

**THE USE OF SCHEMA ACTIVATION STRATEGY
FOR TEACHING READING COMPREHENSION IN EFL CONTEXTS: A
META-ANALYSIS STUDY**

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Abstract: This study aims to analyze journal articles that focus on the use of schema activation strategies for reading comprehension in EFL contexts. This study applied a quantitative approach and meta-analysis, by analyzing the content of the four selected journal articles in terms of the application schema activation strategy reading in national and international journal articles with meta-analysis technique it is enabled and combines a wide range of pre-existing research results, meta-analysis is a secondary data by collecting from the data or document to analyze. The result finding shows, that the researchers used different types. Two journals applied the types of formal and content schema, the others used three types of schema, there were linguistic, content, and formal schema. According to the findings of this study, teachers and researchers can use the schema activation technique to improve reading comprehension. As an alternative strategy for teaching reading comprehension.

Keywords: Reading Comprehension, Schema Activation, Teaching Reading.

INTRODUCTION

Reading comprehension is important for English as Foreign Language (EFL). Reading comprehension gives meaning to what

is read. Reading comprehension occurs when words on a page represent more than just words but also thoughts and ideas. Reading becomes more informative when it is comprehended. Being able to read

opens up fresh new knowledge and opportunities, especially when it comes to read items written in a foreign language (Nery & Novia, 2022). Reading comprehension also it is importance to understand the meaning of written or written symbols or words, to find or find out about something and understand something in a particular way, a way in which something is interpreted or understand. Al-Jarrah and binti Ismail, (2018) stated that the learners who have no understanding of the reading material are unable to enjoy reading. At a similar time, a lack of comprehension might be it is because of a lack of vocabulary knowledge. This indicates that there is a relationship between reading and vocabulary. Such as EFL learners should have adequate vocabulary

knowledge to grasp the content of reading text.

Recognizing the importance of improving reading comprehension in readers, a process needs to be integrated across multiple sources of information. This research is about applying schema activation on reading comprehension. Schema activation strategy has been applied by many previous researchers and scholars. The first, Atif and Asst (2017) reported that a review is an essential component of second language (L2) reading comprehension for the purposes of this research study on content schema. Second, Ensam (2021) analyzed about the importance of pre-reading activities is examined in the research study concerning the implications of schema theory on teaching EFL and English as a second

language (ESL) reading comprehension. Third Yan (2020) reported about examines how the schema theory is taught in English reading instruction. Silva (2019) explored her investigation into the use of introductions in EFL reading classes.

Therefore, this study's goal is to determine the different kinds of schema activation techniques that the researchers used to teach reading comprehension. and to identify the procedures of schema activation strategy used for teaching reading comprehension in EFL contexts. According to LI Jian-ping and Zang Li-sha (2016), schema theory is a scientific reading theory that is supported by contemporary education that views reading comprehension as a process in which the reader's prior

knowledge and abilities interact with the text.

Moreover, schema theory is background knowledge and used knowledge in certain ways with cognitive memory to understand texts with readers' knowledge, based on situations and problems related to words encountered in textbooks.

Therefore, the definition of schema is also about schema can be a scientific reading theory in applying reading strategies with schema theory to teach reading comprehension. For the types of schema, commonly used two types and they were content schema and formal schema. It is almost directly related to vocabulary, or knowing the meanings of words. In fact, it encompasses more than just comprehending the events, scenarios, or concepts that influence the

comprehension of the text. For the approach of reading comprehension have several models for reading comprehension consist of bottom up, top down, and interactive model. According to Xue (2019, p. 61), this model made clear that in order to comprehend the overall meaning of grammar and discourse, reading instruction should begin with the identification of the smallest unit of letters in the English language and words. Bottom up also used by the readers when they find the text they are reading difficult, the difficulty of the text can be the language and content of the text. When the language of the text is difficult, readers start to identify the meaning of the words. Then, they combine meanings of words to gain an understanding of phrases, sentences and paragraphs until they reach the overall meaning

of the text. In top down model according to Xue (2019, p. 61) defines that this model is too much emphasis on the importance of the past experience and cultural background knowledge of readers, while ignoring the most basic knowledge of English language, as if we build a castle in the sky. Without strong foundations, the whole building will collapse. Readers usually use top down strategies when they have sufficient background knowledge and language competence about the text being read, and when the cues present in the text can activate content schemata. It means that readers can understand the cues present in textbook that can activate content schemata and text characteristics. Next, Xue (2019, p. 61) stated that This concept believes that the bottom-up and top-down

models work together to produce any act of reading comprehension.

Others sides, about teaching reading and the strategies to reading comprehension, Pourhosein Gilakjani and Sabouri, (2016) stated that activating and using background knowledge, the second generating and asking questions, the third predicting, summarizing, and visualizing.

From the types of schema that have been mentioned, it concluded that each type of schema has a function and also types of schemas can be applied to reading comprehension. In this research study, the researcher used a quantitative approach and meta-analysis as a method, and there are national or international journal articles that were selected of the fourth journal as the subject of this research for the

analysis, that mentioned above related to the researcher's title is "the use of schema activation strategy to teaching reading comprehension in EFL contexts".

METHODOLOGY

Filho and Kovaleva (2015, p. 66) stated that quantitative research begins with a problem statement and involves the formation of a hypothesis, a literature review, and a quantitative data analysis. Quantitative research also involves data collection that is typically numeric and the researcher tends to use mathematical models as the methodology of data analysis. Additionally, the researcher uses the inquiry methods to ensure alignment with statistical data collection methodology."

In quantitative research, the results of the analysis can be obtained accurately when used according to the rules and can simplify the reality of complex and complicated problems in a model. Quantitative research is more systematic and able to use the existing theory, also the research is more objective, specific, clear, and detailed. This study focused on analysis schema on reading comprehension used by the previous researchers reported in journal articles. For the analysis from previous journal articles: topics, journal publications, time, methodology, results, and discussion, also the conclusions. To find criteria from previous journals is from topics that contain schema activation, schema theory on reading comprehension, and reading strategies to teaching reading in schema theory, in the year of publication of journals

that are still relevant. Therefore, this research used the meta-analysis technique, because enables and combines a wide range of pre-existing research results and meta-analysis is secondary data by collecting from the data or document to analyze.

Shorten and Shorten (2013, p. 3) stated that meta-analysis is a research process used to systematically synthesize or merge the findings of single, independent studies, using statistical methods to calculate an overall or 'absolute' effect. Meta-analysis does not simply pool data from smaller studies to achieve a larger sample size. Analysts use well recognized, systematic methods to account for differences in sample size, variability (heterogeneity) in study approach and findings (treatment effects) and test

how sensitive their results are to their own systematic review protocol, study selection and statistical analysis.”

The tools of data collection are from previous journal articles, the journal articles are reports of original research, analysis, or reviews of existing research on a topic by an expert. These specialist studies are published in journals, which are professional and academic periodicals. Commonly, journal articles have some parts; abstract, introduction, method, results, discussion, references, appendices, and tables or figures.

RESULT AND DISCUSSION

The result of the data that has been collected and analyzed and conducted to get the data of the use of schema activation in EFL. It was done

from November 2022 until January 2023 for about 3 months and the journals were read 2 to 3 times for each journal in the range of 3 months, in the analysis data focused on the object of research of journal articles from previous researchers. The analysis data also consists of 4 journal articles that will be analyzed based on national and international journals. The last five years are seen from the aspects of the topic, time, journal publication, methodology, finding and discussion, and conclusions that will become analysis data. The analysis data would be analyzed in table form, in analyzing the categories of schema types and procedures in activating schemas in readers, also in this analysis data using quantitative approach and meta-analysis technique. Detailed results can be seen in the research finding and discussion of this

study. For these studies in the analysis journal articles results are below as follow:

Tabel 1
The Result finding of first journal

Article	Procedur es	Types
content schema, an indispensable part of L2 reading comprehension : a review. (Atif & Asst, 2017)	previewin g and prediction questionin g brain storming	two types of schema content & formal

The result finding of the first journal is formal and content schema. For the implementation of the procedures of the first journal is previewing and prediction, questioning, and brainstorming to activate schema readers. The finding of the research concluded that prior knowledge is fundamental to the reading process and contributes significantly to the reading process. This study presents guidelines that

can be implemented by the teacher in reading sessions to improve the student's reading proficiency.

Tabel 2
The Result finding of second journal

Article	Procedur es	Types
Implications of schema theory on teaching EFL and ESL reading comprehension: the role of pre-reading activities (Ensam, 2021)	pre-reading activities consist of questionin g, previewin g.	linguistic schema, formal schema, content schema.

The second journal uses three types of schema linguistic, content, and formal schema. The implementation of the teaching procedures of the second journal included pre-reading activities that involve: questioning, previewing, and providing a pictorial context and using brainstorming techniques to activate schema. The result of the research concluded that schemata play a very important role in reading, this shows the careful use of appropriate pre-reading activities

to achieve comprehension, especially of texts that are culturally or domain-specific.

Tabel 3
The Result finding of third journal

Article	Procedures	Types
a brief analysis of the schema theory on the teaching of English reading. (Yan, 2020)	prediction and discussion	Three types of schema: linguistic schema, content schema, formal schema.

The third journal uses three types of schema linguistic, content, and formal

schema, for the implementation of the procedures of this third journal (prediction and discussion) in pre-reading (predictive reasoning), while reading (information processing), and post-reading (consolidation and expansion) to activate readers schema.

The result of the research concluded that the more background knowledge

that you have determines the great and wide of your reading comprehension helping you to build connections between your background knowledge and your new knowledge to develop and extend it.

Tabel 4
The Result finding of fourth journal

Article	Procedures	Types
schema theory: an introduction and its application in EFL reading class room. (Silva, 2019)	pre-reading activities: in prediction, such as make analogies, comparisons, from readers existing schemata.	content schema and formal schema.

The fourth journal using two types of schema theory in formal and content schema. The implementation of the procedures in the fourth journal is pre-reading activities to make predictions about the text such as making analogies and comparing from readers existing schemata to

activate schema. The result of the research concluded that the reading process has to consider formal schema and content schema and semantic knowledge, with background knowledge being processed for interactive processing. In other words, a reader uses bottom-up processing for low-level comprehension and top-down processing for inferential.

The first journal and fourth journals are consistent in using two types (formal schema and content schema). Besides that, the second journal and third journals used three types of schema theory (linguistic schema, content schema, and formal schema). It is different from the first and fourth journals in using schema theory types to teach reading comprehension. From the finding above, it can be concluded the first

journal and the fourth journal consistency use two types of schema theory, but the second journal and third journal is different from the first and fourth journal.

Because have different types of schema namely linguistic schema. For the procedures of schema theory, the first and second journals consistently use brainstorming and questioning in applying schema theory and the third and fourth journal is the same using prediction about the text, such as making analogies and comparing from readers existing schemata to activate schema. Although this study suggests significant findings and implications, there may be some possible limitations in this research. First, the writer only focused on four journals, relating to the schema theory in learning and how the writer

interpreted the schema theory influenced reading comprehension. This might be difficult for the writer to include good descriptions of the journals and reveal the uniqueness in general because of the limited sample size. However, this research may be transferable to other relevant contexts and provide a starting point for further research. The second limitation related to the tools of collecting the data, the tools of collecting the data, and data analysis. It is hard to know whether it is accurate or not because all the journals are subjective.

CONCLUSION

The conclusion deal with the result of analysis research journals article that related from the research title from “the Use of

Schema Activation Strategy for Teaching Reading Comprehension in EFL Contexts”. For the conclusion based on the result of research that have been analyzing, in the conclusion as follows: the types of schema activation strategy, in these article are various. For the first journal was written by (Atif & Asst, 2017) it was found in this first journal that there are content schema and formal schema. The second journal was written by (Ensam, 2021) there are linguistics schema, content schema and formal schema. For the third journal, it was written from (Yan, 2020) there are linguistic schema, content schema, and formal schema.

The fourth journal, by (Silva, 2019) it was found in this fourth journal using content schema and

formal schema types. Therefore, for the procedures of the schema activation strategy applied by the previous researchers in teaching reading comprehension, each journal has different ways to implement schema theory in reading comprehension. The first journal is previewing and prediction, questioning, and brainstorming. The second journal is pre-reading activities that involve, questioning and previewing. For the third journal, the implementations of schema theory are used in prediction and discussion. The last one of the fourth journal used pre-reading activities in prediction about the text such as making analogies and comparing readers existing schemata to activate schema. In conclusion, from the result of the

analysis journals have different types and different ways to implement schema activation strategy, but dominantly the types of schema in teaching reading comprehension are formal schema and content schema, and for the procedures schema in general used questioning and brainstorming.

Based on evidence from research findings that the activation strategy can be employed for achievement of comprehension it is suggested for the teachers and other researchers. By expanding readers' background knowledge, they can make correct judgments and predictions about problems while reading the target text. The better the correspondence between the reader's schema and the text, the better the comprehension.

Understanding depends on knowledge. Based on what we already know and what we don't know.

Our understanding of text depends on how many coherent patterns we have as we read it. Therefore, it may happen that the text does not make sense because of the lack of a suitable scheme for the content of the text. This lack of appropriate patterns may be content, form, or language. The importance of background knowledge has three main implications for teachers: First, Teachers must consider the knowledge upon which each written text is based. Second, if the reader is not actively using his/her background knowledge, which is an important part of reading the

process doesn't happen. Teachers should have the main goals develop creative interpretive strategies for problem-solving so that students can use any knowledge or resources they may have. Teachers activate and use their background knowledge will help them become better readers.

For teacher, in learning reading comprehension, teachers could implement the schema activation strategy as one of the alternative strategies among the strategies for teaching. Teachers can encourage and motivate students to read more English materials and read a lot of English subject matter. The researchers should implement the schema activation strategy in teaching reading comprehension, in helping

readers' difficulties in comprehension of reading texts. Because the schema activation strategy can improve reading comprehension, it may be helpful for further studies to use different skills, namely speaking, listening, and writing, and also apply this strategy at different school levels in the EFL context to increase generalization, transferability of the findings research and investigate the formal schemata, linguistic schemata, and content schema with combining schema theory.

REFERENCES

- Al-Jarrah, H., & binti Ismail, N. S. (2018). Reading comprehension strategies among EFL learners in higher learning institutions. *Arab World English Journal*, 9(2), 315–328. <https://doi.org/10.24093/awej/vol9no2.21>
- Atif, U., & Asst, J. (2017). Content schema, an indispensable part of L2 reading comprehension: A review/second language acquisition. *International Journal of English Language Teaching*, 5(9), 1–12.
- Ensam, B. K. (2021). Implications of schema theory on teaching EFL and ESL reading comprehension : The Role of pre-reading activities language. *International Journal of Linguistics' and Translation Studies*, 2(4), 75–90.
- Leal Filho, W., & Kovaleva, M. (2015). Research methods. *Environmental Science and Engineering*, 5(3), 81–82. https://doi.org/10.1007/978-3-319-10906-0_5
- LI Jian-ping, & Zang Li-sha. (2016). The application of schema theory to English reading teaching in junior high school. *Sino-US English Teaching*, 13(1), 14–21. <https://doi.org/10.17265/1539-8072/2016.01.003>
- Nery, R., & Novia, F. (2022). Exploring Students' difficulties in comprehending exposition text towards POE strategy. *Proceedings of the 67th TEFLIN International Virtual Conference & the 9th ICOELT 2021 (TEFLIN ICOELT 2021)*, 624, 191–193. <https://doi.org/10.2991/assehr.k.20201.034>
- Pourhosein Gilakjani, A., & Sabouri, N. B. (2016). How can students improve their reading

comprehension skill? *Journal of Studies in Education*, 6(2), 229. <https://doi.org/10.5296/jse.v6i2.9201>

Shorten, A., & Shorten, B. (2013). What is meta-analysis? *Evidence-Based Nursing*, 16(1), 3–4. <https://doi.org/10.1136/eb-2012-101118>

Silva, R. C. (2019). Schema theory: An introduction and its application in EFL reading classroom. *Revista de Letras*, 21(34), 157–169. <https://doi.org/10.3895/rl.v21n34.10066>

Xue, Y. (2019). The use of schema theory in the teaching of reading comprehension. *International Journal of Liberal Arts and Social Science*, 7(4), 58–63.

Yan, N. (2020). *A brief analysis of the schema theory on the teaching of English reading*. 412(Icmetie), 205–207. <https://doi.org/10.2991/assehr.k.200306.108>