

# Relationship of Vocabulary Knowledge with Reading Comprehension of Undergraduate Level Pakistani EFL Learners in Khyber Pakhtunkhwa

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## Abstract

Vocabulary knowledge plays an important role in successful reading comprehension. This study aimed at exploring the relationship between vocabulary knowledge and reading comprehension gains of undergraduate level Pakistani EFL learners in the selected public sector universities of Khyber Pakhtunkhwa. In addition, the study also investigated the strength of association between their vocabulary knowledge and reading comprehension gains. The sample of the study consisted of 300 undergraduate students, selected from six public sector universities. Pearson's Correlation, ANOVA, and descriptive statistics were run to analyze data. Results revealed statistically significant correlation between vocabulary knowledge and reading comprehension skills of these learners. The strength of association was found to be medium or typical according to Cohen's (1988) guidelines. Results also revealed statistically significant difference in the reading comprehension skills between male and female participants. Both these groups do not differ on vocabulary knowledge. Findings of this study provided important insights and empirical evidence about Pakistani L2 learners' vocabulary knowledge and its role in their reading comprehension abilities. Findings of the study have important implication for developing effective materials and pedagogies for L2/EFL learners in Pakistan.

**Keywords:** EFL learners, Knowledge, Pakistan, Reading Comprehension, Vocabulary.

## Introduction

English language has recently acquired the status of academic lingua franca, and it is widely used as the medium of instruction in many countries around the world. The significance of English in the realms of higher education and inter-cultural communication is unparalleled and apparent in countries where English is not the primary language (Bhatt et al., 2022;

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Alhasnawi et al., 2024). It is crucial for achieving academic success in all areas of study. Broughton et al. (2002) asserted that English is the primary language for modern education due to factors such as colonization, its status as the language of scientific literature, and its extensive global influence. English is a subject of ongoing discussion in Asia over its position and function (Kachru, 1997). However, it remains very significant in academic and communication contexts within multilingual Asian societies, including Pakistan.

Learning English as a foreign language is challenging due to its intricate nature (Miccoli et al., 2020). The atypical grammatical patterns, diverse word etymology, challenging pronunciation, and idiomatic expressions of English contribute to the arduousness of the learning process. Proficiency in language is crucial for effective communication, social interaction, and achieving success in academic and professional endeavors (Brown, 2004). Due to its position as the primary global language, learning English is not only beneficial but also unavoidable (Kurniasih, 2011). However, acquiring mastery of the English language can be a challenging endeavor for individuals who are not native speakers.

Language proficiency refers to an individual's cognitive abilities, knowledge, and skills in a particular language (Hulstijn, 2007). It is a step-by-step process that gradually builds upon previous progress. Due to limited linguistic input and minimal exposure to English outside the classroom, EFL learners face challenges in achieving proficiency in the language (Cameron, 2001). Fluency in English is a pre-requisite for achieving high academic success. As learners progress in their education, the demand for their English language ability also increases. From everyday classroom activities to evaluating their knowledge through a variety of aptitude exams, the importance of English is unquestionable. Although English has a significant role in the academic performance of learners, many EFL/L2 learners lack the expected or required level of language proficiency (Weideman & Rensburg, 2002). Success in acquiring proficiency in English is often associated with the ways English is taught in many EFL/L2 contexts.

The teaching of English language is intricate and requires methods that are adaptable and flexible (Renandya & Widodo, 2016). The instruction of English as a second language to individuals who are not native speakers entails additional complexity (McKay, 2012). Doman (2014) characterizes the process of teaching English as perplexing due to the various perspectives on teaching approaches and the numerous factors that influence the learning process. Nation (2008) highlights the significance of all four linguistic skills in the instruction and acquisition of the English

language. Asian countries are making efforts to enhance the efficiency of English language instruction, recognizing its significance in the academic domain (Kam, 2002). According to Andrade (2009), inadequate proficiency in the English language has a detrimental effect on the academic achievements of overseas students. Rose et al. (2020) have determined that English language abilities can be used to predict academic performance. The understanding of the adaptability of English language teaching is still inadequate (Marlina & Giri, 2014).

Listening and reading are considered receptive skills, while speaking and writing are considered productive abilities (Burns & Siegel, 2018). Proficiency in all aspects of language is crucial while acquiring English as a second language. Hinkel (2006) proposes that to achieve a more proficient grasp of the language, it is advisable to teach all linguistic skills concurrently. Developing proficiency in language ultimately results in mastery of the language (Jing, 2006). The four linguistic skills are interconnected. (Ayodgan & Akbarov, 2014).

Vocabulary, also known as word knowledge, refers to the collection of words that an individual possesses in a specific language, along with their corresponding meanings. The acquisition and understanding of vocabulary play a vital role in the process of learning and comprehending a language (Selinker & Gass, 2008). Effective language use necessitates a substantial lexicon (Schmitt, 2010). The word knowledge of an EFL learner is tightly linked to all four language abilities. Knowledge is mostly obtained through receptive skills, such as reading and listening, while it is essential for the production of writing and speaking abilities. Enhancing one's vocabulary improves both communication skills and academic success. Zimmerman and Schmitt (2005) perceive the acquisition of new vocabulary as a complex undertaking. Bogaards and Laufer (2004) assert that acquiring vocabulary in a second language can be a daunting endeavor. Having an extensive vocabulary is advantageous as it enables one to speak with fluency and confidence, not only in their original language or L1, but also in a second language or L2 that they have learnt. The acquisition of vocabulary is particularly crucial for EFL learners who possess limited word knowledge while having undergone years of formal schooling (Hunt & Beglar, 2005).

The significance of the correlation between vocabulary and reading comprehension has been deemed crucial by numerous academics over the past three decades. However, there is a scarcity of research studies investigating the association between the two components of language learning. In order to thrive in contemporary society, EFL learners must

acquire a substantial vocabulary. It aids individuals in developing proficiency in language usage, as well as in comprehending and deducing the precise meaning of a given text. The primary objective of the present study was to investigate the correlation between the vocabulary knowledge and reading comprehension abilities of undergraduate level Pakistani students who are learning English as a foreign language.

## **Research Questions**

The present study attempted to explore the following research questions:

- i. Is there any association between the vocabulary knowledge and reading comprehension of undergraduate level Pakistani EFL learners?
- ii. What is the strength of association between vocabulary knowledge and reading comprehension of Pakistani undergraduate level EFL learners?
- iii. Is there any statistically significant difference between male and female participants in terms of their reading comprehension and vocabulary knowledge scores?

## **Literature review**

Proficiency in English language is essential in today's world to thrive, excel, and succeed in the academic sphere. The linguistic proficiency of international English learners is of paramount importance. Mastery of the four language skills, namely listening, reading, speaking, and writing, is a fundamental prerequisite for all learners of English as a foreign language. These skills are interconnected and rely heavily on learners' vocabulary proficiency. According to Canagarajah (2007), language competency is determined by regular application, adjustment, and development of language skills. According to Ybarra and Green (2003), acquiring proficiency in any language is a challenging endeavor that requires extensive language support for learners. Proficiency in English is crucial for achieving academic success in higher education. Bayliss and Raymond (2004) investigated overseas students enrolling in professional courses in Canada, which demonstrated the substantial impact of L2 competency on academic achievement. Language proficiency plays a significant role in second language acquisition research (Graham, 1994).

Academic achievement has been reported to be linked with language proficiency. Elder et al. (2007) assert that linguistic proficiency plays a crucial role in achieving academic achievement. A study conducted by Fakeye and Ogunsiji (2009) on Nigerian EFL students revealed that language ability strongly correlates with academic achievement among

senior secondary school pupils. A study conducted by Sahragard et al. (2011) on Iranian EFL students revealed a strong link between language proficiency and academic accomplishments. Hasan and Akhand (2014) discovered a notable correlation between language proficiency and academic achievement in their study on Bangladeshi EFL students. Language proficiency is greatly influenced by the language abilities of the learners, especially their vocabulary.

Vocabulary refers to the comprehensive collection of words that an individual possesses and is able to use effectively in a specific language. Vocabulary acquisition is a multifaceted and extremely significant process (Pythian-Sence & Wagner, 2007). The level of vocabulary knowledge is closely linked to one's proficiency in a language (Schmitt, 2010). An extensive L2 lexicon is advantageous since it enhances fluency and facilitates effective communication in a second language. The significance of L2 vocabulary acquisition is vital in language proficiency as a solid command of vocabulary is essential for acquiring proficient language abilities. For L1 learners, vocabulary is acquired effortlessly from their local environment and community, while for L2 learners, deliberate efforts such as extensive reading or vocabulary learning strategies are required to gain vocabulary. In his work, Read (2000) highlights the importance of acquiring a comprehensive comprehension of words in order to achieve a high level of expertise in word knowledge. Effective vocabulary acquisition can only occur when all individuals involved in the learning process, including students, teachers, material writers, and researchers, actively support and facilitate it (Schmitt, 2008, p. 329). While it is crucial to become proficient in the skill of acquiring a second language, the methods for attaining a strong vocabulary remain uncertain. Occasionally, the process occurs unconsciously, such as when engaging in leisurely reading, viewing films, playing digital games, or listening to music in a second language. This phenomenon can be classified as accidental learning due to its unintentional nature. Intentional or guided vocabulary learning refers to the act of acquiring words with the end purpose of expanding one's vocabulary, whether it takes place in a classroom or outside of it. Both learners and teachers are uncertain about the most effective approach or strategy for efficiently and productively learning vocabulary. It is not simply about acquiring the words and their meanings, but rather about mastering the skill of employing those words appropriately in context and retaining them in memory.

An essential factor in building vocabulary is the proportion of the total number of words that a learner should be familiar with in any written or spoken communication. Prior studies believed the value to be 95%,

however, recent research indicates that it is actually 98%. In their study, Nation (2006) determined that a minimum of 6000-7000 word families is necessary for comprehending the conversation in a given language. For verbal communication, a person needs to have a grasp of approximately 3000 word families. However, for written communication, it is necessary to master around 8000-9000 word families. Acquiring this extensive vocabulary is not possible through casual learning or communication alone. Acquiring a comprehensive understanding of the vocabulary learning process is essential for instructors, learners, and material developers in order to achieve the objective of proficient reading and writing in the target language. The learners' willingness and motivation are crucial factors in achieving this objective.

According to Fisher and Frey (2009), vocabulary is crucial for all types of learning. When learners have a strong grasp of a term, they also have the ability to comprehend the associated notion. Vocabulary has a crucial and essential function in reading. Fluent reading can only be achieved if the reader has a comprehensive knowledge of a wide range of words. By utilizing their extensive vocabulary, learners have the ability to construct meanings not only at the lexical level, but also on a more advanced level. The process of extracting the intended significance from a given text is referred to as reading comprehension. Extensive research has consistently confirmed that a strong vocabulary has a fundamental and enduring influence on one's ability to understand written text. Put simply, the extent of one's vocabulary is the most accurate indicator of their reading comprehension ability.

However, a primary obstacle to reading for EFL learners is a deficiency in vocabulary. According to Cain and Oakhill (2014), reading cannot occur without adequate word knowledge. Determining the vocabulary size of learners can assist in the design of reading courses due to the significant role vocabulary plays in reading comprehension (Laufer & Aviad-Levitzky, 2017). Greater proficiency in vocabulary enhances reading comprehension of a given book. According to Perfetti and Stafura (2014), word knowledge is considered to be essential for reading comprehension. According to Staehr (2008), examining one's vocabulary knowledge can be used to assess their reading comprehension. Enhancing one's vocabulary leads to improved reading comprehension, as demonstrated by Schmitt et al. (2011). Cromley and Azevedo (2007) propose that vocabulary knowledge is the relevant knowledge for reading comprehension. Comprehension arises from the multitude of underlying reading processes (Perfetti et al., 2013). Engaging in reading leads to the acquisition of vocabulary, which in turn ensures a higher level of

understanding when reading various materials. Schmitt (2019) contends that textbooks largely neglect the vocabulary acquisition component of language learning, and if addressed at all, it is done in a disorganized manner. He suggests that vocabulary assessment can be beneficial for identifying strategies to optimize language development.

When it comes to a person's first language, they naturally learn vocabulary from their immediate environment and community, as well as from reading in their native language. However, learning vocabulary in L2 requires a deliberate effort. Increased exposure and input of the target language leads to a greater acquisition and expansion of vocabulary (Schmitt, 2010). According to Harmon and Wood (2018), teaching vocabulary mostly leads to improved reading comprehension. The level of one's vocabulary is closely linked to their skill in a language (Schmitt, 2010). Put simply, the extent of one's vocabulary is the most accurate indicator of their reading comprehension ability. According to Cain and Oakhill (2014), reading cannot occur without adequate word knowledge. The link between vocabulary and reading comprehension is important and has a significant impact on the linguistic ability of EFL/L2 learners (Dong et al., 2020).

The correlation between reading comprehension and vocabulary knowledge has been extensively investigated in many EFL contexts, but not very robustly in Pakistani EFL context. Many researchers have discovered that strong vocabulary knowledge is a reliable indicator of enhanced reading comprehension and overall reading proficiency among learners. No comprehensive research has been conducted in Pakistan to investigate this particular relationship. The present study aimed to contribute to showing the importance of vocabulary knowledge in successful reading comprehension, especially for students enrolled in public sector universities in Khyber Pakhtunkhwa. The purpose of this study was to address the lack of research in this specific area.

## **Methodology**

This study was quantitative and correlational in nature. It sought to investigate the correlation between vocabulary knowledge and reading comprehension among Pakistani EFL/L2 English learners in Khyber Pakhtunkhwa.

## **Population and Sampling Procedures**

The population of this study was undergraduate level Pakistani students who were learning English as a foreign language in the public sector universities in Pakistan, specifically in the province of Khyber

Pakhtunkhwa. The study included a sample of 300 undergraduate students—50 students (25 students male and 25 female) of BS English degree program were selected from each of the six selected public sector universities, i.e., University of Peshawar, Hazara University Mansehra, Abbottabad University of Science and Technology, Abbottabad (AUST), Abdul Wali Khan University, Mardan (AWKUM), University of Swat, and University of Malakand. For the selection of the sample, the researchers employed non-random, purposive, and convenient sampling procedures.

### **Data Collection Procedures**

WAT (Word Associates Test), developed by Read (1998), was used to assess participants vocabulary knowledge. Prior to choosing WAT, the researchers thoroughly examined multiple standardized vocabulary assessment tests. This specific test was chosen since it is the most prevalent method for evaluating the extent of one's vocabulary knowledge, both breadth and depth (Batty, 2012). Researchers from around the world have confirmed the test's validity and its suitability for assessing vocabulary depth (Qian, 2002). Two sample reading passages from TOEFL iBT were selected and used to assess the reading comprehension skills of the participants. Both tests were administered by the principal investigator in all the selected universities.

### **Data Analysis Procedures**

Following the collection and scoring of both tests, data was coded and descriptive statistics, scatter plot, Pearson correlation, and ANOVA were run to analyze data. Descriptive statistics were employed to assess the normal distribution of data and check assumptions. Pearson correlation coefficient was employed to determine the association between vocabulary knowledge and reading comprehension scores. The ANOVA test was employed to examine differences in scores for both vocabulary knowledge and reading comprehension gains by male and female participants.

### **Results**

The primary research objective of the study was to investigate the correlation between the vocabulary knowledge and reading comprehension skills of Pakistani undergraduate students, studying English as a foreign language. Pearson correlation was computed by running the parametric statistical test Pearson product moment correlation to see whether or not there is any relationship between the participants' vocabulary knowledge and their reading comprehension scores. Results of the statistical test Pearson's correlation are displayed in Table 1. While examining the descriptive statistics, the average score for the Word



Associates Test (WAT) was found to be 28.30 and the average score for reading comprehension to be 25.56. The Pearson correlation coefficient,  $r(298) = .34, p = .000$  was found to be .34.

**Table 1 Correlations between Vocabulary knowledge and reading comprehension skills**

		WAT Score	Reading Comp Score
WAT Score	Pearson Correlation	1	.338
	Sig. (2-tailed)		.000
Reading Comprehension	Pearson Correlation	.338	1
	Sig. (2-tailed)	.000	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N = 300

Results in Table 1 indicated a statistically significant positive association between vocabulary knowledge and reading comprehension scores of the participants of the study, as can be seen from the p-value of .000 and a correlation coefficient of 0.34. Individuals who possess a strong command of word knowledge or vocabulary are more likely to have enhanced reading comprehension skills, and the opposite is also true.

Pearson's correlation coefficient was computed and analyzed, using Cohen's (1988) guidelines, to find out the degree (strength) of correlation between the participants' vocabulary knowledge and their reading comprehension skills. Results are presented in Table 2 below:

**Table 2 Strength of association between vocabulary knowledge and reading comprehension skills**

		WAT Score	Reading Comp Score
WAT Score	Pearson Correlation	1	.338
	Sig. (2-tailed)		.000
Reading Comprehension	Pearson Correlation	.338	1
	Sig. (2-tailed)	.000	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## b. Listwise N = 300

Results indicated that the Pearson Correlation coefficient was 0.34, which is a little more than what is considered medium or typical (i.e., 0.30) according to Cohen (1988). Thus, the strength of the positive correlation between vocabulary knowledge and reading comprehension scores of the participants was found to be medium.

The third research question of the study aimed at finding out statistically significant difference in vocabulary knowledge and reading comprehension gains between male and female participants. Two One-Way ANOVAs were run at a time for each of the two dependent variables to answer this question. ANOVA is a statistical procedure, used to assess the variability in average scores between or among various groups. The ANOVA results are displayed in Table 3.

**Table 3 Analysis of difference in vocabulary knowledge and reading comprehension scores of female and male participants**

Variables	Mean	SSq	df	MSq	F	Sig.
WAT	28.02	-	-	-	-	-
Score	28.61	-	-	-	-	-
Between		26.232	1	26.232	1.640	.201
Groups						
Within		4767.165	298	15.997		
Groups						
Total		4793.397	299			
Reading	24.71	-	-	-	-	-
Compre-	26.49	-	-	-	-	-
hension						
Score						
Between		239.368	1	239.368	7.516	.006
Groups						
Within		9490.429	298	31.847		
Groups						
Total		9729.797	299			

Analysis of the mean scores of male and female students and results of ANOVA indicated that female students scored slightly higher than male participants on the Word Associates Test (WAT) but there was no statistically significant difference in scores of both groups on WAT as  $F(1,$

298) = 1.64,  $p = .201$ . However, analysis of mean scores of male and female participants on reading comprehension test showed that female participants scored higher than the male students and statistically significant difference was found between the two gender groups as  $F(1, 298) = 7.516$ ,  $p = .006$ . All this indicates that both male and female Pakistani undergraduate level students have almost the same level of vocabulary knowledge, but female students have better reading comprehension skills than male students.

## Discussion

The current study attempted to explore the relationship between vocabulary knowledge and reading comprehension of undergraduate EFL learners in selected universities of Khyber Pakhtunkhwa. The relationship between vocabulary knowledge, the two components of vocabulary knowledge, i.e., depth and breadth, and reading comprehension has been extensively studied worldwide in a variety of contexts and at various levels (Nation, 2001; Koda, 1989). Extensive research on vocabulary knowledge demonstrates that learners' reading comprehension skills are greatly enhanced by their extensive vocabulary knowledge. Studies reveal that expanding one's vocabulary enhances one's ability to comprehend more successfully, and that there is a strong correlation between a learner's vocabulary knowledge and reading comprehension (Kim & Cho, 2015; Rashidi & Khosravi, 2010; Rahman & Iqbal, 2019). Researchers have been examining the relationship and degree of correlation between various facets and constituents of vocabulary knowledge and reading comprehension skills. Analysis of the results of the current study reflect the presence of moderate correlation between vocabulary knowledge and reading comprehension skills of Pakistan EFL learners, studying at the undergraduate level. Results of Pearson correlation reveal the presence of significant and positive correlation between vocabulary knowledge and reading comprehension abilities ( $r=0.34$ ,  $p=0.000$ ). This suggests that good vocabulary knowledge is helpful in making comprehension better and easier for learners. Numerous research (Nation, 2001; Rahman & Iqbal, 2019; Huang, 1997; Furqon, 2013) have found a positive association between vocabulary knowledge and reading comprehension, which is supported by the current study's findings.

Researchers have also been investigating the degree of strength of correlation between vocabulary knowledge and reading comprehension. Low, moderate and high positive correlation have been reported between vocabulary knowledge and reading comprehension by various researchers (Zhano & Phatudi, 2019; Harkio & Pietila, 2016). This study, after finding

positive correlation between vocabulary knowledge and reading comprehension, attempted to explore the strength of this correlation. As the analysis of results reveal that there is a moderate positive correlation between vocabulary knowledge and reading comprehension of undergraduate level Pakistani EFL students. This strength of association between vocabulary knowledge and reading comprehension skills shows the practical and pedagogical value of the findings of the study and contribution to the existing body of scholarly literature in L2 and/or EFL contexts. In order to improve reading comprehension skills of EFL learners in Pakistan, teachers must focus on the vocabulary knowledge development of students. Similarly, engaging students in reading provides students with the opportunity to improve their vocabulary knowledge.

Different factors like academic fields, gender, and education level etc. are responsible for differences in reading comprehension abilities and vocabulary knowledge levels of English learners in different contexts. Gender is one of the important factors that has been the focus of L2 researchers. Various researchers have pointed out gender-based differences in reading comprehension and vocabulary knowledge (Alsowat, 2022; Ahmadi & Mansoordehghan, 2012). This study also focused on finding out the differences between male and female students in terms of their reading comprehension skills and vocabulary knowledge. Analysis of the results indicate no statistically significant difference between male and female students in terms of their vocabulary knowledge; however, female students outperformed male students in terms of reading comprehension.

## **Conclusion**

The objective of this study was to find out association between vocabulary knowledge and reading comprehension abilities of undergraduate Pakistani EFL learners. Analyses of the results of this study demonstrate that large vocabulary plays a vital role in understanding any material. Hence, the significance of strong vocabulary knowledge is multifaceted when it comes to achieving academic success. Reading fluency and success in reading comprehension are dependent upon the readers' extensive and strong knowledge of words, which can only be attained through large amount of reading. EFL learners worldwide, including those in Pakistan, face a significant disadvantage due to a lack of concentrated efforts to improve their vocabulary proficiency. Mastering English language is a challenging endeavor that demands significant dedication and exertion from the learner. It is imperative for educators, curriculum developers, and researchers to acknowledge the significance of vocabulary in language acquisition and ensure its proper inclusion in English curricula at different levels.

Based on the findings of the presents study, certain implications can be drawn. To assist students in overcoming their lack of vocabulary knowledge, they should be instructed on the utilization of effective vocabulary learning strategies. It is recommended that educators motivate students to employ suitable reading strategies when perusing English texts. Furthermore, it is imperative that instructors introduce students to vocabulary that is frequently employed in academic contexts. In particular, teachers can introduce students to authentic materials for implicit vocabulary instruction, such as reading English stories and novels, exposure to English movies and songs, and English newspapers.

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## References

- Ahmadi, A., & Mansoordehghan, S. (2012). Comprehending a non-text: A study of gender-based differences in EFL reading comprehension. *Journal of Language Teaching & Research*, 3(4).
- Alhasnawi, S., Uysal, H. & Selvi, B. (2023). English as the Academic Lingua Franca (ELFA) for research publication purposes: voices from Iraq and Turkey. *Journal of English as a Lingua Franca*, 12(2), 183-217. <https://doi.org/10.1515/jelf-2023-2014>
- Alsowat, H. (2022). The mediating roles of gender and academic field in the relationship between vocabulary knowledge and reading comprehension of EFL students. *Universal Journal of Educational Research*, 10(2), 146-159.
- Andrade, M. S. (2009). The effects of English language proficiency on adjustment to university life. *International Multilingual Research Journal*, 3(1), 16-34.
- Aydoğan, H., & Akbarov, A. A. (2014). The four basic language skills, whole language & integrated skill approach in mainstream university classrooms in Turkey. *Mediterranean Journal of Social Sciences*, 5(9), 672-672.
- Batty, A. (2012). Identifying dimensions of vocabulary knowledge in the word associates test. *Vocabulary Learning and Instruction*, 1(1), 70-77.
- Bayliss, D., & Raymond, P. (2004). The link between academic success and L2 proficiency in the context of two professional programs. *Canadian Modern Language Review*, 61(1), 29-53.

- Bhatt, I., Badwan, K., & Madiba, M. (2022). Critical perspectives on teaching in the multilingual university. *Teaching in Higher Education*, 27(4), 425–436.  
<https://doi.org/10.1080/13562517.2022.2058295>
- Bogaards, P., & Laufer, B. (Eds.). (2004). *Vocabulary in a second language: Selection, acquisition, and testing (Vol. 10)*. John Benjamins Publishing.
- Broughton, G., Brumfit, C., Pincas, A., & Wilde, R. D. (2002). *Teaching English as a foreign language*. Routledge.
- Brown, C. L. (2004). Content based ESL curriculum and academic language proficiency. *The Internet TESL Journal*, 10(2), 1-6.
- Burns, A., & Siegel, J. (Eds.). (2018). *International perspectives on teaching the four skills in ELT: Listening, speaking, reading, writing*. Palgrave Macmillan.
- Cain, K., & Oakhill, J. (2014). Reading comprehension and vocabulary: Is vocabulary more important for some aspects of comprehension? *L'Annee Psychologique*, 114(4), 647-662.
- Cameron, L. (2001). *Teaching languages to young learners*. Cambridge University Press.
- Canagarajah, S. (2007). Lingua franca English, multilingual communities, and language acquisition. *The Modern Language Journal*, 91, 923-939.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Cromley, J. G., & Azevedo, R. (2007). Testing and refining the direct and inferential mediation model of reading comprehension. *Journal of educational psychology*, 99(2), 311.
- Doman, E. (Ed.). (2014). *Insight into EFL teaching and issues in Asia*. Cambridge Scholars Publishing.
- Dong, Y., Tang, Y., Chow, B. W. Y., Wang, W., & Dong, W. Y. (2020). Contribution of vocabulary knowledge to reading comprehension among Chinese students: A meta- analysis. *Frontiers in Psychology*, 11, 1-15.
- Elder, C., Bright, C., & Bennett, S. (2007). The role of language proficiency in academic success: perspectives from a New Zealand university. *Melbourne Papers in Language Testing*, 12(1), 24-28.
- Fakeye, D. O., & Ogunsiji, Y. (2009). English language proficiency as a predictor of academic achievement among EFL students in Nigeria. *European Journal of Scientific Research*, 37(3), 490-495.
- Fisher, D., & Frey, N. (2009). *Background knowledge. The missing piece of the comprehension puzzle*: Heinemann.

- Furqon, F. (2013). Correlation between students' vocabulary mastery and their reading comprehension. *Journal of English and Education, 1*(1), 68-80.
- Graham, J.C. (1987). English language proficiency and the prediction of academic success. *TESOL Quarterly, 21*, 505-521.
- Harkio, N., & Pietilä, P. (2016). The role of vocabulary breadth and depth in reading comprehension: A quantitative study of Finnish EFL learners. *Journal of Language teaching and research, 7*(6), 1079.
- Harmon, J., & Wood, K. (2018). The vocabulary-comprehension relationship across the disciplines: Implications for Instruction. *Education Sciences, 8*(3), 101.
- Hasan, M. K., & Akhand, M. M. (2014). EFL students' English language proficiency and their academic achievement. *ABAC Journal, 34*(2), 64-70.
- Hinkel, E. (2006). Current perspectives on teaching the four skills. *TESOL Quarterly, 40*(1), 109-131.
- Huang, T. L. (1997). On the importance of emphasizing vocabulary teaching. In *Proceedings of the 6th International Symposium on English Teaching*, 322-331, Taipei: Crane Publishing.
- Hulstijn, J. H. (2007). The shaky ground beneath the CEFR: Quantitative and qualitative dimensions of language proficiency. *The Modern Language Journal, 91*(4), 663-667.
- Hunt, A., & Beglar, D. (2005). A framework for developing EFL reading vocabulary. *Reading in a foreign language, 17*(1), 23-59.
- Jing, W. U. (2006). Integrating skills for teaching EFL—Activity design for the communicative classroom. *Sino-US English Teaching, 3*(12), 122-133.
- Kachru, B. B. (1997). World Englishes and English-using communities. *Annual Review of Applied Linguistics, 17*, 66-87.
- Kam, H. W. (2002). English language teaching in East Asia today: An overview. *Asia Pacific Journal of Education, 22*(2), 1-22.
- Kim, J., & Cho, Y. (2015). Proficiency effects on relative roles of vocabulary and grammar knowledge in second language reading. *English Teaching, 70*(1), 75-96.
- Koda, K. (1989). The effects of transferred vocabulary knowledge on the development of L2 reading proficiency. *Foreign Language Annals, 22*(6), 529-540.
- Kurniasih, E. (2011). Teaching the Four Language Skills in Primary EFL Classroom. *JET (Journal of English Teaching), 1*(1), 70-81.
- Laufer, B., & Aviad-Levitzky, T. A. M. I. (2017). What type of vocabulary knowledge predicts reading comprehension: Word

- meaning recall or word meaning recognition? *The Modern Language Journal*, 101(4), 729-741.
- Manihuruk, D. H. (2020). The Correlation between EFL students' vocabulary knowledge and reading comprehension: A case study at the English Education Department of Universitas Kristen Indonesia. *Journal of English Teaching*, 6(1), 86-95.
- Marlina, R. (2018). Revisiting the pedagogy of English as an international language. *RELC Journal*, 49(1), 3-8.
- McKay, S. L. (2012). Principles of teaching English as an international language. In *Principles and practices for teaching English as an international language* (pp. 28-46). Routledge.
- Miccoli, L., Bambilra, R., & Vianini, C. (2020). Experiential research for understanding the complexity of teaching and learning English as a foreign language. *Ilha do Desterro*, 73, 19-42.
- Nation, I. S. (2008). *Teaching ESL/EFL reading and writing*. Routledge.
- Nation, P. (2001). *Learning vocabulary in another language*. Cambridge University Press.
- Nation, P. (2006). How large a vocabulary is needed for reading and listening? *The Canadian Modern Language Review*, 63(1), 59-81.
- Perfetti, C., Stafura, J., & Adlof, S. (2013). Reading comprehension and reading comprehension problems: A word-to-text integration perspective. In Miller, B., L. Cutting, & P. McCardle (Eds.) *Unraveling Reading Comprehension: Behavioral Neurobiological, and Genetic Components of Reading Comprehension* (pp. 22-32). Paul H. Brookes Publishing Co., Inc.
- Perfetti, C., & Stafura, J. (2014). Word knowledge in a theory of reading comprehension. *Scientific studies of Reading*, 18(1), 22-37.
- Phythian-Sence, C., & Wagner, R. K. (2007). Vocabulary acquisition: A primer. In R. K. Wagner, A. E. Muse, & K. R. Tannenbaum (Eds.), *Vocabulary acquisition: Implications for reading comprehension* (pp. 1-14). The Guilford Press.
- Qian, D. D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning*, 52(3), 513-536.
- Rahman, Z. U., & Iqbal, Z. (2019). Relationship of Breadth and Depth of Vocabulary Knowledge and Reading Comprehension in Learning English. *Bulletin of Education and Research*, 41(3), 89-100.
- Rashidi, N., & Khosravi, N. (2010). Assessing the role of depth and breadth of vocabulary knowledge in reading comprehension of Iranian EFL learners. *Journal of Pan-Pacific Association of Applied Linguistics*, 14(1), 81-108.
- Read, J. (2000). *Assessing Vocabulary*. Cambridge University Press.



- Renandya, W. A., & Widodo, H. P. (Eds.). (2016). *English language teaching today: Linking theory and practice (Vol. 5)*. Springer.
- Rose, H., Curle, S., Aizawa, I., & Thompson, G. (2020). What drives success in English medium taught courses? The interplay between language proficiency, academic skills, and motivation. *Studies in Higher Education, 45*(11), 2149-2161.
- Sahragard, R., Baharloo, A., & Soozandehfar, S. M. A. (2011). A Closer Look at the Relationship between Academic Achievement and Language Proficiency among Iranian EFL Students. *Theory & Practice in Language Studies, 1*(12).
- Schmitt, N. (2008). Instructed second language vocabulary learning. *Language teaching research, 12*(3), 329-363.
- Schmitt, N. (2010). *Researching vocabulary: A vocabulary research manual*. Palgrave Macmillan.
- Schmitt, N. (2019). Understanding vocabulary acquisition, instruction, and assessment: A research agenda. *Language Teaching, 52*(2), 261-274.
- Schmitt, N., Jiang, X., & Grabe, W. (2011). The percentage of words known in a text and reading comprehension. *The Modern Language Journal, 95*(1), 26-43.
- Selinker, L., & Gass, S. M. (2008). *Second language acquisition*. Lawrence Erlbaum Ass.
- Staehr, L. (2009). Vocabulary knowledge and advanced listening comprehension in English as a Foreign Language. *Studies in Second Language Acquisition, 31*(1), 1-31.
- Weideman, A., & Van Rensburg, C. (2002). Language proficiency: Current strategies, future remedies. *Journal for Language Teaching, 36*(1-2), 152-164.
- Ybarra, R., & Green, T. (2003). Using technology to help ESL/EFL students develop language skills. *The Internet TESL Journal, 9*(3), 1-5.
- Zano, K., & Phatudi, N. (2019). Relationship between vocabulary knowledge and reading comprehension of South African EFAL high school learners. *Per Linguam, 35*(3), 16-28.
- Zimmerman, C. B., & Schmitt, N. (2005). Lexical questions to guide the teaching and learning of words. *The CATESOL Journal, 17*(1), 164-170.