom challenges remain evident. During the researcher's teaching practices (PLP) at SMAN 3 Brebes, students struggled with vocabulary, were afraid of making mistakes, had limited interaction with vocabulary in relevant contexts, and were taught primarily using workbooks and presentations. These conditions indicate a need for more interactive and responsive instruction, which is in line with classroom interaction as a key indicator in successful English acquisition (Sumartono et al., 2021).

This urgency is reinforced by the Kurikulum Merdeka emphasis on differentiated learning, which adapts instruction to learners' readiness, interests, and learning profiles (Tomlinson, 2014; Purba et al., 2021). Moreover, post-pandemic learning disruption has increased learning poverty globally and contributed to measurable learning deficits, including language outcomes in Indonesia (Hata et al., 2024; World Bank et al., 2021). Accordingly, this study investigates the effect of the VAK method on vocabulary mastery among eleventh-grade students at SMAN 3 Brebes and examines students' responses toward its implementation.

The research questions are: (1) Is there a significant difference in vocabulary mastery between students taught using the VAK method and those taught using regular instruction? (2) What are students' responses toward the use of the VAK method for vocabulary building?

2. METHODOLOGY

The study employed a quantitative quasi-experimental pre-test-post-test design. Two entire eleventh-grade classes from SMAN 3 Brebes (academic year 2025/2026) participated (N = 70). The experimental group (n = 35) was taught vocabulary through VAK-based activities that combined visual media (e.g., images and films), auditory activities (e.g., listening and conversation), and kinesthetic tasks (e.g., role-play and games). The control group (n = 35) got regular instruction, mostly through teacher explanations and textbook or workbook assignments. A 40-item multiple-choice vocabulary test was given as a pre-test and post-test to assess vocabulary mastery. The experimental group was given a 16-item Likert-scale questionnaire (distributed via Google Form) to assess their responses to VAK implementation in terms of motivation and participation, engagement, concentration, and classroom interaction indicators. Data analysis consists of descriptive statistics as well as inferential tests. Normality and homogeneity tests were used to validate the assumptions. The hypothesis was tested using a paired-sample t-test (pre-post within the experimental group) and an independent-sample t-test (post-test comparison between groups) with a significance level of $p < .05$. The questionnaire responses were summarized as percentages.

3. RESULTS AND DISCUSSION

3.1 Descriptive Statistics of Test Instruments

Table 1. Descriptive Statistics of Test Instruments

Measure	N	Min	Max	Mean	SD
Pretest Control Class	35	60	78	69.23	4.929
Posttest Control Class	35	66	85	74.46	5.606
Pretest Experiment Class	35	65	87	75.97	5.843
Posttest Experiment Class	35	70	95	84.03	6.304

The descriptive statistics indicate improvement in both groups after instruction; however, the experimental group achieved higher post-test performance. The experimental group's mean increased from 75.97 to 84.03, while the control group increased from 69.23 to 74.46. The experimental group also reached a higher maximum score (95) than the control group (85), suggesting stronger overall attainment after VAK implementation. The larger post-test standard

deviation in the experimental group (SD = 6.304) indicates that learning gains varied across students.

3.2 Hypothesis Tests

3.2.1 Paired Sample T-Test

Table 2. Paired Sample T-Test (Experimental Group: Pretest vs Posttest)

Pretest Mean	Posttest Mean	Mean Diff (Pre-Post)	T	Df	Sig. (2-tailed)	N
77.00	84.03	-7.029	-13.327	34	.000	35

The paired-sample t-test shows a statistically significant increase in the experimental group's vocabulary scores after VAK instruction ($p = .000$). The mean gain of approximately 7.03 points indicates meaningful improvement within the same group following multisensory learning activities.

3.2.2 Independent Sample T-Test

Table 3. Independent Sample T-Test (Posttest: Control vs Experimental)

Posttest Control Mean	Posttest Experiment Mean	Mean Difference	SE Difference	95% CI (Lower, Upper)	Sig. (2-tailed)
74.46	84.03	-9.571	1.426	(-12.417, -6.726)	.000

The independent-sample t-test indicates a statistically significant difference in post-test scores between groups ($p = .000$). The experimental group outperformed the control group by 9.571 points on average, suggesting that VAK-based instruction was more effective than regular instruction in this context.

3.3 Results of Students' Responses Questionnaire

Table 4. Students' Responses Questionnaire (N = 35; Likert: SA/A/N/D/SD)

No.	Statement (short)	SA	A	N	D/SD	SD
1	I feel more motivated to learn English when the teacher uses visual, auditory, and kinesthetic activities.	28.6%	28.6%	40.0%	2.9%	-
2	The VAK method makes me more interested in learning new vocabulary.	20.0%	31.4%	42.9%	5.7%	-
3	I feel less nervous about learning when the lesson matches my learning style.	45.7%	25.7%	20.0%	2.9%	5,7%
4	I feel proud when I can participate actively in activities	34.3%	34.3%	25.7%	2.9%	2,9%

	that match my learning style.					
5	The VAK method helps me pay more attention in class.	25.7%	28.6%	40.0%	5.7%	-
6	The use of VAK method helps me connect new vocabulary with real experiences.	25.7%	40.0%	22.9%	8.6%	2,9%
7	I find lessons more meaningful when I can see, hear, and do activities.	42.9%	25.7%	25.7%	2.9%	2,9%
8	I stay attentive during lessons that use the VAK method.	25.7%	34.3%	34.3%	5.7%	-
9	The VAK method helps me focus better during vocabulary learning.	28.6%	40.0%	25.7%	5.7%	-
10	Concentrate longer in class when lessons involve multiple senses.	8.6%	31.4%	45.7%	11.4%	2,9%
11	I do not get bored easily when the teacher uses VAK activities.	25.7%	31.4%	34.3%	8.6%	-
12	The VAK method helps me avoid distractions in class.	17.1%	25.7%	54.3%	2.9%	-
13	Activities with visuals, sounds, and movements help me interact more.	25.7%	42.9%	25.7%	5.7%	-
14	The VAK method makes me more confident to work with peers.	34.3%	22.9%	37.1%	5.7%	-
15	VAK lessons make classroom discussions more interesting.	28.6%	37.1%	28.6%	2.9%	2,9%
16	The use of games in VAK lessons increases interaction among students.	48.6%	20.0%	25.7%	2.9%	2,9%

Overall, students reported positive perceptions of VAK implementation, especially regarding meaningful learning through seeing, hearing, and doing activities and increased interaction through group work and games. Neutral responses were more frequent for items

related to sustained concentration, suggesting that the perceived impact on long-duration focus varied among students. Taken together, the perception data complement the test results: VAK was associated with improved vocabulary achievement and was generally well received in terms of motivation, engagement, and classroom interaction.

4. CONCLUSION

This study confirms a statistically significant difference in vocabulary mastery between students taught using the VAK method and those taught using regular instruction. The experimental group achieved higher post-test performance ($M = 84.03$) than the control group ($M = 74.46$), and the post-test difference was significant ($p = .000$). Within the experimental group, vocabulary scores increased significantly from pre-test to post-test ($t = -13.327$, $df = 34$, $p = .000$), indicating meaningful gains after VAK-based instruction.

Students' responses toward VAK implementation were generally positive. Most students indicated that VAK activities increased motivation and meaningful learning experiences and supported classroom interaction, although some students remained neutral regarding sustained concentration. Overall, the findings suggest that VAK is an effective and acceptable approach for vocabulary learning in the investigated EFL classroom context.

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