

The impact of differentiated instruction on vocabulary use in B1-level EFL students' written production

El impacto de la instrucción diferenciada en el uso del vocabulario en la producción escrita de estudiantes EFL nivel B1

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Palabras claves: Instrucción diferenciada; desarrollo del vocabulario; habilidades de escritura; EFL; estudiantes B1; competencia léxica; escritura académica; andamiaje; retroalimentación formativa.

Introducción: el desarrollo del vocabulario en estudiantes de inglés como lengua extranjera (EFL) es un componente esencial para mejorar la producción escrita. Sin embargo, los estudiantes de nivel B1 presentan limitaciones en el uso léxico, lo que afecta la coherencia y precisión de sus textos. **Objetivo:** analizar el impacto de la instrucción diferenciada en el uso del vocabulario y la calidad de la producción escrita en estudiantes EFL de nivel B1. **Metodología:** se aplicó un enfoque cuantitativo con diseño cuasi-experimental de pretest–post test y modalidad mixta. La muestra estuvo conformada por 30 estudiantes de nivel B1 entre 18 y 35 años. La intervención tuvo una duración de 20 horas e incluyó actividades de escritura andamiada, tareas diferenciadas y retroalimentación formativa. Se utilizaron pruebas de escritura, cuestionarios tipo Likert y listas de observación. **Resultados:** se evidenciaron mejoras significativas en el uso del vocabulario, específicamente en el rango léxico, precisión, adecuación y coherencia. Además, los estudiantes reportaron percepciones positivas hacia la instrucción diferenciada y se observó alta fidelidad en la implementación. **Conclusión:** la instrucción diferenciada mejora significativamente el uso del vocabulario y la calidad de la escritura en estudiantes EFL de nivel B1, promoviendo el desarrollo lingüístico y la motivación académica. **Área de estudio general:** educación. **Área de estudio específica:** Enseñanza del inglés como lengua extranjera (EFL) / Desarrollo del vocabulario en escritura. **Tipo de estudio:** Artículo original.

Keywords: Differentiated instruction; vocabulary development; writing skills; EFL; B1 learners; lexical competence; academic writing; scaffolding; formative feedback..

Abstract: Introduction: vocabulary development is a key component in English as a Foreign Language (EFL) learning, particularly in writing skills. However, B1-level learners often show limitations in lexical use, affecting coherence and accuracy in written production. **Objective:** to analyze the impact of differentiated instruction on vocabulary use and writing performance in B1-level EFL students. **Methodology:** a quantitative quasi-experimental pretest–posttest design with a mixed-methods approach was applied. The sample consisted of 30 B1-level students aged 18 to 35. The intervention lasted 20 hours and included scaffolded writing activities, differentiated tasks, and formative feedback. Data was collected through writing tests, Likert-scale questionnaires, and observation checklists. **Results:** significant improvements were found in vocabulary range, accuracy,

appropriateness, and coherence. Students also reported positive perceptions of differentiated instruction, and high implementation fidelity was observed. **Conclusion:** differentiated instruction significantly improves vocabulary use and writing quality in B1-level EFL learners, enhancing linguistic development and learner motivation. **General Area of Study:** Education. **Specific area of study:** English as a Foreign Language (EFL) teaching / Vocabulary development in writing. **Type of study:** Original article.

1. Introduction

Vocabulary development is a key component in English as a Foreign Language (EFL) learning, particularly in writing production, where learners are expected to express ideas with clarity, accuracy, and coherence. However, B1-level students frequently demonstrate limitations in lexical range, repetition of basic vocabulary, and lack of precision, which negatively affect their written performance.

Recent studies have highlighted that restricted vocabulary use remains one of the most persistent challenges in intermediate EFL learners, directly impacting writing quality and communicative effectiveness (Zeng et al., 2025; Song & Abdullah, 2024). These limitations are often associated with traditional instructional approaches that do not sufficiently address learner diversity or provide individualized support.

Differentiated instruction has been proposed as an effective pedagogical approach that adapts teaching strategies according to students' readiness levels, learning profiles, and needs. Through scaffolded tasks, tiered

activities, and continuous formative feedback, this approach facilitates vocabulary acquisition and promotes meaningful language use in writing contexts (Anggraeni et al., 2025).

Recent literature has also emphasized the importance of vocabulary instruction and learner-centered writing approaches in EFL contexts. Beyond differentiated instruction, researchers have highlighted the need for pedagogical practices that promote meaningful language use, vocabulary expansion, and active learner engagement. According to Nation (2001) vocabulary knowledge constitutes a fundamental component of language proficiency and directly influences writing performance. Likewise, Hyland (2023) highlighted that effective writing instruction should combine linguistic development, scaffolding, and meaningful communication. In addition, Mazyani et al. (2025) reported that innovative instructional strategies and technology-supported learning environments contribute positively to writing development and learner engagement. Similar conclusions were reached by Zhai & Razali (2023) who identified explicit instruc-

tional support and genre-based approaches as key factors in improving EFL writing performance.

The justification for this study lies in the need to improve vocabulary development strategies in heterogeneous EFL classrooms, where students present different proficiency levels and learning paces. Addressing these differences is essential to enhance writing performance, foster learner autonomy, and support more inclusive language learning environments.

The objective of this research is to analyze the impact of differentiated instructional strategies on vocabulary use and writing performance in B1-level EFL students. It is hypothesized that differentiated instruction significantly improves vocabulary range, accuracy, appropriateness, and coherence in written production.

This study contributes to the field of EFL pedagogy by providing empirical evidence on the effectiveness of differentiated instruction in improving lexical competence and writing quality in intermediate-level learners.

2. Methodology

This study followed a quantitative approach with a quasi-experimental pretest–posttest design, complemented by a mixed-methods perspective to strengthen data interpretation through qualitative insights. The research was conducted at a descriptive and explanatory level, focusing on the effect of differentiated instruction on vocabulary use in

written production.

The population consisted of 30 B1-level EFL students aged between 18 and 35 years, selected through non-probabilistic convenience sampling. Inclusion criteria required participants to be officially classified at B1 level, regularly attend classes, and complete all stages of the intervention. Students who did not complete the full process were excluded from the final analysis.

The instructional intervention lasted 20 hours and was implemented through differentiated instructional strategies, including scaffolded writing tasks, tiered activities, visual support, and continuous formative feedback. These strategies were selected to respond to learner diversity and enhance lexical development, accuracy, and coherence in writing.

Data collection instruments included a pretest and posttest writing assessment, a Likert-scale questionnaire, and a structured classroom observation checklist. These instruments allowed for triangulation of data to ensure validity and reliability of findings.

Data analysis was conducted using descriptive statistics, including means, standard deviations, minimum and maximum values, to compare pretest and posttest performance. Qualitative data from observations and questionnaires were used to support quantitative results.

Ethical considerations were strictly followed, including informed consent, confidentiality, voluntary participation, and the right

to withdraw at any time without academic consequences. The study adhered to institutional ethical standards for educational research.

3. Results

The results are presented according to the pretest–posttest quasi-experimental design used to measure vocabulary development and writing performance in B1-level EFL students. The analysis is organized into four dimensions: vocabulary range, vocabulary accuracy, vocabulary appropriateness, and coherence.

3.1 Pretest results

As shown in **Table 1**, the pretest results indicate low performance across all evaluated criteria. The mean scores were vocabulary range ($M = 1.83$), vocabulary accuracy ($M = 1.87$), vocabulary appropriateness ($M = 1.87$), and coherence ($M = 1.87$). These values reflect limited lexical production and basic writing performance among participants.

Tabla 1: Descriptive analysis of vocabulary and coherence criteria in written production ($N = 30$)

Criteria	Min.	Max.	Mean	SD
Vocabulary Range	1.00	2.5	1.83	0.44
Vocabulary Accuracy	1.00	2.5	1.87	0.41
Vocabulary Appropriateness	1.00	2.5	1.87	0.44
Coherence	1.00	2.5	1.87	0.44

3.2 Post test results

Table 2 shows post-intervention results. The mean scores increased in all dimensions: vocabulary range ($M = 2.38$), vocabulary accuracy ($M = 2.37$), vocabulary appropriateness ($M = 2.37$), and coherence ($M = 2.30$)

Tabla 2: Post test writing assessment (30 students)

Criteria	Min	Max	Mean	SD
Vocabulary Range	2.00	2.50	2.38	0.16
Vocabulary Accuracy	2.00	2.50	2.37	0.16
Vocabulary Appropriateness	2.00	2.50	2.37	0.16
Coherence	2.00	2.50	2.30	0.17

3.3 Comparative analysis (pretest–posttest)

A comparison between pretest and posttest results reveals an increase in all measured variables:

- Vocabulary range increased from 1.83 to 2.38
- Vocabulary accuracy increased from 1.87 to 2.37
- Vocabulary appropriateness increased from 1.87 to 2.37
- Coherence increased from 1.87 to 2.30

3.4 Questionnaire results

Table 3 presents the results of the Likert-scale questionnaire. The overall mean score was 4.30 ($SD = 0.55$), indicating generally

positive responses across all dimensions: vocabulary support, task differentiation, vocabulary use in writing, and motivation and engagement.

3.5 Classroom observation results

Table 4 shows the results of the classroom observation checklist. High implementation fidelity was observed across all dimensions, including vocabulary support ($M = 1.93$), differentiated instruction ($M = 1.95$), and vocabulary use in writing ($M = 1.99$).

4. Discussion

The findings of this study demonstrate that differentiated instructional strategies positively influence vocabulary development and writing performance in B1-level EFL learners. The improvements observed in vocabulary range, accuracy, appropriateness, and coherence suggest that adapting instruction to learners' needs facilitates more effective lexical acquisition and written expression. These results support the growing body of evidence indicating that learner-centered pedagogical approaches contribute significantly to language development in EFL contexts.

The results are consistent with the systematic review conducted by Zeng et al. (2025) which highlighted the effectiveness of explicit vocabulary instruction in improving English learners' lexical knowledge and language performance. The increase in vocabulary observed in the present study suggests that differentiated instructional practices can provide opportunities for learners to expand

their lexical repertoire and use a wider variety of vocabulary items in writing tasks.

Similarly, Song & Abdullah (2024) emphasized that contemporary EFL writing instruction benefits from approaches that promote active learner engagement and meaningful language use. In the current study, differentiated tasks encouraged students to participate actively in writing activities according to their readiness levels and learning needs, which may explain the positive outcomes observed in both vocabulary development and writing quality.

The findings are also aligned with Angraeni et al. (2025) who reported that self-regulated learning-based instruction enhances students' academic writing skills by fostering learner autonomy and strategic learning behaviors. The differentiated activities implemented during the intervention allowed students to work at an appropriate level of challenge, facilitating greater responsibility for their own learning process and supporting vocabulary growth.

Furthermore, Hassen et al. (2024) found that scaffolded instructional strategies significantly improve EFL students' writing achievement. The use of scaffolded writing activities in the present study likely contributed to reducing learners' cognitive load and providing structured support during the writing process. This may have enabled participants to focus more effectively on vocabulary selection, organization of ideas, and overall text quality.

The positive results obtained in coherence

Tabla 3: Descriptive Statistics of the Likert-Scale Questionnaire (n = 30)

Dimension	Item	Mean	SD	Interpretation
Vocabulary Support	Q1	4.67	0.63	Very positive perception
	Q2	4.30	0.55	Positive perception
	Q3	4.40	0.50	Very positive perception
Task Differentiation	Q4	4.10	0.60	Positive perception
	Q5	4.10	0.60	Positive perception
	Q6	4.43	0.55	Very positive perception
Vocabulary Use in Writing	Q7	4.30	0.50	Positive perception
	Q8	4.40	0.50	Very positive perception
	Q9	4.17	0.55	Positive perception
Motivation and Engagement	Q10	4.40	0.50	Very positive perception
	Q11	4.17	0.55	Positive perception
	Q12	4.13	0.60	Positive perception
Overall Mean		4.30	0.55	Positive perception

Tabla 4: Descriptive Statistics of Classroom Observation Checklist (n = 30)

Dimension	Items	Mean	SD	Interpretation
Vocabulary Support	1–5	1.93	0.05	Very high implementation
Differentiated Instruction	6–9	1.95	0.04	Very high implementation
Vocabulary Use in Writing	10–14	1.99	0.03	Very high implementation

are consistent with the findings of Keller et al. (2024) who highlighted the importance of language quality, content organization, and text structure as essential components of writing performance. As learners developed greater lexical competence, they were also able to produce more coherent and organized texts, suggesting an interconnected relationship between vocabulary knowledge and written communication.

Likewise, Lötscher et al. (2025) reported that lexical and grammatical development are closely associated with successful argumentative writing among EFL learners. The substantial gains observed in vocabulary range and appropriateness in this study reinforce the notion that targeted instructional interventions can strengthen learners' lin-

guistic resources and improve written production.

The findings are further supported by Nguyen & Van Vu (2024) who demonstrated that model texts and feedback-based writing instruction positively affect student engagement and draft quality. In the present study, formative feedback was continuously provided throughout the intervention, enabling learners to identify lexical weaknesses, revise their texts, and progressively improve their writing performance.

In addition, Zahra & Wijayatiningsih (2024) argued that effective writing instruction should move beyond the teaching of grammar and vocabulary in isolation and promote higher-order thinking skills. Differentia-

ted instruction may have contributed to this process by encouraging students to analyze information, organize ideas, and communicate meaning more effectively through writing.

The present findings also support the conclusions of Ahmad & Mohd (2025) whose bibliometric review identified vocabulary development as one of the most influential factors affecting EFL writing achievement. The significant improvements obtained across all vocabulary-related dimensions provide further evidence of the critical role that lexical competence plays in written language production.

The findings of the present study are also consistent with Esperanzate (2025) who emphasized that academic writing instruction should integrate explicit vocabulary support, scaffolding techniques, and learner-centered activities. These pedagogical practices facilitate vocabulary acquisition and improve the overall quality of written production among EFL learners. The differentiated activities implemented during the intervention provided structured opportunities for students to expand their lexical repertoire and improve their writing performance.

Similarly, Al-Jarf (2026) highlighted the importance of creative classroom practices and differentiated learning experiences in fostering writing development. The positive perceptions reported by students in the present study support the view that engaging and adaptive instructional strategies contribute to both linguistic growth and learner mo-

tivation. These findings reinforce the value of differentiated instruction as an effective approach for improving EFL writing outcomes.

Overall, the results indicate that differentiated instruction constitutes an effective pedagogical approach for enhancing vocabulary development and writing performance among B1-level EFL learners. By incorporating scaffolded activities, differentiated tasks, and formative feedback, teachers can create learning environments that address student diversity while promoting meaningful language use and academic success.

Despite these positive outcomes, several limitations should be acknowledged. The relatively small sample size restricts the generalizability of the findings, and the absence of a control group limits the ability to establish strong causal relationships. Future studies should include larger samples, experimental designs, and longitudinal analyses to further investigate the long-term impact of differentiated instruction on vocabulary development and other language skills.

5. Conclusions

- This study examined the impact of differentiated instructional strategies on vocabulary use and writing performance among B1-level EFL students. The findings revealed positive improvements in vocabulary range, accuracy, appropriateness, and coherence following the implementation of differentiated instruction. These results support the hypothesis that adapting instructio-

nal practices to learners' needs can enhance lexical competence and overall writing quality.

- The intervention demonstrated that scaffolded activities, tiered tasks, and formative feedback can effectively support vocabulary development and facilitate meaningful language use in writing. By providing learning opportunities that address students' varying readiness levels and learning profiles, differentiated instruction contributed to increased engagement and improved written production.
- The findings are consistent with previous research highlighting the value of learner-centered and differentiated approaches in EFL education. The results suggest that vocabulary development is strengthened when instruction is responsive to individual learner differences and incorporates structured support throughout the writing process.
- Furthermore, this study contributes to the growing body of research on differentiated instruction in EFL contexts by providing empirical evidence of its positive effects on vocabulary development and writing performance among intermediate-level learners.
- From a pedagogical perspective, the study provides evidence that differentiated instruction can serve as an effective strategy for improving writing performance in heterogeneous EFL classrooms. Teachers are encouraged to in-

tegrate flexible instructional practices, scaffolded learning experiences, and continuous feedback mechanisms to promote vocabulary growth and communicative competence.

- Despite its contributions, this study has certain limitations, including the relatively small sample size and the absence of a control group. Future research should examine the long-term effects of differentiated instruction using larger samples, experimental research designs, and diverse educational contexts. Further studies may also explore the impact of differentiated instruction on other language skills such as reading, speaking, and listening.
- In conclusion, differentiated instruction represents a valuable pedagogical approach for fostering vocabulary development and enhancing writing performance among intermediate EFL learners. The evidence obtained in this study supports its implementation as an inclusive and effective strategy for improving language learning outcomes in English language classrooms.

6. Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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8. Author contributions

The authors declare that they have participated equally and substantially in the conduct of this research, under the responsibilities under the CRediT Taxonomy to describe the individual contributions of each author to the work.

Alexandra Emérita Tapia Castillo and Katherine Johanna Ontano Portugal carried out the conceptualization of the research, organization and execution of the essay, collection and curation of the data, review of the statistical analysis, interpretation of the results, preparation of the original draft, preparation of tables and figures, critical review of the content and approval of the final version of the manuscript.

Rodrigo Antonio Guerrero Segura and Josué Reinaldo Bonilla Tenesaca carried out the academic and methodological supervision of the research, provided guidance during the development of the essay, reviewed the analysis and interpretation of the results, carried out the critical review of the manuscript, made the scientific and academic correction and approved the final version for publication.

Disclosure of generative AI use

The authors declare the use of generative artificial intelligence tools during the research process for idea generation, structuring, and literature organization. The tool used was ChatGPT-4. Full responsibility for the final

content lies with the authors. The tools are not listed as authors and do not assume responsibility for the results.

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