



Employing English reading activities to promote English reading comprehension of EFL undergraduate students through self-made teaching materials

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Abstract

The purposes of this study were (1) to construct English reading activities through self-made teaching materials for developing English reading comprehension for first-year undergraduate students at a private university in Bangkok, (2) to compare students' learning achievement between the pre-test and the post-test of employing English reading activities through self-made teaching materials, and (3) to gauge the students' level of satisfaction towards activities through self-made teaching materials. Twenty-five students were purposely selected from first-year undergraduate students at a private university in Bangkok during the first semester of the 2023 academic year. The instruments used were five units of English lessons based on general reading content, a reading achievement test, a questionnaire, and an interview to gauge the subjects' positive assessment of the effectiveness of the instructional materials. The *t*-test was utilized to analyze the English reading progress of the subjects before and after using the English reading lessons based on general reading content. Data analysis was carried out by examining the questionnaire scores in terms of standard deviation, percentages and mean. The results showed that: (1) English reading activities through self-made teaching materials for developing English reading comprehension had an efficiency of 85.60/82.50, which was higher than the 80/80 standard. (2) There was a significant difference between the pre-test and the post-test at $p < .05$ the level of significance. (3) The students reported a high level of satisfaction towards English reading lessons.

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Introduction

Improvements in information and communication technology, as well as the emergence and developments in the Internet network, have made communication more convenient. Surveys suggest that the global number of Internet users continues to grow unabatedly. Figures suggest that there were more than 5.4 billion users of the Internet in 2023 (ITU-Statistics, 2023). Additionally, a causal relationship was discovered between the Internet network and the production and dissemination of information, in that the Internet has caused the processing of information to be done more quickly and conveniently. The benefits provided by the Internet, such as communication, production, and dissemination, also alter the behavior of people when they search for information. Furthermore, by the individual desires of people, the search for information via the internet increases. Currently, information dissemination on the Internet is favored as the media can be presented via an eBook (electronic book), and the data within this 'book' are represented in English. Accordingly, if we are to exist successfully within an information society, we must depend on information. We must be aware of how to pursue information aligned with the conceptual framework for developing learners' skills or, in other words, skills necessary for people living in the 21st century. Looking at the skills of people in the 21st century from a conceptual framework, it is evident that the skill of reading is necessary for everybody to acquire. Consequently, reading also happens to be one of the most important skills for students of English as a Second Language (ESL), as well as for those studying English as a Foreign Language (EFL).

The understanding of the meaning of written material is believed to be a much-needed skill in enabling students to gain knowledge, garner information, and also become proficient in learning grammatical structures and vocabulary from a variety of texts (Bamford & Day, 2004). These factors contribute to achievements in language adroitness, academic progress, and personal growth (Abdelhalim, 2017). We can therefore allude to the fact that encouraging students to engage in reading comprehension tasks is indispensable in developing their language skills and helping them achieve their learning goals. With this in mind, educators have a role of great significance in elevating the comprehension skills of students in English reading tasks. Educators can achieve this through the utilization of reading tasks when teaching. It can naturally be assumed that reading tasks

have a significant role in the creation and construction of meaning in written texts of reading comprehension. This is the reason that a high proportion of teachers assign a high degree of importance to pre, during and post reading tasks to increase the students' reading comprehension skills (Protacio, 2017).

The requisite reading strategies are split into three areas according to Tanjung et al. (2022): pre-reading (planning) strategies, while-reading (monitoring) strategies, and post-reading (evaluating) strategies. Initially, pre-reading strategies are concerned with scanning and subsequently trying to assume the meaning of the text. This skill aids the reader in deciding which written material fits the purpose of their reading. Once it has been decided whether the book or article is appropriate for the purpose, the reader then goes on to think about the topic, impart information from the context, and develop questions to ask themselves (Alemi & Ebadi, 2010). During the while-reading strategies, readers can resolve issues regarding their reading problems through techniques such as self-questioning, self-monitoring, and problem-solving. Post-reading strategies are more concerned with aspects of evaluation and responses to said evaluation. Learners can use their skills to evaluate their strategy by questioning their aims, how effectively they are performing their strategy, and what supplementary targets they can reach that are connected to the text. This self-analysis, in the form of questions, helps readers to appraise the effectiveness of their course of action and respond in the correct manner (Westwood, 2008).

The researcher, an English teacher at a private university in Bangkok, observes that first-year students who have recently graduated from Mathayom studies and are new to higher education share similar types of problems when reading English. Specifically, these difficulties include the exact nature of the discourse, the dense nature of the information in the written article, and an overload of new vocabulary. Furthermore, the content does not apply to the everyday lives of students. Taking such factors into account, it can be stated that if the students are unable to gain the fundamental comprehension of the material they will, in turn, also be unable to hit their exact goal regarding content. The reason for this is that learners in Thailand have been conditioned to comprehend written material closely, with care, and at a ponderous speed. Subsequently, it can be deemed that students generally, but especially those at the intermediate level, need to alter their reading routines and skills to attain an advanced status.

Learners must be trained to address a written text with an explicit purpose, to actuate previous

knowledge, to acquire a better understanding, to focus on the central principle, and to employ their ability to think. Consequently, this researcher produces reading materials, in English, to improve levels of student competency. This is done using the previously mentioned strategy of pre-reading, while-reading, and post-reading. The purpose of these combined tasks is to help students read, understand, learn, and enjoy the chosen written material successfully while creating a more communicative reading environment.

Literature Review

Reading and Comprehension

Research by DeBruin-Parecki et al. (2015) opines that reading makes it possible for learners to become autonomous in comprehending written material, while also making progress with their academic and professional skill levels. Successful readers have higher levels of comprehension because they can make connections with differing ideas, understand notions of complexity, and reflect on this information while reading concurrently. Therefore, education systems seek to introduce educational policies that favor critical thinking and pre-reading to improve the comprehension ability of learners (Javed et al., 2015). Similarly, systematic inclusion of reading and comprehension in the educational environment, allows learners to reflect on the material critically and thus understand a text better. The use of rationale in answering comprehension questions has also been developed (DeBruin-Parecki et al., 2015). According to Glenberg (2011), comprehension is the ability to form competent responses to the information contained within the written material. Consequently, it can be concluded that complete comprehension is not a realistic target for the reader. Alternatively, the reader should simply strive to understand the main theme that the writer wants to convey, rather than every nuance considered by the writer throughout the text as such a thorough understanding might not even exist. To put it more simply, the reader should not aim to achieve complete comprehension of a text; they should only aspire to an appropriate level of comprehension.

Additionally, background knowledge is crucial in encouraging the reader to learn something new. It is said that the schema theory formalizes how background knowledge impacts language comprehension. It is seen as a dynamic process that involves a complex web of ideas,

abilities, and techniques to grasp new facts, events, and circumstances. According to the schema theory, reading comprehension is regarded as an interactive process between the text and the reader's prior knowledge (McNamara, 2007). Thus, the reader will understand the text if he/she creates or activates a schema that corresponds with the information from the text.

Teaching Material

Teaching materials are tools for learning that encompass learning resources, methods, constraints, and evaluation criteria necessary for achieving desired outcomes (Sinthopruuangchai, 2011). Moreover, teaching materials should be crafted and formatted with instructional guidance, as they will be utilized by the teacher to aid and bolster the learning process. Therefore, we can infer that the teacher's role in designing or creating teaching materials is crucial to the success of the learning process. Material refers to anything utilized to meet learning requirements, encompassing not only books but also CDs, videos, dictionaries, and other resources (Tomlinson & Masuhara, 2021). Using teaching materials helps teachers maintain organization in delivering content to students and ensures the achievement of all predetermined competencies. Additionally, Tomlinson and Masuhara (2021) outline several principles for developing materials: (1) The material should be impactful for learners, (2) It should foster a sense of comfort among students, (3) The material should enhance learners' confidence, (4) Learners should view it as both relevant and beneficial. Consequently, the researcher utilizes Tomlinson's guidelines to design the lessons.

The Rules of Pre, While, and Post-Strategy

The division of reading activities into the three stages; pre-reading, while-reading, and post-reading means that the educator can firstly, prepare learners well for the text, and secondly, assist in guiding them through the text to optimize learning. During the initial Pre-Reading stage, the context, scope, or test type, of the topic is built using, what is known as, the 'hook', which triggers prior knowledge and motivates the student to engage. This stage is designed to involve the student as thoroughly as possible while fully engaging the senses. Pre-reading has the purpose of differentiating between the contexts, experiences, predispositions, and prior knowledge that learners have and in turn influences both how they read and how they acquire knowledge from written material (Nunan, 1989).

While the pre-reading stage has an emphasis on improving skills before reading, the while-reading stage concerns itself more with the actual text as learners work on their reading strategies, as well as decrypting and understanding problems within passages of text (Tierney & Readence, 2004). More specifically, the while-reading stage is used to understand the functions of new words, analyze words of reference, decipher the grammatical function of a sentence, and improve the efficient use of a dictionary. These issues are all appreciated by the teacher in their lesson aims. In addition to focusing on the organization of the reading passage and text structure, the while-reading stage also concerns itself with the content of the text, and the general and detailed information found within it (Grabe, 2004).

The post-reading phase is where the in-depth analysis of the material is undertaken, as the educator can check learner comprehension. During this particular stage, learners have the opportunity to use vocabulary and language connected to the topic of the text (Mukhroji, 2011). They consolidate the knowledge gained from the previous two stages, appraising, integrating, and examining the material by making associations, and asking critical questions to establish meaning in the text (Alyousef, 2006). The use of this method and its three stages means that teachers have the power to actuate learners and, the three skills of speaking, listening, and writing can be fused desirably.

Thus, the researcher has incorporated the rules of pre-, while-, and post-reading strategies into the lesson structures and, subsequently, into this research. The aim of these strategies, along with the accompanying materials, is to assist learners in advancing their reading skills, thereby enhancing both their achievements and satisfaction.

Objectives of the Study

The objectives of this study are as follows:

1. To construct English reading activities through self-made teaching materials for developing English reading comprehension for first-year undergraduate students.
2. To compare students' learning achievement between the pre-test and the post-test of employing English reading activities through self-made teaching materials.
3. To survey students' satisfaction with activities through self-made teaching materials.

Methodology

Participants

The study involved a group of first-year undergraduate students from the Thai-Nichi Institute of Technology, a private university in Bangkok. The sample comprised 25 first-year students enrolled in an English Foundation Course, drawn from various faculties at TNI during the first semester of the 2023 academic year. This course was designed for students who scored below 40 marks on the TNI English Proficiency Standard Test. The participants were selected through purposive sampling, based on the class assigned to the researcher by the university registrar's office. [Table 1](#) and [Table 2](#) present the frequency and percentage of the subjects' gender and faculties, respectively.

Table 1 Frequency and percentage of the subjects' gender

Gender	Frequency	Percentage
Male	12	48.00
Female	13	52.00
Total	25	100.00

Table 2 Frequency and percentage of the subjects' faculties

Faculties	Frequency	Percentage
Business Administration	10	40.00
Engineering	10	40.00
IT	5	20.00
Total	25	100.00

Based on [Table 1](#) and [Table 2](#), it turned out that more than half of the participants were female (13) and male (12), studying in 3 faculties including Business Administration (40%), Engineering (40%), and IT (20%).

Topics Used In An Experiment

The topics used in this experiment were (1) Living around the World, (2) Human Sensibility, (3) The Melting World, (4) Existence and (5) Drinking Tea. These were chosen based on the results of a survey of students' needs questionnaire.

Duration In Experiment

The study was conducted over a seven-week period (2 hours per week).

Variables

Variables in this study include:

1. The English reading achievement level of the participating students before and after using English lessons based on the content of general reading.
2. The students' satisfaction with the English reading lessons based on the content of general reading in five units.

Research Instruments

Data were collected with the following instruments:

1. Five lessons of English reading lessons based on content of general reading.
2. English reading achievement test.
3. A survey, in the form of a questionnaire, was put together to gauge the satisfaction level of topics concerned with general reading in five units.

Construction and Development of Research Instruments

The researcher constructed the English lessons based on content about general reading and the achievement test in the following way:

Firstly, this study began by studying the content of the general reading, understood the objectives, and then focused on the relevant skills and strategies for English reading. Sub-topics such as reading to identify the main theme, topic sentences, pronoun references, and sequencing events were emphasized. Secondly, the researcher derived five topics out of eight from the survey of needs questionnaire and interviewed the participants from the target group regarding topics required for first-year undergraduate students. The topics are delineated below in [Table 3](#):

Table 3 Topics students required arranged from highest to lowest mean score

Rank	Topic	Mean	SD	Meaning
1	The Melting World	4.63	0.54	Strongly agree
2	Drinking Tea	4.60	0.59	Strongly agree
3	Living around the World	4.58	0.59	Strongly agree
4	Human Sensibility	4.57	0.67	Strongly agree
5	Existence	4.55	0.62	Strongly agree
6	Sciences	3.69	0.89	Agree
7	Languages	3.64	0.96	Agree
8	World Peace	3.62	0.77	Agree

Thirdly, the initial selection of topics focused on the students' perceived needs. The top five topics, identified by their mean scores, were then adapted for first-year undergraduate students. This adaptation involved providing vocabulary guidelines and explanations, simplifying language structures, sourcing relevant images, and integrating the content into suitable reading material. Subsequently, the table of contents was developed by defining the objectives, content, topics, target reading skills, reading activities, and evaluation criteria. Finally, the completed table underwent inspection for the Index of Item–Objective Congruence (IOC) by English lecturers, all holding PhDs in English Language Teaching and English Studies. Lesson plans were developed for all five lessons, each including learning objectives, topics, and content. The reading activities comprised pre-reading, while-reading, and post-reading tasks. Furthermore, experts reviewed the lesson plans for suitability and accuracy before their implementation with the students.

The pre-reading activity included showing images and answering questions to introduce students to the lesson and connect vocabulary with the images. The while-reading activities were divided into five groups: (1) True/False, (2) Wh-questions, (3) Information Gap, (4) Matching and (5) Sequencing Events. The post-reading activities were categorized into three types: (1) semantic maps, (2) information tables and (3) concept mapping. The lesson test comprised multiple-choice questions, sequencing events, information gaps, and answering questions.

The English Reading Achievement Test

Students completed a pre- and post-class achievement test, and the tests followed the same design and included 30 items each, with a total of 30 scores. The duration of each test was 60 minutes. Each question had four options to choose from, only one of which was the correct answer. The tests were assessed by three English lecturers, all of whom have PhDs in English Language Teaching and English Studies, before being used with a group of 40 students who were not part of the target group to determine the level of difficulty. Based on the difficulty level and rank of discrimination, the test was between 0.69 and 0.77 and 0.33 and 0.44, respectively. The calculation of the test reliability was done using the Kuder-Richardson method (KR 20), resulting in a reliability coefficient value of 0.870 for the English reading achievement test. Both the pre and post-experiment reading achievement tests were the same, with only the order of choices switched.

The Satisfaction Questionnaire

The researcher designed a questionnaire to examine the levels of student satisfaction. It was designed to incorporate both closed and open-ended type questions. The answers to these questions were separated into 5 rating scales in line with the Likert scale system. The five components of the questionnaire were satisfaction, content, instructional design, teaching-learning activities, and evaluation. The questionnaire was developed by the researcher and examined by three teachers from the English department, all of whom hold a Ph.D. in English Language Teaching and English Studies, to ensure language accuracy and content validity. Items with IOC values ranging from 0.50 to 1.00 were deemed acceptable to ensure validity. Subsequently, the questionnaire was piloted with 40 students during the first semester of the 2023 academic year at TNI and assessed for proper reliability. The value of Cronbach's Alpha Coefficient was 0.880.

Data Collection

The teaching material was first trialed with a single student and then on a small group of students before being implemented in normal classroom setting. Thus, there were three distinct steps in the data collection process:

Phase 1

A sample TNI student worked through lessons based on English reading, which contained content regarding general reading. This student was chosen from outside the research test group. The test subject completed the pre and post-tests that contained 30 questions. This 'pre-research' task meant that the researcher was able to garner feedback relating to learner opinion and to correct any issues connected to the proficiency tests and the five units themselves. The student scored 38 out of 50 on the five lesson tests, or 75 percent. On the post-test, the student scored 21 out of 30, or 73.32 percent. The effectiveness of English reading lessons based on content about general reading was 75.00/73.32.

Phase 2

A small group of 10 students then studied the English reading lessons based on the content of the general reading with tests following after the lesson, as well as taking a post-course test. In Phase 2, the researcher also recorded any problems that occurred along with any suggestions made for improvements in the material and

any overall improvements in the lessons. The resulting scores from each lesson and post-test ability assessment were calculated as 78.22/75.22. On the lesson tests, these 10 students scored 392 out of 500 (78.22%). Meanwhile, the results of the post-test, showed the students scored 111 out of 170, or 75.22 percent. Hence, the effectiveness of the English reading lessons was therefore more effective than the English reading lessons in phrase 1.

Phase 3

In this phase, 25 students completed the English foundation course and the post-test. The scores obtained from the different lessons along with the post-test were calculated as 85.60/82.50. Students scored 856 out of 1,000 (85.60%) on the lesson tests. The results for the post-test showed the students scored 495 out of 600, or (82.50%).

Statistics Used in Data Analysis

1. The effectiveness of the lesson was calculated using the E1/E2 formula model (Brahmawong, 1978, as cited in Dokchandra, 2010) followed by the 80/80 criteria.

2. The comparison between the pre-test and post-test was done using the *t*-test, which was calculated by computer program.

3. The data from the questionnaire were rated to find the mean and standard deviation and then translated based on criteria developed by Creswell (2008) as follows:

- 1.00 $\leq \bar{X}$ < 1.50 indicates the lowest satisfaction
- 1.51 $\leq \bar{X}$ < 2.50 indicates low satisfaction
- 2.51 $\leq \bar{X}$ < 3.50 indicates moderate satisfaction
- 3.51 $\leq \bar{X}$ < 4.50 indicates high satisfaction
- 4.51 $\leq \bar{X}$ $\leq$ 5.00 indicates the highest satisfaction

Results

Phase 1

The tests were administered to all 25 students after each of the five units. The statistics used in the data analysis consisted of the arithmetic mean ($\bar{X}$), the standard deviation (*SD*), and the percentage and rank order of scores in each unit. The lesson tests had a mean score of over 80 percent for each unit.

Phase 2

As drawn in Table 4, the comparison of pre-test and post-tests indicated the difference at a significant level.

Table 4 The comparison of the pre-and post-tests

Test	Total score	($\bar{X}$)	SD	t	Sig
Pre-test	30	7.80	3.30	26.933*	0.000
Post-test	30	25.80	1.53		

Note: * represents statistical significance at the 0.05 level.

The results of the post-test were 0.05 higher than the results of the pre-test ($\text{Sig} = 0.000 < 0.05$). The mean score of the post-test was 25.80, which was higher than the pre-test score of 7.80 out of 30. The discrepancy between the pre-test and post-test scores was 18.00, and 26.933 for the *t*-test. These results show that the students' reading ability improved as a result of the course lessons, which confirms the second hypothesis (H_2).

Phase 3

As can be seen in Table 5, the results of the students' satisfaction questionnaire and interview are listed:

The mean score of all five units was 4.54 ($M_{ALL} = 4.54$, $SD_{ALL} = 0.33$). The highest mean score was on unit 2 ($M_{U2} = 4.68$, $SD_{U2} = 0.48$), followed by unit 5 ($M_{U5} = 4.57$, $SD_{U5} = 0.50$). The lowest mean score was on unit 4 ($M_{U4} = 4.43$, $SD_{U4} = 0.69$). The overall results indicated the highest student satisfaction with the English lessons based on general reading content (Table 5), confirming hypothesis 3. In addition to these figures, the interview portion showed most students expressed positive feelings towards the English reading lessons. They claimed that they need to study and read content that is close to their daily life. As many students stated, "The topic or the content that is related to our routine or our experience might help us understand easier what we are reading and there is no need to struggle a lot while we are reading it." Furthermore, they felt positive and motivated to participate and learn through these lessons. As one of the students stated; "For me, these lessons improve my self-confidence in English reading and increase motivation in learning" As a result of the students' responses, there was no doubt why most of them chose the English reading lessons according to their needs and their decisions.

Table 5 The results of students' satisfaction with the English reading lessons based on the content of general reading in five units

Unit	Topic	Mean	SD	Meaning
1	Living around the World	4.54	0.74	The highest satisfaction
2	Human Sensibility	4.68	0.48	The highest satisfaction
3	The Melting World	4.50	0.64	High satisfaction
4	Existence	4.43	0.69	High satisfaction
5	Drinking Tea	4.57	0.50	The highest satisfaction
	Total	4.54	0.33	The highest satisfaction

Discussion

1. The effectiveness of the English reading lessons focused on general reading content exceeded the established criteria, possibly due to the following reasons:

1.1 Basing the English lessons on general reading content enables learners to establish a background knowledge of understanding, as prescribed by (Stipdonk et al., 2020), who advocated background knowledge as playing a significant role in learners' long-term development of reading comprehension. Critical analysis is also empowered. The efficacy of background knowledge in boosting comprehension when reading shows how comprehension understanding is something that is built up, and previous knowledge is vital in that construction. Additionally, with learners already being familiar with the more generic contents, and having gained a background understanding of the topic, they found things from this point on more straightforward. These research results are in line with Cook and O'Brien (2014), whose research revealed that students' background knowledge on the topic or the content of the passages would allow students to become acquainted with the content of the instruction and help in doing the reading comprehension test as well.

1.2 English reading theories developed by Mukhroji (2011) and Grabe (2004), were used to create the teacher-learner task for each unit. Students began with relatively simple activities that gradually increased in difficulty for pre-reading exercises. During the while-reading stage, questions were asked to check the students' understanding. Semantic maps and information charts were employed during the post-reading phase to help students accurately complete the required data. Additionally, students were able to utilize reading strategies to help with their reading comprehension. This finding is consistent with that of Singh (2016)'s research, which showed that the students who engaged in pre-reading, while reading, and post-reading activities performed better in reading comprehension tests. Moreover, the course design was based on expert opinions regarding objective learning, which includes pre-reading, while-reading, and post-reading activities. These experts believe that students are motivated by student-centered reading activities which allow them to construct meaning and integrate information from the text. Students can synthesize information by being motivated to perceive the passage. Therefore, teachers should focus more on the reading material and use suitable and effective techniques and methods in reading classes.

2. Learners' reading ability improved significantly at the 0.05 level, possibly due to increased satisfaction and motivation to study the required content. The contents used for this research were what the students chose on their own from the survey. They were also motivated to comprehend their reading materials from what they were interested in, which enhanced their skills for identifying details. Moreover, a certain degree of familiarity for the learners was enhanced by blending English reading instruction with strategies, semantic maps, and charts. The researcher developed information charts and semantic maps to help the students correctly fill out the information during the post-reading phase. This was supportive of Jittisukpong (2019) whose research revealed that reading instruction with strategies with semantic maps made the students enjoy learning English, and it helped improve their reading skills effectively.

3. The results of students' satisfaction revealed that they felt higher levels of satisfaction with the English lesson, which was due to the students' positive perception toward the use of general English reading lessons. This may be because the learners engaged in activities in the lesson by themselves throughout the time. Moreover, they enjoyed the reading process and were enthusiastic throughout the lesson. It is possible that in this study the students were motivated by the content of the reading close to what they are familiar with. That is why they find ways to build bridges into the text, through the kind of activities they choose to do before, during, and after reading. In this way, they can gain richer experiences. Consequently, students are not stressed because they are reading for fun, and this finding is in line with Day (2015)'s extensive reading precepts. He also showed that if the reading materials can connect to personal experience and knowledge, and engage in self-monitoring, these will link students' schema and give them a richer reading experience.

Conclusion and Recommendation

The results of the study and subsequent analysis revealed the following points:

1. The efficiency of English reading lessons based on general reading content for first-year undergraduate students in this study was 85.60/82.50, higher than the established criteria (80/80). It could be shown that English reading lessons based on general reading content were very effective for this group of learners, which confirms the first hypothesis (H_1).

2. The level of the subjects' English reading ability improved after this method of instruction was introduced at a statistically significant level of 0.05, which confirms the second hypothesis (H_2).

3. The students' overall results showed the highest satisfaction with the English reading lessons based on the content of general reading, which confirms the third hypothesis (H_3).

Contemplating the aforementioned points, it is recommended that further research compares online education with the direct, face-to-face, and traditional method of learning.

Conflict of Interest

The authors declare that there is no conflict of interest in conducting this research.

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References

- Abdelhalim, S. M. (2017). Developing EFL students' reading comprehension and reading engagement: Effects of a proposed instructional strategy. *Theory and Practice in Language Studies*, 7(1), 37. <http://dx.doi.org/10.17507/tpls.0701.05>
- Alemi, M., & Ebadi, S. (2010). The effects of pre-reading activities on ESP reading comprehension. *Journal of Language Teaching and Research*, 1(5), 569–577. <https://doi.org/10.4304/jltr.1.5.569-577>
- Alyousef, H. S. (2006). Teaching reading comprehension to ESL/EFL learners. *Journal of Language and Learning*, 5(1), 63–73. https://www.researchgate.net/publication/235771368_Teaching_reading_comprehension_to_ESLEFL_learners
- Bamford, J., & Day, R. R. (2004). *Extensive reading activities for teaching language*. Cambridge University Press.
- Cook, A. E., & O'Brien, E. J. (2014). Knowledge activation, integration, and validation during narrative text comprehension. *Discourse Processes*, 51(1–2), 26–49. <https://doi.org/10.1080/0163853X.2013.855107>
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Pearson Education.
- Day, R. R. (2015). Extending extensive reading. *Reading in a Foreign Language*, 27(2), 294–301. <https://doi.org/10.64152/10125/66893>
- DeBruin-Parecki, A., Van Kleeck, A., & Gear, S. (2015). *Developing early comprehension: Laying the foundation for reading success*. Paul H. Brookes Publishing Co.
- Dokchandra, D. (2010). *Enhancing English reading comprehension through a text structure reading strategy call program* [Unpublished doctoral dissertation]. Kasetsart University.

- Glenberg, A. M. (2011). How reading comprehension is embodied and why that matters. *International Electronic Journal of Elementary Education*, 4(1), 5–18. <https://iejee.com/index.php/IEJEE/article/view/210>
- Grabe, W. (2004). 3. Research on teaching reading. *Annual Review of Applied Linguistics*, 24, 44–69. <https://doi.org/10.1017/S0267190504000030>
- ITU-Statistics. (2023, December 3). Mobile network coverage. Facts and figures 2023. <https://www.itu.int/itu-d/reports/statistics/2023/10/10/ff23-mobile-network-coverage/>
- Javed, M., Lin, S. E., & Mohamed, A. R. (2015). Developing reading comprehension modules to facilitate reading comprehension among Malaysian secondary school ESL students. *International Journal of Instruction*, 8(2), 139–154. <https://doi.org/10.12973/iji.2015.8211a>
- Jittisukpong, P. (2019). Using semantic mapping in teaching English reading skills of Thai EFL learners. *Journal of Roi Et Rajabhat University*, 13(2), 201–214. <https://so03.tci-thaijo.org/index.php/reru/article/view/213071>
- McNamara, D. S. (2007). *Reading comprehension strategies: Theories, interventions, and technologies*. Psychology Press.
- Mukhroji, M. (2011). *The importance of teaching reading strategies to improve students reading comprehension* [Unpublished master's thesis]. Universitas Negeri Malang.
- Nunan, D. (1989). *Designing tasks for the communicative classroom*. Cambridge University Press.
- Protacio, M. S. (2017). A case study exploring the reading engagement of middle grades English learners. *RMLE Online*, 40(3), 1–17. <https://doi.org/10.1080/19404476.2017.1280586>
- Singh, R. (2016). The impact of intrinsic and extrinsic motivators on employee engagement in information organizations. *Journal of Education for Library and Information Science*, 57(2), 197–206. <https://doi.org/10.3138/jelis.57.2.197>
- Sinthopruuangchai, S. (2011). *A study of Thai EFL learners' metacognitive awareness of reading strategies* [Master's thesis, Language Institute, Thammasat University]. https://digital.library.tu.ac.th/tu_dc/digital/api/DownloadDigitalFile/download_digi/119921/?path=thesis/lg/0636/title-appendices.pdf
- Stipdonk, L. W., Dudink, J., Reiss, I. K., & Franken, M. C. J. P. (2020). Does a narrative retelling task improve the assessment of language proficiency in school-aged children born very preterm? *Clinical Linguistics & Phonetics*, 34(12), 1112–1129. <https://doi.org/10.1080/02699206.2020.1720824>
- Tanjung, N. J. U., Lubis, Y., & Daulay, E. (2022). The effect of pre-reading, during reading, and post reading activities to monitor students' comprehension in reading narrative text. *INSPIRATION: Instructional Practices in Language Education*, 1(2), 16–30. <https://jurnal.uinsu.ac.id/index.php/inspiration/article/view/14150>
- Tierney, R. J., & Readence, J. E. (2004). *Reading strategies and practices: A compendium* (6th ed.). Pearson.
- Tomlinson, B., & Masuhara, H. (2021). *SLA applied: Connecting theory and practice*. Cambridge University Press.
- Westwood, P. (2008). *What teachers need to know about reading and writing difficulties*. ACER Press.