

## Achieving reading comprehension through integrated vocabulary instruction

Alcançando a compreensão da leitura por meio da instrução integrada de vocabulário

Integrando enseñanza de vocabulario para la comprensión de lecturas

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### Abstract

Reading and vocabulary have long been considered an intrinsic connection to help students acquire the language, but the literature suggests vocabulary as a pivotal feature to guarantee reading comprehension. This research study from a master's dissertation tried to explain the gains and perceptions of integrated vocabulary instruction on reading comprehension performance. To accomplish the aim of the study, sixty-six A1 EFL students from a rural public school in their first baccalaureate year were selected and assigned into two groups (traditional and integrated). All participants took part in eight reading lessons with their designated vocabulary instruction. After each class, they took a reading comprehension test based on literal comprehension questions. Moreover, at the end of the research, the perceptions of the experimental group (integrated instruction) were gathered. After analyzing the data, this study found that integrated vocabulary instruction can lead to higher reading comprehension achievement at a beginner level of proficiency. Moreover, this research proposes an extensive study on the benefits of integrated instruction when working with upper proficiency levels.

**Keywords:** Traditional reading; Literal comprehension; Proficiency; Beginners; Foreign language.

### Resumo

A leitura e o vocabulário há muito são considerados uma conexão intrínseca para ajudar os alunos a adquirir a língua, mas a literatura sugere o vocabulário como um recurso fundamental para garantir a compreensão da leitura. Este estudo, advindo de uma pesquisa de dissertação de mestrado, tentou explicar os ganhos e percepções do ensino integrado de vocabulário no desempenho da compreensão leitora. Para cumprir o objetivo do estudo, sessenta e seis alunos de nível A1 de inglês de uma escola pública rural em seu primeiro ano de ensino médio foram selecionados e distribuídos em dois grupos (tradicional e integrado). Todos os participantes participaram de oito aulas de leitura com a instrução de vocabulário designada. Após cada aula, eles participaram de um teste de compreensão de leitura baseado em questões de compreensão literal. Além disso, ao final da pesquisa, foram levantadas as percepções do grupo experimental (instrução integrada). Depois de analisar os dados, este estudo descobriu que a instrução integrada de vocabulário pode levar a uma maior realização de compreensão de leitura em um nível iniciante de proficiência. Além disso, este trabalho de pesquisa propõe um extenso estudo sobre os benefícios da instrução integrada ao trabalhar com níveis superiores de proficiência.

**Palavras-chave:** Leitura tradicional; Compreensão literal; Proficiência; Iniciantes; Língua estrangeira.

### Resumen

Reading and vocabulary have long been considered an intrinsic connection to help students acquire the language, but the literature suggests vocabulary as a pivotal feature to guarantee reading comprehension. This research study from a master's dissertation tried to explain the gains and perceptions of integrated vocabulary instruction on reading comprehension performance. To accomplish the aim of the study, sixty-six A1 EFL students from a rural public school in their first baccalaureate year were selected and assigned into two groups (traditional and integrated). All

participants took part in eight reading lessons with their designated vocabulary instruction. After each class, they took part in a reading comprehension test based on literal comprehension questions. Moreover, at the end of the research, the perceptions of the experimental group (integrated instruction) were gathered. After analyzing the data, this study found that integrated vocabulary instruction can lead to the higher achievement of reading comprehension at a beginner level of proficiency. Moreover, this research work proposes an extensive study on the benefits of integrated instruction when working with upper levels of proficiency.

**Palabras clave:** Traditional reading; Literal comprehension; Proficiency; Beginners; Foreign language.

## 1. Introduction

Nation (2009) stated that two of the focuses of intensive reading are *Comprehension* which looks for understanding a text, and *Vocabulary*, where learners' attention focuses on useful words as well as their meaning and use. Thus, integrated vocabulary instruction could encompass the Content Language Integrated Learning (CLIL) approach proposed by the Ecuadorian curriculum. The EFL curriculum considers CLIL as a method to access and learn English in an authentic and meaningful context, focusing on language in use rather than knowledge of context. Also, one of the three top goals set in the English Curriculum is to develop the social, intellectual, and personal skills to achieve learners' potential to contribute productively in a progressively globalized world that functions in English. Therefore, teaching reading is a meaning-focused input strand that requires considerable attention in class and outside. Furthermore, learners could experience learning unfamiliar words by engaging in reading instead of giving attention to separate bits of information (Nation, 2009).

For that reason, this paper aims to describe the effects of integrated vocabulary instruction on reading comprehension activities by examining A1 EFL first-year baccalaureate learners' performance. Thus, after exploring the data, it will be possible to determine the effects of Integrated Vocabulary Instruction (IVI) on learners' reading comprehension outcomes.

## 2. Literature Review

As reading is useful for language acquisition (Harmer, 2007), comprehension of a text involves language knowledge and recognition of main ideas (Grabe, 2004). However, Nation (2009) highlighted that apart from *comprehension*, which means understanding a text in intensive reading, the *vocabulary* emphasizes drawing learners' attention to useful words, their meaning, and their use. Khazaal (2019) indicated that intensive reading could positively impact students' attitudes toward using vocabulary. Both comprehension and vocabulary are part of the features of intensive reading. Harmer (2007) said that intensive reading focuses on details explored in class in most cases. Intensive reading is a way of increasing learners' knowledge of features of the language and reading strategies, improving their reading abilities, and focusing on comprehension of text (Nation, 2009). However, the literature also encourages looking for evidence that supports instructional practices, so teachers can minimize adverse effects or consequences when applying new strategies (Grabe, 2004). Improving reading comprehension in adolescents will require a concerted effort from professionals involved in the educational field to refrain from short-term gains regarding low-level comprehension for long-term solutions that take years to develop (Oslund & Elleman, 2019).

The literature collected by Olmez (2016) also explains that reading comprehension encircles low and high levels of processing. As lower levels work for decoding, higher levels go beyond recognition. These higher levels allow the reader to implement skills and strategies to understand the meaning, interpret, make inferences and evaluate information in a text (Grabe, 2017). Besides, there are three levels of reading comprehension: literal, inferring, and evaluating. Firstly, the readers work on literal comprehension, which requires taking explicit information from a text. Then, subsequently, these tasks help the readers get immersed in a deeper interaction through inferring and evaluating (Basaraba et al., 2012).

When examining the relationship between reading comprehension and vocabulary size, there is a great achievement in reading comprehension tests if there is a high performance in vocabulary tests. In other words, the more words a learner acquires, the more he can understand a reading text (Engku, Sarudin, & Muhamad, 2016). However, a chosen text used in class

should embrace two considerations: the unknown words to be tolerated and the vocabulary size the students need. Chall (1987) argued that vocabulary is primary for communication and a prerequisite for reading comprehension (as cited in Naeimi & Chow, 2015). This author also exposed that adequate knowledge of words contributes to reading comprehension, and reading abilities can promote vocabulary enhancement.

A review by Hamzehlou et al. (2012) to expand our understanding of the intricate relationship between vocabulary and reading comprehension highlights the importance of vocabulary knowledge in language acquisition. For instance, learners can experience difficulties with unknown words while reading. Thus, students and teachers may recognize that word recognition or lexical access is one of the most significant obstacles to reading comprehension. Nevertheless, many EFL teachers challenge their students' capacity to deal with no familiar words in a text. Moreover, there is important that knowledge depth, vocabulary knowledge breadth, and reading comprehension are thoroughly interrelated (Hamzehlou, Zainal, & Ghaderpour, 2012). Zucker, Cabell, and Pico (2021) explained that incidental learning could occur in exposure to a word, but direct vocabulary pretends to focus on explanation and remember the meaning. The authors argued that quality language input with direct teaching vocabulary improves recall of words and deepens understanding in reading comprehension.

Reading and vocabulary size is a reciprocal activity where reading depends on vocabulary and vice versa. Reading comprehension is the central purpose of reading, but sometimes it is considered annoying or confusing. In other words, reading comprehension can become complicated to teach due to its purpose, properties, and reading itself. Some studies focus on the effect of vocabulary size on reading comprehension (Hamzehlou et al., 2012), while others concentrate on the consequences of reading comprehension on vocabulary size (Gungor & Yayh, 2016). Vocabulary is considered a keystone in curriculum design and must be introduced in school through reading instruction (Berne & Blachowicz, 2008). Teachers' reflection has shown that educators know the importance of finding the best systematic and understandable manner to help their students learn vocabulary. Moreover, literature proposes that vocabulary knowledge and instruction can work simultaneously with reading instruction (Bachowickz et al., 2006) using a comprehensive and integrated method to teach vocabulary and reading.

### **2.1 Research questions**

By carrying out the present research study, the researchers tried to find out the answers to the following questions: Is there a variation in reading comprehension performance regarding an experimental and control group of A1 EFL first-year baccalaureate students of a public school? And What are the learners' perceptions in the experimental group toward integrated vocabulary instruction?

## **3. Methodology**

The data in this study was gathered through the quantitative method with an experimental design. Mackey and Gass (2005) claimed that a typical experimental study involves comparison to answer the research question. This method is also known as a between-group design (Creswell, 2015).

### **3.1 Instruments for data collection.**

Eight reading comprehension tests, one questionnaire, and reading material were used to gather the data. The eight reading tests measured the reading comprehension performance. Each test had two parts: the first was based on pronominal and yes/no questions and the second covered sentence completion. Each reading comprehension test contained five questions and five sentence completion exercises.

The second instrument was an adapted questionnaire to know the perceptions regarding learning vocabulary through reading. Before the main data collection, a pilot study was run with 35 non-participant students to test internal reliability. After

being tested with Cronbach's Alpha coefficients (Bryman, 2012), they had an internal consistency of 0.8.

The material included eight short reading lessons from [www.rong-chang.com](http://www.rong-chang.com) with similar characteristics such as word length, level (A1), and familiar context. However, the texts were adapted to fit the needs of the study. Regarding the words, all the chosen words were included. A total of 5 or 6 words per text (43 target words for the study) were selected. Each reading lesson and the following test were piloted before the study.

### 3.2 Research process

The reading sessions took place over four weeks in learners' regular schedule, two sessions per week. In the control group (group A), the target vocabulary was taught following the traditional form; in other words, it was pre-taught. Each class started with a warm-up activity related to the short text. Following this stage, the teacher introduced the vocabulary using flashcards, focusing on its form and making sentences with the word. Then, the title was discussed, or pictures were used to make predictions about the reading. Finally, reading the whole text with the teacher helped to control the pace of the reading and guaranteed that all participants were processing the text.

In a similar scenario but with a significant difference, the experimental group started with the warm-up. The title or pictures were fully discussed to get an idea of the text. Afterward, the researcher or a volunteer read the text aloud while the rest of the class followed along. If there was a sentence with a target word, the reader stopped at the end of the sentence, so the researcher could introduce the unknown word with a flash card, giving a synonym or translation, defining its role in the phrase, and providing a new sentence with the target word. In this process, the words were taught in the content. The teacher employed the same amount of time to teach the words in both groups to avoid extra exposure in class. Furthermore, learners could take notes as usual to prevent disagreements in the teaching/learning traditional environment.

After each reading lesson, the participants took a reading comprehension test to determine whether the two groups had a variation in reading comprehension performance. The survey was administered a day after the last reading class to allow students in group B to digest what they had learned in the reading class and avoid disrupting how they perceived the instruction.

## 4. Results and Discussion

An SPSS statistic program was used to answer the research questions. An Independent Sample t-Test calculated and compared the means of the Reading comprehension of the two groups. The SPSS program also coded the data from the questionnaire, and the results were presented in different charts retrieved from the statistical program.

**Table 1.** Summary of the total mean of Reading Comprehension Tests.

	Instruction	N	M	SD	Std. Error Mean
Performance	Traditional	35	8.22	.92	0.16
	Integrated	31	8.63	.62	0.11

Source: Authors.

**Table 2.** Independent Samples Test results from the total mean of Reading Comprehension Tests.

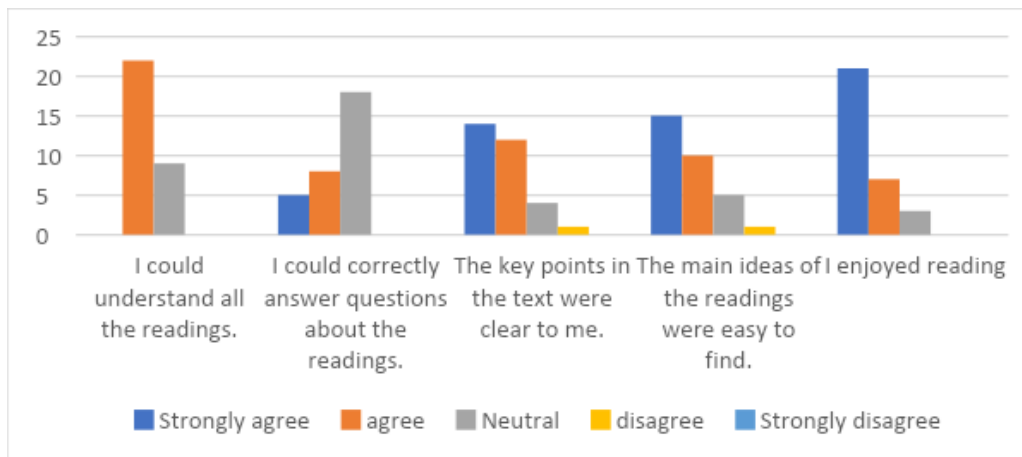
		Levene' s Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	MD	Std. Error Difference	95% CI of the Difference	
Performance	Equal variances assumed	4.40	.040	-2.08	64	.042	-.41	.20	-.80	-.02
	Equal variances not assumed			-2.13	59.97	.037*	-.41	.19	-.79	-.02

Note: MD= Mean Difference; LL=lower level; UL=upper level. \*  $p > .05$ . Source: Authors.

An independent sample t-test was conducted to compare the performance in the traditional vocabulary instruction and integrated vocabulary instruction. Table 1 shows a difference between the scores of the traditional vocabulary instruction (M=8.22, SD= 0.92) and integrated vocabulary instruction (M=8.63, SD=0.62) performance;  $t(64) = -2.08$ ,  $p = 0.037$ . Wright and Cervetti (2016) found that a longer-term strategy is required for further transfer effects. However, it is clear that students who experienced integrated vocabulary instruction performed better on reading comprehension tasks than those exposed to the traditional instruction of learning target vocabulary before the reading lesson. Beginners activate meaning when words are read in context (Ehri, 2022). These results demonstrate that an early and sustained focus on a characteristic such as vocabulary, inference, and comprehension monitoring skills are decisive in improving reading comprehension (Oslund & Elleman, 2019).

Moreover, as there are no equal participants in each group (35 in the traditional group and 31 in the integrated group), Levene’s test helped to understand whether the group variances could be treated as equal or unequal (Table 2).

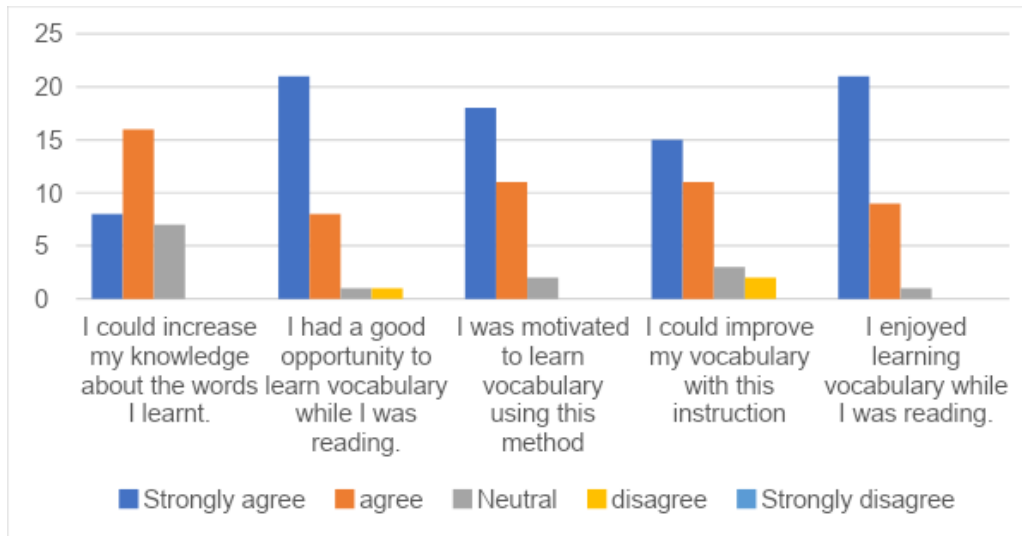
**Figure 1.** Learners’ perceptions in the experimental group toward reading comprehension.



Source: Authors.

When talking about the understanding of the readings, most of the learners said that they could comprehend the short passages. However, 18 out of 31 felt unsure whether they could answer the comprehension tasks correctly or not. That is contradictory, given that a majority who strongly agreed and agreed perceived that the key points were clear and the main ideas were easy to find in the passages. Reading enjoyment was one of the most exciting items regarding perceptions of reading comprehension. Regarding this issue, most learners showed superior satisfaction with the quotes. As the readings were suitable for students’ level (Harmer, 2007) and familiar topics, they felt engaged to participate with the texts. Authentic reading materials are practical for EFL reading comprehension because they relate to learners’ daily lives (Kung, 2017).

**Figure 2.** Learners' perceptions in the experimental group toward learning vocabulary through reading.



Source: Authors.

The second stage of the questionnaire regarding attitudes toward learning vocabulary through reading illustrated that many learners agreed on perceiving a rise in their knowledge (words they knew). Moreover, most of them (n=21) strongly agreed that integrated vocabulary instruction is a tremendous opportunity to learn unfamiliar words while reading. Nation (2009) also considered intensive reading a chance to look for other language features, such as grammar or vocabulary. Consequently, the findings showed that the learners felt moved to learn new words and had an impression of improving their vocabulary awareness. Specifically, 26 students had a similar concordance in their perceptions between agreeing and strongly agreeing. Additionally, the participants in the integrated group shared a firm agreement on perceiving an enjoyment in learning vocabulary while they were exploring the passages.

## 5. Conclusion

A crucial aim of this paper was to prove the effectiveness of an integrated vocabulary instruction implemented to improve reading comprehension performance in a group of A1-level students who attend a public school in a rural area. The findings indicate the gains of using integrated vocabulary instruction compared with the results obtained when teaching target vocabulary before a reading lesson. Furthermore, the results obtained from the questionnaire provided a deep insight into students' perception of learning new words that allow them to comprehend short readings. They also felt more confident asking for word clarification at any time during the reading stage and experienced enjoyment in reading something adapted to their level.

Consequently, teachers are encouraged to implement this instruction in reading comprehension activities because of its easy and successful application with low English proficiency learners. In the same line, teachers are also recommended to elaborate congruent material that matches students' needs and interests so that it can be included in the school's curriculum. It is also suggested to design additional teaching material such as flashcards or visual aids related to the reading material.

However, this study faced some limitations regarding students' level and time. Both groups received the corresponding instructions from classmates with higher levels and ages. The second constraint was time; a more comprehensive study could provide different results. Therefore, for future research, we suggest an extensive study that might produce a better view of the results regarding reading comprehension in low stages of proficiency. Furthermore, working with advanced-level language and testing comprehension that goes beyond literal comprehension might provide thought-provoking

results to help students promote their reading comprehension, therefore, improve their overall command of English.

## References

- Bachowickz, C., Fisher, P., & Ogle, D. (2006). Vocabulary: Questions from the classroom. *Reading Research Quarterly*, 41(4), 524-539. doi:10.1598/RRQ.41.4.5
- Basaraba, D., Yovanoff, P., Alonzo, J., & Tindal, G. (2012). Examining the structure of reading comprehension: do literal, inferential, and evaluative comprehension truly exist? *Reading and Writing*, 26(3), 349-379. doi:10.1007/s11145-012-9372-9
- Berne, J., & Blachowicz, C. (2008). What Reading Teachers Say about Vocabulary Instruction: Voices From the Classroom. *The Reading Teacher*, 62(4), 314-323. doi:10.1598/RT.62.4.4
- Bryman, A. (2012). *Social Research Methods* (4th ed.). New York, NY: Oxford University Press.
- Golonka, E., Bowles, A., Silbert, N., Kramasz, D., Blake, C., & Buckwalter, T. (2015). The Role of Context and Cognitive Effort in Vocabulary Learning: A Study of Intermediate-Level Learners of Arabic. *The Modern Language Journal*, 99(1), 19-39. doi: 10.1111/modl.12191
- Engku, E., Sarudin, I., & Muhamad, A. (2016). The Relationship between Vocabulary Size and Reading Comprehension of ESL Learners. *English Language Teaching*, 9(2), 116-123. doi:10.5539/elt.v9n2p116
- Ehri, L. (2022). What Teachers need to know and to teach letter-sounds-phonemic awareness, Word reading, and Phonics. *The Teacher Reader*, 76(1), 53-61. doi:101002/trtr.2095
- Khazaal, E. (2019). Impact of Intensive Reading Strategy on English for Specific Purposes College Students' in Developing Vocabulary. *Arab World English Journal*, 10(2), 181-195. doi: <https://dx.doi.org/10.24093/awej/vol10no2.15>
- Kung, F. (2017). Teaching second language reading comprehension: the effects of classroom materials and reading strategy use. *Innovation in Language Learning and Teaching*, 1-12. doi: 10.1080/17501229.2017.1364252
- Golonka, E., Bowles, A., Silbert, N., Kramasz, D., Blake, C., & Buckwalter, T. (2015). The Role of Context and Cognitive Effort in Vocabulary Learning: A Study of Intermediate-Level Learners of Arabic. *The Modern Language Journal*, 99(1), 19-39. doi: 10.1111/modl.12191
- Grabe, W. (2004). Research on Teaching Reading. *Annual Review of Applied Linguistics*, 24, 44-69. doi:10.1017/S0267190504000030
- Grabe, W. (2017). L2 reading comprehension and development. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning*, 3, 299-311.
- Gungor, F., & Yayh, D. (2016). The Interplay between Text-based Vocabulary Size and Reading Comprehension of Turkish EFL Learners. *Educational Sciences: Theory and Practice*, 16(4), 1171-1188. doi:10.12738/estp.2016.4.0078
- Hamzehlou, S., Zainal, Z., & Ghaderpour, M. (2012). A Review on the Important Role of Vocabulary Knowledge in Reading Comprehension Performance. *Procedia: Social and Behavioral Sciences*, 66, 555-563. doi:10.1016/j.sbspro.2012.11.300
- Harmer, J. (2007). *How to Teach English*. Harlow, England: Pearson Education Limited.
- Mackey, A., & Gass, S. (2005). *Second Language Research: Methodology and Design*. Mahwah, NJ: Lawrence Erlbaum Associates
- Nation, P. (2009). *Teaching ESL/EFL Reading and Writing*. New York: Routledge.
- Naeimi, M., & Chow, T. (2015). Vocabulary Acquisition through Direct and Indirect Learning Strategies. *English Language Teaching*, 8(10), 142-151. doi:10.5539/elt.v8n10p142
- Olmez, F. (2016). Exploring the Interaction of L2 Reading Comprehension with Text- and Learner-related Factors. *Procedia: Social and Behavioral Sciences*, 232, 719-727. doi:10.1016/j.sbspro.2016.10.09
- Oslund, E. & Elleman, A. (2019). Reading Comprehension Research: Implications for Practice and Policy. *Policy Insights from the Behavioral and Brain Sciences*, 6(1), 3-11. <https://doi.org/10.1177/2372732218816339> journals.sagepub.com/home/bbs
- Wright, T. S., & Cervetti, G. N. (2017). A systematic review of the research on vocabulary instruction that impacts text comprehension. *Reading Research Quarterly*, 52(2), 203-226. <https://doi.org/10.1002/rrq.163>
- Zucker, T. Cabell, S., & Pico, D. (2021). Going Nuts for Words: Recommendation for Teaching Young Students Academic Vocabulary. *The Reading Teacher*, 74(5), 581-594. doi: 10.1002/trtr.1967