

# THE CORRELATION BETWEEN READING STRATEGIES AND READING COMPREHENSION

HUBUNGAN ANTARA STRATEGI MEMBACA DAN PEMAHAMAN MEMBACA

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# ABSTRACT

Reading English texts remains a persistent issue for learners who learn English as foreign language (EFL). The study aims to explore the reading strategies employed by EFL students in order to improve students' reading comprehension and to determine whether a significant correlation exists between reading strategies and reading comprehension. The study involved 60 participants from one senior high school in Batam, Indonesia. The study utilized Survey of Reading Strategies (SORS) and reading comprehension test. The Kolmogorov-Smirnov test was performed to determine the normality of the data distribution while Pearson correlation was utilized to investigate the interrelation among the variables. The results showed that students most commonly employed problem-solving strategies when reading and there was a significant correlation between reading strategies, including problem-solving strategies, support reading strategies, and global reading strategies, perform better on reading comprehension assessments. The study made a significant addition to the field of English language teaching by highlighting the need of raising EFL students' awareness and teaching students proper reading strategy for comprehending scholarly texts.

Keywords: metacognition, reading comprehension, reading strategies, survey of reading strategies

# ABSTRAK

Membaca teks Bahasa Inggris masih menjadi masalah bagi siswa yang mempelajari Bahasa Inggris sebagai bahasa asing. Penelitian ini bertujuan untuk mengeksplorasi strategi membaca yang digunakan oleh siswa untuk meningkatkan pemahaman membaca siswa dan untuk mengukur apakah ada hubungan yang signifikan antara strategi membaca dengan pemahaman membaca. Penelitian ini melibatkan 60 peserta dari salah satu sekolah menengah atas di Batam, Indonesia. Penelitian ini menggunakan Survey of Reading Strategies dan tes pemahaman membaca. Uji Kolmogrov-Smirnov dilakukan untuk mengetahui normalitas distribusi data, sedangkan uji korelasi Pearson digunakan untuk mengetahui keterkaitan antar variabel. Hasil penelitian menunjukkan bahwa siswa paling sering menggunakan strategi pemecahan masalah ketika membaca dan adanya korelasi yang signifikan antara strategi membaca dan pemahaman membaca, Hasil penelitian ini menunjukkan bahwa siswa yang menerapkan berbagai strategi membaca, termasuk strategi pemecahan masalah, strategi pendukung, serta strategi global, memiliki kemampuan yang lebih baik dalam pemahaman membaca. Studi ini memberikan masukan pada pengajaran Bahasa Inggris dan menyoroti perlunya meningkatkan kesadaran siswa akan strategi membaca serta melatih siswa dengan strategi membaca yang tepat dalam memamahi teks-teks ilmiah.

Kata kunci: metakognisi, pemahaman membaca, strategi membaca, survei strategi membaca

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### INTRODUCTION

Reading is often regarded as a crucial ability in the process of acquiring language proficiency. The students' academic progress and success are frequently linked to their reading proficiency. 'Reading is the ability to draw meaning from the printed page and interpret this information appropriately' (Grabe et al., 2002). By engaging in reading, students may acquire a comprehensive understanding of written content and the word meaning. Developing proficient reading skills enables individual to be an independent learner, achieve better in academic, and support the development of overall language proficiency (Komiyana, 2009). However, reading is seen as a multifaceted and protracted learning process that encompasses cognitive, linguistic, and metacognitive processes. Reading proficiency is not heritable, unlike the skills of speaking and listening.

The complexity of comprehending a text is particularly encountered by those who are non-native speakers of English, such as Indonesian learners of English as a foreign language. Typically, English reading is limited to academic settings such as language learning or for test purposes. Consequently, many students continue to face the issue The process of understanding an English text is a tough challenge due to several factors including lack of vocabulary, unfamiliarity with the topics and terms in the reading, prior knowledge about the text context, interest and motivation in reading. Taladngoen discovered two primary determinants that impact children' reading comprehension: internal elements including language expertise, background information, perception of reading challenges, and external ones involving instructors, family, and the environment (Taladngoen et al., 2020).

Effective reading strategies are a significant contributing factor to achieving high levels of reading comprehension. Reading techniques are crucial for helping learners overcome reading challenges such as inferring the underlying messages in the texts, dealing with unknown terms and unfamiliar cultural load (Gönen, 2015). Reading strategy is defined as the comprehension processes that readers use in order to make sense of what they read that categorized as approaches, actions, and procedures used to improve reading comprehension (Brantmeier, 2002). Reading strategies include affective strategy, elaboration strategy, monitoring strategy, and organizational strategy had close interactions and collaborations that contribute to text comprehension activities together (Sun et al., 2021). When learning English, reading comprehension typically requires the use of reading strategies to enhance students' reading abilities. The strategies facilitate the reader in developing a new understanding, enabling them to effectively grasp the content conveyed in the written text and establish effective communication with the author. Strategies such as skimming, scanning, predicting, and asking have been empirically demonstrated to enhance students' reading comprehension.

Survey of Reading Strategies (SORS) developed by Mokhtari and Sheorey is an instrument to measure reading strategies of adolescent and adult students who are learning English as a second or foreign language. SORS measures three main categories of reading strategies include Global Reading Strategies (GLOB), Problem-Solving Strategies (PROB) and Support Reading Strategies (SUP) (Mokhtari & Sheorey, 2002). The information obtained through SORS is helpful for both students and teachers. Through the completion of the survey, students increase their awareness of reading strategies, build their confidence in their own reading abilities, and improve their knowledge of the reading process. The information is beneficial for teachers in aiding their students to cultivate a reflective approach towards reading.

Global Reading Strategies (GLOB) often referred to as metacognitive strategies which involve planning how to read and effectively manage comprehension. Glob are deliberate, well-planned techniques through which learners can monitor and manage their reading, such as having purpose in mind, previewing the length and organization of text, or typographical aids and tables and figures. Metacognition strategies were initially introduced by Flavel, who characterized them as an individual's understanding of their own cognitive processes and outcomes, as well as everything associated with them (Flavell, 1979). In reading, metacognitive strategies are self-monitoring and self-regulating activities, focusing on both the process and the product of learning (Zhang & Seepho, 2013). Readers must possess metacognitive awareness in order to enhance their understanding and employ techniques to address reading challenges. Metacognition include three types of knowledge; (a) declarative (referring to the strategies used to learn), (b) procedural (steps to use the chosen strategies), and (c) conditional (when, where and why the chosen strategies are used instead of others), and its self-regulation through the processes of planning, selection of strategies, and evaluation of learning or monitoring (Ondé et al., 2022).

Problem-Solving Reading Strategies (PROB) often referred to as cognitive strategies which involve using strategies when reading difficult parts of the text. PROB refers to the strategies and techniques employed by readers while engaging directly with the text. The strategy, known as text comprehension, is employed to address difficulties that arise in comprehending the text. These strategies provide readers with a systematic approach to effectively skim through a text. They involve modifying the reading speed when encountering challenging or straightforward topics, inferring the meaning of unfamiliar terms, and re-reading the text to enhance understanding (Mokhtari & Sheorey, 2002).

Support Reading Strategies (SUP) are fundamental support mechanisms intended to assist the reader in understanding the text. The strategies involve the use of equipment, technique, and reference materials (e.g., using dictionaries), taking notes, underlining or circle information and other practical strategies. Translating from the target language into the native language also include in the strategy. These strategies provide support mechanisms designed to maintain reading responses.

The ability to understand a text is often associated with language proficiency, academic achievement, and learning success. Reading comprehension is the primary determinant of reading ability, particularly when engaging with academic materials. Reading comprehension refers to the capacity of readers to understand the surface and the hidden meanings conveyed in the text (Westwood, 2008). It helps the learners in the language acquisition process and read texts for different purposes. The process consists of two steps: recognizing the written symbol (words) and straightening the way of perception and internalization of the meaning (Qanwal & Karim, 2014). Reading comprehension is a flexible skill that varies depending on the specific goal for reading and the content of the material. Linguistic and intrapersonal intelligences, along with metacognitive and cognitive strategy, are among of some predictors of reading comprehension (Mirzaei et al., 2014). Hence, the primary objective in reading is to fully understand the text, which requires the utilization of metacognitive and cognitive and cognitive processes, as well as a range of skills and tactics.

Reading comprehension is complex skills that necessitates an engaged connection between the components of a text and the reader. Some factors that influence reading comprehension include prior knowledge, vocabulary, fluency, active reading abilities, and critical thinking (Arguedo et al., 2023). Students' internal factors such as linguistic knowledge, perceptions, and interest also play important role in reading comprehension ability. Insufficient familiarity with the reading material and a limited vocabulary might impede the ability of EFL students to understand the text in the target language (Taladngoen et al., 2020). To surmount the issues faced by EFL language learners, the utilization of reading methods may function as a crucial remedy and assist learners to cope with difficulties.

According to Brown and Abeywickrama, there are at least eight criteria commonly used in measuring students' reading comprehension ability in language testing (Brown & Abeywickrama, 2019) they are:

1) Main idea (topic)

It is important to find main idea when reading. The main idea can help readers remember important information. The main idea of the paragraph tells the topic of the paragraph. The topic explains what all or most of the sentences are about.

2) Expression/idiom/phrases in context

To find the meaning of expression/idiom/phrases in the text and replace it with the real meaning in the context.

3) Inference (implied detail)

This includes information that is not completely written in the text. Readers should construct their own perception about the text.

4) Grammatical features

To find the reference of pronoun.

5) Detail (scanning for a specifically stated detail)

To find specific information in the text such as names, dates, keywords.

6) Excluding facts not written (unstated detail)

It is to measure how cautious students find misinformation or undeclared information in the text. 7) Supporting ideas

The evidences or explanations that support the main idea.

8) Vocabulary in context

Refers to synonym or antonym of vocabulary that suitable with the context.

Previous studies have demonstrated the role reading strategies in EFL or ESL students' reading skill (Banditvilai, 2020; Kassem & Alqahtani, 2023; Kyung Ja Kim, 2015; Maeng, 2014; Ortega-Ruipérez, 2022; Yapp et al., 2023). While several studies explored additional variables impacting students' reading comprehension, they all have a consistent finding: reading strategy is the most reliable predictor of students' reading comprehension (Kassem & Alqahtani, 2023; Maeng, 2014). The studies also reported the role of effective reading strategies in enhancing students' reading comprehension including metacognitive strategies and cognitive strategies (Hasani & Pahamzah, 2022; Zhang & Sukying, 2022). Other common strategies such as skimming, scanning, and making predictions were reported to be beneficial for students in reading comprehension (Banditvilai, 2020). The studies reviewed highlighted the need of employing effective reading strategies to attain success in comprehending English texts. Studies suggested EFL teachers to maximize assistance in improving students' reading skill. This may be achieved by offering students effective reading strategies.

The investigation of reading strategies and its correlation to students' reading comprehension of Indonesian EFL adolescent leaners are still scarce. A similar study by Par focused the relationship between the use of reading strategies and reading achievement among Indonesian EFL learners who were majoring in English. The results revealed that the students were active strategy users and preferred the used of problem-solving strategy, and a significant correlation between reading strategies and reading achievement (Par, 2020). Another study by Amir focused on the contribution of reading strategies and reading frequencies toward students' reading comprehension skill. The result emphasized awareness of using reading strategies and employment appropriate and effective strategies while dealing with academic texts (Amir et al., 2019). Both studies were conducted in higher education indicated limited studies involving adolescents in Indonesia. To fill the gaps in literature, this study aimed to explore the type and frequency of reading strategies used by the students in reading comprehension and to examine the correlation between reading strategies and reading comprehension.

### MATERIAL AND METHODS

The present study employed a correlation design which investigated the correlational statistic to describe and measure the relationship between reading strategies and reading comprehension in EFL learning (Creswell & Creswell, 2018). The subject involved the tenth-grade students in one of Senior High Schools in Batam, Indonesia. From the total population of 340 students, 60 students were involved. Technique sampling utilized a nonprobability sample or convenience sample, whereby the selection of students was based on their convenience and availability (Creswell & Creswell, 2018).

Survey of Reading Strategies (SORS) developed by Sheorey and Mokhtari was adopted in the present study to probe readers' perceived use of reading strategies and the frequency of the use of reading strategies while reading English in academic context. SORS is appropriate to be used for adolescent and adult students whom English is a second or foreign language (Mokhtari & Sheorey, 2002). The SORS measures three categories of reading strategies; global reading strategies (GLOB)

consisted of 13 items, problem-solving strategies (PROB) consisted of 8 items, and support reading strategies (SUP) consisted of 9 items. Each item of the questionnaire has 5-point Likert scale to which students respond: I Always or almost always do this (5), I Usually do this (4), I Sometimes do this (3), I do this only occasionally (2), and I Never or almost never do this (1). The Cronbach Alpha reliability coefficient SORS instrument was 0.887 which can be considered as reliable.

In order to gain the students' reading comprehension, a reading test consisted of 35 items was constructed following indicators of reading comprehension test by Brown and Abeywickrama (2019) and administered to the students. A testing instrument was utilized to assess the validity and reliability of the reading test. The test was administered to a group of 35 students who have comparable features. The result of the validity test using Pearson Product Formula revealed 12 items were not valid as the r count < r table (r table = 0.339) while the 23 items were valid with r count > r table. From the 23 valid items, the researcher took 20 items as the reading comprehension test instrument based on the indicators. Three questions were removed because these questions had been represented by other items required in the test indicators. The Cronbach Alpha reliability coefficient of reading test was 0.701, which can be considered as reliable. Meanwhile, Kolmogorov-Smirnov was used to test the normality of data distribution. Finally, Pearson Correlation was used to determine the correlation between the two variables using SPSS Statistics 25.

# **RESULT AND DISCUSSION**

#### Students' reading strategy use

Once all the data had been analyzed, the researcher discovered and compiled a number of findings. First, Table 1 illustrates students' preference of reading strategies usage in reading academic materials. Level of students' reading strategy usage were identified according to SORS scoring guideline suggested by Oxford and Burry-Stock (Oxford & Burry-Stock, 1995). Mean of 3.5 or higher were categorized as high, mean of 2.5 to 3.4 were categorized as medium, and mean of 2.4 or lower were categorized as low level. Table 1 shows the distribution of means based on the three categories of SORS and total mean of strategy used by students regardless of their English proficiency. As shown in Table 1, the mean of reading strategies for all categories of all participants is moderate (3.36). Students' preference of strategy (3.3) and global reading strategy (3.26) in moderate level.

Reading strategy categories	Mean	Std.Deviation	Level	
Global reading strategies (GLOB)	3.26	1.18	moderate	
Problem solving strategies (PROB)	3.59	1.19	High	
Support strategies (SUP)	3.3	1.19	Moderate	
All	3.36	1.2	moderate	

Table 1. Distribution of means students' reading strategy categories (n=60)

Table 2 delineates the distribution of students' reading strategy usage based on SORS categories with means, standard deviations, and level of reading strategy usage. To illustrate how the data are distributed in relation to mean scores, standard deviations are provided. Table 2 shows of 13 items of global reading strategy, 3 are categorized as high level with the mean score 3,5 or more and 10 items are in moderate level. Problem-solving strategy appears to be the most preference by students and dominated high level usage of strategy. Of 8 items of Problem-solving strategy, 6 items are categorized as high level and 3 items are categorized as moderate. Meanwhile, support reading strategy appears to be the least used by the students, of 9 items of support reading strategy, only 2 strategies are categorized in high level usage and 7 items are in moderate level.

SORS Categories	Description of strategy	Mean	Std. Deviation	Level of reading strategy usage
Prob	Re-reading the text	4.13	1.07	
Glob	Previewing the text before reading	4.05	0.97	
Glob	Using prior knowledge	3.90	1.03	
Sup	Going back and forth to find the relationship of the ideas	3.90	1.08	
Prob	Reading slowly and carefully	3.82	1.20	C
Glob	Confirming the prediction	3.78	1.03	High
Prob	Paying closer attention to the text	3.73	1.15	
Prob	Trying to get back to the track	3.67	0.87	_
Prob	Guessing the meaning of unknown words	3.67	1.19	
SUP	Paraphrasing	3.62	1.24	
Prob	Pausing and thinking about reading	3.57	1.07	
Sup	Thinking about the information both in English and one's native language	3.43	1.07	
Glob	Checking understanding	3.42	1.11	
SUP	Reading aloud when text becomes difficult	3.40	1.08	
SUP	Underline or circle the information	3.32	1.24	
Glob	Guessing the content	3.28	1.20	_
Glob	Having a purpose for reading	3.25	1.06	_
Glob	Reviewing the text	3.23	1.12	
SUP	Asking oneself questions	3.23	1.20	te –
Glob	Analysing and evaluating the information critically	3.22	1.00	Moderate
SUP	Using reference materials (e.g. dictionary)	3.17	1.23	– <del>э</del> рс
Glob	Evaluating if the content fits to the reading purpose	3.10	1.26	ž
Prob	Visualizing the information	3.10	1.36	
Prob	Adjust the reading speed	3.07	1.21	_
Glob	Using context clues	2.95	1.07	
Glob	Decide what to read closely and what to ignore	2.88	1.11	
SUP	Taking notes while reading	2.87	1.19	
SUP	Translating from English the one's native language	2.80	1.01	_
Glob	Using typographical features	2.75	1.25	
Glob	Using tables, figures, charts	2.68	1.22	_

Table 2. Distribution of students' reading strategy use

The results of the study have yielded problem solving strategies such as guessing the meaning of unknown words, re-reading the text, trying to get back to the track, reading slowly and carefully, and paying close attention to the reading were mostly used strategies by the participants of the study. Global reading strategies which involve metacognitive process such as using prior knowledge, previewing the text before reading, and confirming the prediction appeared as the second mostly used by the students. On the other hand, support reading strategies such as paraphrasing and going back and forth to find the relationship of the ideas were the least used by the students in reading academic text. Students showed a moderate level usage of the global reading strategies and support reading strategies when reading academic materials.

The findings was consistent in categories order with the studies conducted by Sheorey and Mokhtari, Gönen, and Par, who reported the most favoured used of problem-solving strategies followed by global reading strategies and the least used of support reading strategies by the participants (Gönen, 2015; Mokhtari & Sheorey, 2002; Par, 2020). These studies emphasized the importance of applying problem strategies in reading academic texts. Students preferred strategies are indeed different in terms of categories, but all are still at the moderate to high level, indicating that the use of metacognitive, cognitive and support can help students achieve better reading comprehension. Although support reading strategies usage appeared to be the least categories, the use of equipment such as using dictionary, taking notes, and underlining information can be considered as an effective strategy for EFL learners.

### Relationship between Reading strategies and reading comprehension

The second aim of this study was to examine the relationship between reading strategies and reading comprehension. In addition to normality test, the researcher used Kolmogorov-Smirnov Test to look up whether the data were normally distributed or not by using SPSS Statistics 25 as shown in Table 3.

One-Sample Kolmogorov-Smirnov Test				
		Unstandardized Residual		
Ν		60		
Normal Parameters <sup>a,b</sup>	Mean	0.000000		
	Std. Deviation	15.29760955		
Most Extreme Differences	Absolute	0.135		
	Positive	0.083		
	Negative	-0.135		
Test Statistic		0.135		
Asymp. Sig. (2-tailed)		.08°		
a. Test distribution is Normal.				
b. Calculated from data.				
c. Lilliefors Significance Correction.				

Table 3. Normality test

As shown in the Table 3, asymp.Sig (2-tailed) was bigger than 0.05, in which 0.08 > 0.05. Therefore, the data were in normal distribution. To verify or reject the null hypothesis of the study, the researchers conducted Pearson correlation coefficient to measure the correlation between reading strategies and reading comprehension. The mean score of the students' reading comprehension tests was 70 with standard deviation 15.9. The mean of students' reading strategies was 81 with standard deviation 12.90. The result of Pearson correlation is shown in Table 4.

Correlations					
		Reading strategies	Reading comprehension		
Reading strategies	Pearson correlation	1	.275*		
	Sig.(2-tailed)		0.034		
	Ν	60	60		
Reading comprehension	Pearson correlation		1		
	Sig.(2-tailed)	0.034			
	Ν	60	60		
*. Correlation is signifi	cant at the 0.05 level (2-tailed	).			

#### Table 4. Pearson Product Moment correlation result

Table 4 shows the result of the Pearson Product Moment Correlation between the use of students' reading strategies and reading comprehension in which the value of r count = 0.275 is higher than the r table (0.254). It is depicted there was correlation between reading strategies and reading comprehension which is categorized as low correlation. In addition, it observes that the Sig. (2-tailed) value was 0.034 which was smaller than the alpha level (0.05) indicated that there was significant correlation between reading strategies and reading comprehension. Therefore, it can be judged that the null hypothesis is rejected.

The present study revealed a statistically significant and positive correlation between overall students' reading strategies use and students' reading comprehension. The result implied students with high reading strategies (global reading strategies, problem solving strategies and support reading strategies) achieve better result in reading comprehension test. The hypothesis testing revealed that to gain success in reading comprehension test, reading strategies is an ultimate solution to help students.

The result is in line with other previous studies research which showed the significant influence of reading strategies towards the students' reading comprehension (Amir et al., 2019; Banditvilai, 2020; Kassem & Alqahtani, 2023; Kyung Ja Kim, 2015; Qanwal & Karim, 2014).

However, the low correlations indicated that reading strategies are not the only one that affect students reading achievement. EFL teachers also need to consider other factors, such as students' reading efficacy, reading motivation, reading frequency, linguistic knowledge (Ferraz et al., 2021; Kassem & Alqahtani, 2023; Kyung Ja Kim, 2015; Taladngoen et al., 2020). Student who has a better perception of his reading ability thinks more positively about English reading and spends more time in reading (Kyung Ja Kim, 2015). Kim suggested EFL teachers to promote students' intrinsic motivation and reading efficacy through creating a learning context that appeals to the students to satisfy their learning needs and help them increase their reading achievement.

The pedagogical implication of this study demonstrates the importance to train the language learners to use the appropriate strategies and employ them as frequently as possible. Teachers need to design learning instruction to train students with appropriate strategies that will help them to understand academic texts efficiently and effectively. Raising students' awareness of strategy use and of immense importance and explicit strategy teaching for reading comprehension should be integrated within the overall reading curriculum and actualized in the classroom practice (Bećirovic et al., 2017; Sheorey & Mokhtari, 2001). Reading strategies should be taught explicitly, practice of why, where and when to use reading strategies (Yapp et al., 2023) and carefully designed to cater for the needs and learning styles of learners (Alharbi, 2015). Previous studies have suggested number of ways to help students become better readers (Sung & McNeil, 2019). Explicit teaching such as conveying the new information through elaborate guidance, demonstration and interaction of students' learning can be helpful (Boonmoh & Tuaynak, 2023).

# CONCLUSION

The prominent contribution of the present study to teaching EFL sheds lights on the role of the students' reading strategy to reading comprehension performance. Findings demonstrated various reading strategies that Indonesian EFL learners used when reading academic materials and its significance to their reading comprehension. The significant correlation highlighted the need to facilitate EFL learners for awareness and appropriate strategies and certainly have implications from pedagogical point of view for both language teachers and learners.

While this study primarily examined the correlation between students' reading strategies and reading comprehension, some limitations should also be noted. First, the study only involved 60 students from the same cohort denotes that the findings cannot be generalized. Examining larger number of participants from various backgrounds would confirm the findings. Second, the findings were relied on the students' self-report of reading strategies which indicated that students know and aware of the strategies. Further investigation involving observation or interview of the use of the strategies are required to validate the discrepancy between students' beliefs about using the strategies and their actual practice.

# REFERENCES

- Alharbi, M. A. (2015). Reading strategies, learning styles and reading comprehension: A correlation study. *Journal of Language Teaching and Research*, 6(6), 1257–1268. https://doi.org/10.17507/jltr.0606.13
- Amir, A., Hasanuddin, W. S., & Atmazaki. (2019). The contributions of reading strategies and reading frequencies toward students' reading comprehension skill in higher education. *International Journal of Engineering and Advanced Technology*, 8(6 Special Issue 3), 593–597. https://doi.org/10.35940/ijeat.F1105.0986S319
- Arguedo, A., Cabiladas, R., Minoza, J., Nidoy, C. P., & Moneva, J. (2023). Reading comprehension factors and performance of EFL secondary students in Thai education landscapes: A multiregression analysis. *Journal of English Education*, 9(2), 2023. https://doi.org/10.30606/jee.v9i2

- Banditvilai, C. (2020). The effectiveness of reading strategies in reading comprehension. *International Journal of Social Science and Humanity*, *10*(2), 46–50.
- Bećirovic, S., Brdarević-Čeljo, A., & Sinanović, J. (2017). The use of metacognitive reading strategies among students at International Burch University: A case study. *European Journal of Contemporary Education*, 6(4), 645–655. https://doi.org/10.13187/ejced.2017.4.645
- Boonmoh, A., & Tuaynak, A. (2023). An exploration of explicit teaching of reading with Thai students of low EFL proficiency: Factors affecting reading comprehension. *Kasetsart Journal of Social Sciences*, 44(4), 1061–1070. https://doi.org/10.34044/j.kjss.2023.44.4.10
- Brown, H. D., & Abeywickrama, P. (2019). *Language assessment: The principles and classroom practices* (3rd ed.). Pearson.
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: qualitative, quantitative, and Mixed methods approaches* (5th ed.). Sage.
- Ferraz, A. S., Pinheiro, M. C., Angeli, A. A., & Santos, D. (2021). Motivation and Strategies for Reading Comprehension in Middle School Amanda Lays Monteiro Inácio. *Revista Colombiana de Psicología*, 30(2), 71–86. https://doi.org/10.15446/rcp.v30n2
- Flavell, J. H. (1979). Metacognition and Cognitive Monitoring A New Area of Cognitive-Developmental Inquiry A Model of Cognitive Monitoring. *American Psychologist*, *34*(10), 906–911.
- Gönen, İ. K. (2015). The relationship between FL reading strategies and FL reading proficiency: A study on Turkish EFL learners. *Educational Research and Reviews*, *10*(24), 2924–2936. https://doi.org/10.5897/err2015.2530
- Grabe, William, Stoller, & Fredricka L. (2002). *Teaching and Researching: Reading* (2nd ed.). Pearson Education.
- Hasani, A., & Pahamzah, J. (2022). Relationship Approach to Cognitive and Metacognitive Strategies on EFL Students' Reading Comprehension. *Eurasian Journal of Applied Linguistics*, 8(2), 16–23. https://doi.org/10.32601/ejal.911537
- Kassem, H. M., & Alqahtani, D. A. (2023). Motivation, Strategy Use, and Comprehension in Foreign Language Reading: The Case of Saudi EFL Learners at the Preparatory Year. *Journal of Language Teaching and Research*, 14(5), 1290–1301. https://doi.org/10.17507/jltr.1405.17
- Komiyana, R. (2009). CAR: A means for motivating students to read. *English Teaching Forum*, 3, 32–37.
- Kyung Ja Kim. (2015). Developing a Structural Model of EFL Reading Achievement for Korean High School Students. *English Teaching*, *70*(3), 3–21. https://doi.org/10.15858/engtea.70.3.201509.3
- Maeng, U. (2014). The Effectiveness of Reading Strategy Instruction: A Meta-Analysis. *English Teaching*, 69(3), 105–127.
- Mirzaei, A., Rahimi Domakani, M., & Heidari, N. (2014). Exploring the relationship between reading strategy use and multiple intelligences among successful L2 readers. *Educational Psychology*, 34(2), 208–230. https://doi.org/10.1080/01443410.2013.785053
- Mokhtari, K., & Sheorey, R. (2002). Measuring ESL students' awareness of reading strategies. *Journal* of *Development Education*, 25(3), 2–10. https://www.researchgate.net/publication/285641803
- Ondé, D., Jiménez, V., Alvarado, J. M., & Gràcia, M. (2022). Analysis of the Structural Validity of the Reduced Version of Metacognitive Awareness of Reading Strategies Inventory. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.894327
- Ortega-Ruipérez, B. (2022). The Role of Metacognitive Strategies in Blended Learning: Study Habits and Reading Comprehension. *RIED-Revista Iberoamericana de Educacion a Distancia*, 25(2), 219–238. https://doi.org/10.5944/ried.25.2.32056

- Oxford, R. L., & Burry-Stock, J. A. (1995). Assessing the use of language learning strategies worldwide with the ESL/EFL version of the strategy inventory for language learning (SILL). *System*, 23(I), 1–23.
- Par, L. (2020). The relationship between reading strategies and reading achievement of the EFL students. *International Journal of Instruction*, *13*(2), 223–238. https://doi.org/10.29333/iji.2020.13216a
- Qanwal, S., & Karim, S. (2014). Identifying correlation between reading strategies instruction and I2 text comprehension. *Journal of Language Teaching and Research*, *5*(5), 1019–1032. https://doi.org/10.4304/jltr.5.5.1019-1032
- Sheorey, R., & Mokhtari, K. (2001). Differences in the metacognitive awareness of reading strategies among native and non-native readers. *System*, *29*(2001), 431–449. www.elsevier.com/locate/system
- Sun, Y., Wang, J., Dong, Y., Zheng, H., Yang, J., Zhao, Y., & Dong, W. (2021). The Relationship Between Reading Strategy and Reading Comprehension: A Meta-Analysis. In *Frontiers in Psychology* (Vol. 12). Frontiers Media S.A. https://doi.org/10.3389/fpsyg.2021.635289
- Sung, D., & McNeil, L. (2019). Professional Development Experiences in Reading Comprehension Instruction. *The Asian TEFL Journal*, *3*(21), 72–104.
- Taladngoen, U., Palawatwichai, N., Esteban, R. H., & Phuphawan, N. (2020). A Study of Factors Affecting EFL Tertiary Students' Reading Comprehension Ability. *Rangsit Journal of Educational Studies*, 7(1), 12–21. https://www.researchgate.net/publication/342511230
- Westwood, P. S. (2008). What teachers need to know about reading and writing difficulties (C. Glascodine, Ed.; 1st ed.). ACER Press.
- Yapp, D., de Graaff, R., & van den Bergh, H. (2023). Effects of reading strategy instruction in English as a second language on students' academic reading comprehension. *Language Teaching Research*, 27(6), 1456–1479. https://doi.org/10.1177/1362168820985236
- Zhang, L., & Seepho, S. (2013). Metacognitive Strategy Use and Academic Reading Achievement: Insights from a Chinese Context. In *Electronic Journal of Foreign Language Teaching* (Vol. 10, Issue 1). http://e-flt.nus.edu.sg/
- Zhang, L., & Sukying, A. (2022). The relationships between cognitive and metacognitive strategies and efl reading test performance of thai university learners. *European Journal of Education Studies*, *9*(7). https://doi.org/10.46827/ejes.v9i7.4364