



BEYOND THE WORDS: THE ART AND SCIENCE OF TEACHING READING INTERACTIVELY

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Abstract:

This paper explores the complex landscape of interactive reading practices, with a particular focus on pre-while-post reading stages, sub-reading skills, top-down and bottom-up processing, and intensive and extensive reading strategies. Together, these components are crucial in shaping effective reading pedagogy. The article reaffirms the multifaceted nature of interactive reading, highlighting the importance of a balanced and diverse approach to education. Insights gained from previous research underscore the transformative potential of this approach, providing a pathway to foster a generation deeply passionate about the literary realm. The findings emphasize the significance of a holistic engagement with various reading strategies. An ongoing exploration of these methodologies presents a promising trajectory, not only enriching English language teaching but also nurturing a profound appreciation for the power of reading among learners. As such, the study contributes to the constant conversation on effective reading instruction, providing a foundation for future research and practice in this area.

Keywords: reading skills, interaction, critical thinking, strategies, reviews

1. Introduction

Reading comprehension is a fundamental pillar in the acquisition of language skills for ESL/EFL learners. According to Noor (2011), mastering this skill is essential for language proficiency, as it is interrelated with and refines a range of interconnected abilities. Yang (2021) emphasizes the importance of reading skills in ESL/EFL classrooms since they not only enhance language competence but also cultivate critical thinking and cognitive prowess. Due to the complex nature of reading comprehension, educators need to integrate diverse techniques and strategies and orchestrate interactive lessons that inspire critical thinking and active engagement. This pedagogical shift catalyzes active learning, fostering an immersive educational experience where students participate, share insights, and collaboratively construct knowledge (Shamchuk, 2013).

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The evolving perception of reading as an active skill, instead of a passive activity, has driven a global shift in educational paradigms. Reading is now seen as an interactive skill that can be effectively taught through various strategies. Thorndike (2009) supports the concept that reading is more than just the mechanical decoding of words; it is a purposeful, rational act rooted in prior knowledge and expectations. In the book by Damico (2005), the author delves into the process of how readers develop a comprehensive conception of themselves as puzzle solvers, investigators, and potential authors. The author provides insights into how readers can engage with the text in a more meaningful way, becoming more than just passive consumers, but active participants in the reading experience. Grabe (2009) defines strategic readers as those who are good at employing context-appropriate strategies in line with their reading goals and processing abilities.

Educators use various toolkits of pedagogical techniques, such as guided reading, reciprocal teaching, and close reading, to hone students' inferential abilities. Guided reading scaffolds students' navigation through texts, while reciprocal teaching equips them with questioning, summarizing, clarifying, and predicting skills (McNamara, 2011). These methods, particularly reciprocal teaching, have established themselves as vital for nurturing comprehension skills. Furthermore, Luke (2011) and Muslaini (2017) advocate for an inclusive approach to reading comprehension, by accentuating the use of a variety of strategies to yield more favorable outcomes. This approach involves engaging with the text in a more meaningful way, going beyond passive consumption, and becoming active participants in the reading experience. By adopting this pedagogy, instructors can help readers enhance their understanding of literature and improve their overall enjoyment of the reading process.

Research by Aidil (2014) and Nurhamidah (2018) reiterates the pivotal role of teachers' strategic use in facilitating effective reading comprehension. The integration of a diverse array of strategies emerges as a hallmark of effective reading instruction. This synthesis not only underscores the complexity and dynamism of teaching reading interactively but also underscores the need for educators to employ a miscellaneous and interactive approach to promote a generation passionate about the transformative power of literature.

1.1 Research Questions

- 1) How do the specific elements of pre-while-post reading stages individually contribute to the comprehension and engagement of students in reading activities?
- 2) What is the impact of individual sub-reading skills on the interactive nature of reading lessons, and how do they collectively enhance students' comprehension and engagement?
- 3) What is the dynamic interplay between top-down and bottom-up processing strategies in reading instruction, and how does this influence students' comprehension and critical thinking skills?

- 4) How do intensive and extensive strategies help promote students' understanding and passion for reading?

1.2 Research Problem

The research review on teaching reading interactively faces the intricate challenge of balancing the many-sided dimensions of pedagogical approaches with the need for a cohesive, universally applicable framework. Within this issue lies the struggle to reconcile the myriad of interactive strategies catering to reading stages, sub-skills, processing techniques, and diverse reading strategies while ensuring seamless integration into varied educational settings. This problem encapsulates the quest for an optimal balance between the depth and breadth of teaching methods, aiming to offer inclusive comprehension while sustaining students' intrinsic motivation and enthusiasm for reading. Besides, the challenge extends to identifying potential limitations and gaps within the existing literature, integrating emerging technological advancements, and addressing diverse learner needs. The task at hand is to navigate the complexities of this expansive landscape to craft an adaptable and all-encompassing framework for interactive reading instruction that remains effective and engaging across different educational contexts.

1.3 Significance of the Study

This study holds significance in several dimensions. Firstly, it contributes a holistic understanding of interactive reading instruction, offering instructors a nuanced perspective on how different tools can be strategically employed. Secondly, by investigating the interchange between various components, the study aims to inform instructional practices that not only enhance academic outcomes but also cultivate a genuine passion for literacy. Lastly, the research lays the groundwork for future advancements in pedagogy by highlighting areas where technology integration and innovative methodologies could further augment the effectiveness of interactive instruction.

2. Findings

2.1 Reading Stages

The process of reading is a complicated and multilayered journey, comprising distinct stages, each essential in rendering the reading experience interactive, engaging, and intellectually enriching. As elucidated by Cline, Rosowsky (2001), reading unfolds as a dynamic process including decoding, comprehension, and the extraction of meaning from written texts. Simmons (2000) supports the idea there are three main stages to a structured reading lesson: the pre-reading, the while-reading, and the post-reading phases.

2.2.1 Pre-reading Stage

The pre-reading stage serves as a preparatory gateway, setting the tone for the ensuing reading experience. Teachers usually initiate a reading lesson with purpose, involving activities such as text previewing, prediction, vocabulary pre-teaching, visual aid utilization, the activation of prior knowledge, skimming for a general understanding, and scanning for key concepts (Anaktototy, 2020). The role of teachers in this stage is decisive, as they help build interest and guide students through the process of previewing and other pre-reading activities. For instance, in his study, Jose (2011) places emphasis on the fact that teachers should foster reading habits and provide guidance and encouragement to students primarily during the before-reading phase. Teachers can use various activities to make the pre-reading stage interactive and engaging. As an example, they can use graphic organizers to help students organize their thoughts and activate their prior knowledge of the topic. They can also use group discussions or think-pair-share activities to encourage learners to share their ideas and perspectives on the topic. This pre-reading process harmonizes effectively with the work of Arcos (2018), who emphasizes the interplay between readers' prior knowledge, cultural context, text genre, textual type, and language proficiency as pivotal components of reading comprehension. The overarching goals of this stage are to actively engage the reader in the reading process, furnish a contextual understanding of the text, and prepare the reader for the subsequent while- and post-reading phases.

2.2.2 While-reading Stage

The while-reading stage is the heart of the reading process, the phase in which the reader actively engages with the text, assimilates information and establishes connections. This stage is where the bulk of the reading experience takes place, and it is where the student can deepen their understanding of the text and actively participate in the reading process. Active reading methodologies, including highlighting, underlining, note-taking, and question generation, enrich the reader's interaction with the text.

In this phase, the teacher's role is to provide guidance and support by encouraging pupils to read for the first time to grasp the general idea, since comprehending the main idea serves as an important milestone (Valdivieso, 2000). In the same vein, Alyousef (2006) underlines that the core objective of reading comprehension is centered on identifying and understanding the main idea, signifying the preeminence of this skill. Thus, instructors facilitate the reading process by asking learners to read the text for the second time so they can get specific ideas by answering reading activities such as wh-questions (what, where, when, etc.). Learning, as a progressive process, necessitates a third reading for an in-depth understanding of the text. During this period, activities such as "true or false, justification" and "inference-making" deepen the reader's engagement. Inferences, as described by McEwan (2004), are metacognitive phenomena, encompassing the amalgamation of contextual cues and existing knowledge to deduce concealed elements within the text.

The core aim of this stage is to encourage the reader to engage with the text deeply, to make connections between different parts of the text, to think critically about the

information presented, and more importantly, to know so much information about the text.

2.2.3 Post-reading Stage

The post-reading phase is dedicated to reflection and analysis. As posited by McNamara, (2011), post-reading exercises initially serve as comprehension assessments, eventually guiding readers into a more profound analysis of the text. Teachers can orchestrate the after-reading stage by designing tasks that forge connections between the text's content and students' prior knowledge or experiences. Such activities contain discussions, opinion sharing, agreements and disagreements, and summarizations. The post-reading stage incorporates a review of the text, the identification of key points, and an evaluation of the information presented. Vaezi (2006) accentuates the diverse manifestations of post-reading activities, which embrace written and oral discussions, summarizations, question formulation, form completion, reading logs, text completion, supplementary readings, and role-playing. These activities stimulate critical thinking, deepen text comprehension, and facilitate the integration of the text with real-life experiences. The principal objective of this stage is to prompt critical reflection on the text, encourage the synthesis of learned information, and promote the connection between the text and individual experiences. This phase also offers an opportunity for readers to evaluate the text and formulate their own perspectives on the conveyed information.

These three stages of reading comprehension collectively contribute to an interactive and engaging reading experience. By actively participating in each stage, readers cultivate their reading proficiency, gain deeper insights into the text, and establish meaningful links with their own experiences. It is fundamental to recognize that each stage demands distinct skills, strategies, and techniques. Proficiency in wielding these tools empowers the reader to become a more effective and efficient participant in the reading process.

2.4 Reading Sub-skills

Reading is deemed by many practitioners as a difficult mental process (Horder, 2004), while several students find it a boring activity. But the question that should be asked is why students find reading texts boring. The answer might be due to the absence of integrating reading sub-skills into the teaching and learning of reading. There are several sub-skills that can be used to facilitate the reading process and make it more interactive and enjoyable. These tools must be used effectively by taking into account the students' age and level, as well as the number of students.

2.4.1 Prediction

As per the research conducted by Jehan (2023), proponents of schematic theory consider prediction to be a crucial pre-reading activity. Prediction plays a vital role in facilitating interactive reading for students, as demonstrated by several past studies. Kuperberg (2016) delved into the topic of prediction in language comprehension, highlighting its probabilistic nature and the use of multiple levels and grains of representation. Through

the adoption of actionable strategies, readers can become more confident in their ability to comprehend and analyze complex texts, resulting in greater success in academic and personal pursuits. Predictions, in his opinion, are inquiries that readers pose to the world, and understanding entails receiving the responses.

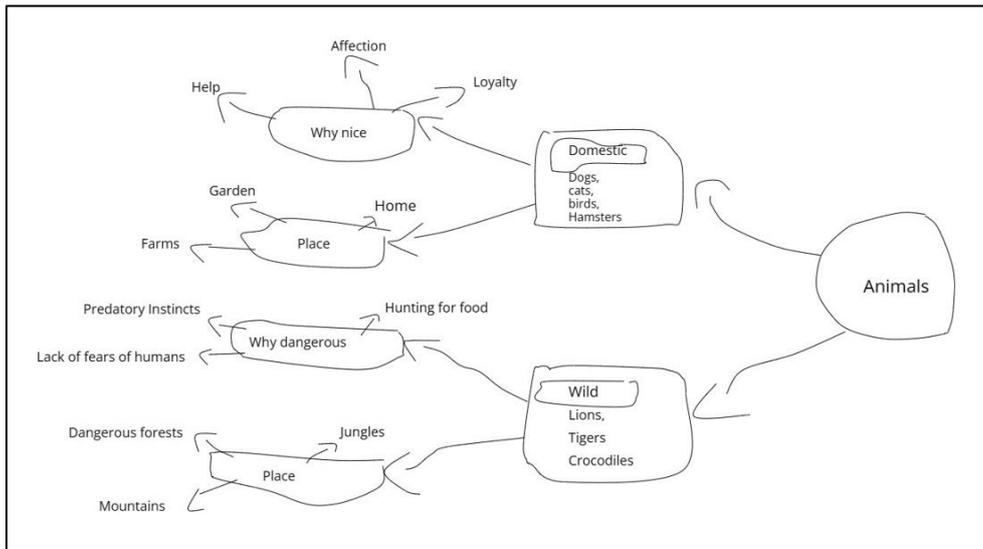
Prediction can also improve comprehension by allowing learners to make connections between their prior knowledge and the new information being presented. Teachers can facilitate students' active involvement in the reading process and cherish their engagement with the text by employing guessing techniques, particularly in the before-reading phase. Prediction can additionally increase learners' comprehension by enabling them to establish correlations between the newly presented information and their pre-existing knowledge. Educators can prioritize the use of guessing techniques, mainly with learners, who may encounter difficulties with comprehension and retention.

2.4.2 Previewing

Before diving into a reading text, students can benefit from engaging in pre-reading activities. One such activity is previewing, which involves scanning the text's titles, headings, and pictures and reading the first few paragraphs as well as the last paragraph (Alipanahi, 2014). This allows teachers to help students get a better idea of what the text is about and activate their formal and content schemata. Formal schemata refer to the reader's knowledge of the language and its structure, while content schemata refer to the reader's background knowledge of the topic. Previewing helps to familiarize students with the topic beforehand, making it easier for them to understand the text when they start reading it in detail. Research has shown that previewing a text through a strategy called THIEVES can greatly enhance comprehension. Al-Faki (2013) conducted a study which demonstrated the effectiveness of this approach. In addition, this reading sub-skill can help students identify any unfamiliar vocabulary or concepts that they may need to research further before reading the text. In general, engaging in pre-reading activities like previewing can greatly benefit students' reading comprehension and enable them to read more effectively and efficiently.

2.4.3 Semantic Mapping

Semantic mapping is another helpful pre-reading activity, as described by Maccagno (2019). His study found that ELL students who participated in the semantic mapping intervention had better reading comprehension scores than those in the control group. This activity not only pre-teaches vocabulary but also assesses the students' prior knowledge or schema availability on the topic. Students brainstorm about the reading topic as the information is presented on a graphic "map," making associations and building schemata and vocabulary that they may not yet possess. The map becomes a thorough summary of the concepts and vocabulary that students will encounter in the reading. Here is a good example of a mind-mapping activity on a reading text titled "Animals" for beginner students:



Dingler (2017) discovered that various forms of text visualizations, such as mind maps and highlighting, can assist readers in obtaining a comprehensive knowledge of the material, improving comprehension, and reducing the time required for reading. To ensure maximum effectiveness, it is significant for educators to know something about the students' interests and backgrounds so that the selected texts contain material that is likely to be familiar and interesting to them.

2.4.4 Pre-teach Vocabulary

When teaching reading, educators frequently overlook pre-teaching vocabulary, which is a crucial sub-skill (Moghadam 2012). At the very beginning, ESL/EFL teachers introduce essential vocabulary words to students before embarking on their reading journey. The previous studies acknowledge the myriad advantages of this practice in refining comprehension and performance in reading tasks (Alamri & Rogers, 2018; Hilgenkamp, 2019; Mousavian & Siahpoosh, 2018b; Past, 2019). This technique exerts its maximal impact during the pre-reading phase, precisely when students grapple with discerning the text's core concept and contextual nuances.

The crucial importance of pre-teaching vocabulary also rests in its ability to enhance students' reading comprehension by providing them with a strong basis for understanding the text. Beck et al. (2013) accentuate that understanding the meanings of individual words is crucial for comprehending the full text effortlessly. Mastery of the definitions of important vocabulary items enables pupils to comprehend the full text, therefore promoting increased involvement and drive during the reading procedure. Laraba, (2010) argues that there is a strong connection between reading comprehension and vocabulary proficiency. According to the author, vocabulary knowledge has a greater impact on reading comprehension than syntax and basic reading abilities. Chowdhury (2021) argues that pre-teaching vocabulary may conflict with learner autonomy. Yet, teachers can still selectively use it to facilitate comprehension and promote the use of the target language.

In addition, the process of pre-teaching vocabulary boosts language enrichment and competency improvement. An important responsibility of instructors at the pre-reading stage is to assist in the facilitation of the reading process. This occurs when teachers introduce their pupils to unfamiliar terminology and its corresponding definitions. This approach actively stimulates the growth of their lexicon and the enhancement of their general linguistic abilities. It is essential to recognize that pre-teaching vocabulary is valuable not only in the beginning stages of reading but should also be repeated throughout the reading process. This method guarantees that learners maintain a constant level of involvement and motivation as they regularly acquire new vocabulary and understand its contextual significance.

2.4.5 Visual Aids

While traditional teaching methods often focus solely on text-based materials, incorporating visual aids into reading instruction can be an effective way to improve comprehension, especially for beginner levels. Visual aids are any tools or resources that help to illustrate or explain the content being read. This can include images, diagrams, charts, and graphs, among others. Instructors should use pictures or flashcards during the pre-reading stage to make reading more interactive and engaging, particularly for learners who struggle with traditional text-based materials. Illustratively, an instructive study conducted by Brown (2010) highlights the merits of incorporating visualization tools in educational environments. This sub-skill is seen as pivotal in augmenting learners' access to information and optimizing how they retrieve it. Brown's research delves into the intricate dynamics of how visualization tools, when used strategically, can significantly impact the educational landscape by providing learners with enriched cognitive frameworks for assimilating and recalling information.

One of the primary virtues of using visual aids during the pre-reading stage is that they can provide context for the text. When teachers start the reading lesson by presenting information in a visual format, learners can better understand the content and how it relates to their prior knowledge and experiences (Ling, 2020). This can be particularly beneficial for beginner-level readers who may not have a strong foundation in the subject matter being presented. Another advantage of using visual aids is that they contribute to refining students' understanding of the reading text. In their study titled "The Effectiveness of Using Infographics as an Aid for Reading Comprehension," Manickam and Aziz (2020) have demonstrated that the utilization of infographics effectively develops reading comprehension among Malaysian students. The authors dispute that this intervention can be advantageous for teachers in assisting students to better understand texts and also allows them to enjoy their reading sessions. This is proven by another study conducted by Yunus (2013), which concluded that English teachers perceived visual aids as a motivational tool that increased students' interest in reading literary texts. This revelation underscores the potentially transformative role of visualization tools in facilitating a more effective and efficient learning environment.

2.4.6 Skimming and Scanning

Proficient reading can be fostered through the use of various methodologies, including skimming and scanning. Skimming involves quickly grasping the overall idea of a text, while scanning enables readers to identify specific information. These sub-skills are fundamental to improving comprehension during the pre- and while-reading stages. According to the findings of Fatmawan's (2023) research, the implementation of skimming and scanning techniques polished students' comprehension when performing reading tasks, specifically speed reading and reading improvement. Besides, a study conducted by Agustin in 2023 revealed that students who underwent instruction in skimming and scanning techniques exhibited a substantial improvement in their reading comprehension.

When you skim, you quickly read the text to get a general idea of what it is about. When you scan, you read the text slowly and deliberately to find specific details (Aritonang, 2019). Skimming is an essential component of the pre-while reading stages as it enables the reader to obtain a general idea of the text. For instance, students may encounter questions in the while reading stage, such as: reading the text quickly and choosing the best title:

The text is about:

- 1) Tom's favorite hobby,
- 2) Tom's favorite destination,
- 3) Tom's favorite animal.

This facilitates the reader's comprehension of the text's overall substance and objective prior to immersing themselves in the specifics. When perusing lengthy texts, such as textbooks or newspapers, where it can be difficult to swiftly determine the main points, skimming is especially beneficial.

Scanning is also vital in the pre and while-reading phases, because it allows the reader to locate particular details within the text. This can prove to be principally useful when instructors engage their students in purposeful reading or seeking precise information to address a query. As stated by Rouet (2018), scanning involves students examining a text for particular details such as dates, names, and locations. This reading sub-skill, which is defined as the capacity to quickly find specific facts and details, is considered valuable and is typically incorporated into development reading courses. An example of a useful scanning activity is the use of wh-questions presented in a table format. Teachers can design activities utilizing this method to assist students in pinpointing specific ideas by having them read the text and complete the table below.

People	Age	Job	Hobby
Bob			
Sarah			
James			
Ann			

By scanning, the teacher encourages their students to locate the pertinent information rapidly and then proceed to peruse it in greater depth. When integrating skimming and

scanning techniques into their instructional approaches, tutors can assist pupils in developing boosted reading proficiency and overall comprehension abilities.

2.4.7 Prior Knowledge

Engaging learners' pre-existing knowledge is another critical sub-skill that significantly contributes to the enhancement of reading comprehension. Learners' pre-existing information and experiences regarding a specific subject are referred to as prior knowledge. When engaging students' prior knowledge in the pre-reading phase, instructors can facilitate the integration of new information with their pre-existing understanding, thereby increasing both comprehension and retention (Hattan, 2023).

In an insightful investigation by Krause (2009), the significance of engaging students' prior knowledge in the pre-reading phase emerges as a key factor in the learning process. Krause's study highlights the value of using learners' prior knowledge at the beginning of a reading exercise to smoothly integrate new information with their previous understanding. The research explores the complex dynamics of how utilizing students' existing knowledge not only acts as cognitive support but also creates significant links between what is already understood and the new information being introduced. Past studies have confirmed that activating prior knowledge serves to facilitate comprehension of the text and establish a structure for acquiring new information. For instance, Kostons (2015) reported that activating prior metacognitive knowledge had a beneficial effect on text comprehension. Through leveraging prior knowledge, instructors can facilitate comprehension by connecting what students already know with what they need to know. In general, activating students' schemata is an indispensable sub-skill that has the potential to greatly foster reading comprehension and facilitate more profound learning.

2.4.8 Note-taking

In ESL/EFL classrooms, note-taking is an essential sub-reading skill used in the interactive instruction of reading, specifically during the reading stage. It entails the systematic and succinct capture and documentation of critical information from a given text, incorporating ideas, details, and key points. In addition to aiding in the development of learners' critical thinking, writing, and comprehension, note-taking also improves their ability to retain and recall information. As an elaboration, Boch (2006) underscored the significance of note-taking as an interdisciplinary learning aid, underlining its functions of preserving information, facilitating comprehension, and stimulating reflection on what is being taught. In a similar vein, Rahmani (2011) confirmed that teachers who equip their students with note-taking strategies enrich their understanding and recall of written material among EFL students.

EFL/ESL teachers who wish to advance their learners' academic performance and achieve language mastery must integrate note-taking into their teaching practices. This is especially true when it comes to comprehending and reading texts, newspapers, and other intricate materials. For instance, Ikhsan's (2015) research revealed the necessity for educators to employ suitable methodologies, such as note-taking, in order to humanize

reading exercises conducted in the classroom. Hence, note-taking ought to be a fundamental component of every English as a Second or Foreign Language (ESL/EFL) reading curriculum, since it enables learners to develop into more engaged, proactive, and reflective readers capable of deriving meaning from texts for the purpose of evolving their academic achievements. Tsai (2009), on the other hand, examined the impact of note-taking instruction on the reading comprehension of first-year EFL college students and discovered that note-taking teaching significantly upgraded reading comprehension.

2.4.9 Inference

During the reading stage, educators can employ various sub-skills to assist their students in extracting more information from the text. Inference is one such substantial sub-skill that profoundly contributes to promoting the engagement and interactivity of reading courses, particularly in EFL/ESL classes. It refers to one's ability to draw logical conclusions by utilizing both the information presented in the text and one's own experiences and expertise. According to McEwan (2004), inference is a metacognitive phenomenon that involves the use of various mental abilities to reach conclusions. This sub-skill primarily addresses the author's feelings, mood, attitude, or opinion about someone or something. In several reading texts, students may encounter reading activities such as:

"What is the author's opinion on illegal immigration?"

"How does the author feel about his childhood?"

"What is the author's attitude to video games?"

These inference questions aim to boost readers' comprehension of the text by filling in the information gaps that are not explicitly stated in the text. This is supported by O'Brien's (2015) study, which demonstrated how inference is critical in facilitating learners' understanding of the text by encouraging them to complete the missing information gaps that are not overtly mentioned in the text.

It is essential to possess proficiency in inference when it comes to teaching English as a Foreign or Second Language, as it encourages students to thoughtfully analyze the material and engage effectively. Namjoo (2014) found that inference is necessary in EFL/ESL lessons since it promotes critical thinking and active engagement with the text. Moreover, a meta-analysis conducted by Elleman (2007) revealed that education in inference successfully nurtured overall understanding, inferential comprehension, and literal comprehension among students in grades K–12. Less proficient readers benefited more from inference education in terms of literal comprehension compared to their more proficient peers. Tutors, by applying inference techniques, can help students foster their reading fluency, expand their vocabulary, and refine their comprehension abilities. Therefore, educators should integrate this technique into their reading teaching practices to polish student engagement and interactivity, ultimately developing their reading proficiency.

2.4.10 Summarizing

In ESL/EFL courses, summarizing is an essential sub-reading skill used to teach reading interactively, mainly in the while-post-reading stages, and specifically with advanced learners' levels. This sub-skill involves discovering and extracting significant points, concepts, and information from a text and reducing them into a concise, coherent, and accurate summary. Teachers use this technique to help learners understand the text's structure, link concepts to one another, recognize and emphasize main ideas, generalize, and memorize necessary elements. For instance, this strategy may be presented to students when they are required to complete reading activities like *“read the text carefully, and then summarize it between 60 and 65 words.”*

Summarizing helps students cultivate their comprehension, critical thinking, and writing skills, as well as their ability to retain and remember knowledge. Research has displayed that summarizing is a critical reading sub-skill that significantly increases the reading comprehension of Iranian EFL learners and improves first-year English language learners' grammar and writing skills (Shokrpour, 2013). Furthermore, summarizing is an important tool for EFL learners who need to master the language and improve their academic performance, exclusively while reading, understanding, and writing academic texts. Thus, it should be an integral part of any ESL/EFL reading curriculum to refine learners' capacity to extract meaning from texts and apply it to their learning and academic performance.

2.5 Reading Processing

2.5.1 Top-down Processing

Top-down processing in reading refers to the cognitive process in which the reader's comprehension of a text is influenced by their pre-existing knowledge, expectations, and the surrounding context. This method entails utilizing one's preexisting knowledge and expertise to formulate anticipations regarding the potential content of the text and subsequently employing those anticipations to facilitate comprehension. The purpose of using top-down processing is to help students develop their comprehension skills and advance their reading fluency. Hasanah (2016) concluded that there were some steps in applying top-down techniques; they were: evoking the students' thoughts through the title and the pictures, activating the students' appropriate prior knowledge, asking the students to make some predictions by using their background knowledge; and confirming their predictions.

A comprehensive investigation carried out by Fatemi (2014) demonstrates the significant importance of top-down processing as a cognitive technique in the field of reading methods. Fatemi's research emphasizes that top-down processing is an active cognitive technique intentionally used to augment interactivity and engagement during the reading experience. The study thoroughly examines the functioning of this cognitive technique as a conceptual framework, enabling readers to use their existing knowledge, experiences, and expectations to actively create meaning from the text. Through the utilization of top-down processing, readers participate in an interactive exploration

where their preexisting cognitive abilities actively influence their understanding of the content, promoting a more involved and collaborative reading encounter.

One of the key benefits of using top-down processing is that it allows students to approach reading as a meaningful and enjoyable activity. By utilizing their prior knowledge and contextual clues to understand new information, learners are more inclined to engage with the text and develop a deeper understanding of its content. Previous studies, such as Syabri's (2021) research, have shown that implementing the top-down strategy effectively improved students' reading comprehension. The analysis of the data revealed a significant difference between students' scores before and after being instructed with the top-down strategy, highlighting the efficacy of this approach.

This reading processing also helps students develop critical thinking skills as they learn to evaluate and analyze the information presented in the text (Indriyani, 2014). The author emphasizes that top-down processing not only aids in understanding but also stimulates the growth of pupils' critical thinking abilities. Students actively participate in a cognitive process by using top-down processing to evaluate and analyse the information offered in the text, rather than just passively receiving it. Osidak (2021), conversely, proposes a critical thinking model that incorporates literary texts in EFL classes, stressing the use of cognitive processes such as problem-solving and logical reasoning. Collectively, these papers underscore the importance of incorporating top-down processing techniques and strategies to enhance learners' critical thinking skills in reading lessons. Another important aspect of top-down processing is that it helps to build students' confidence and motivation (Syabri, 2021). By providing students with a framework for understanding and interpreting text, they are empowered to take an active role in their own learning and feel more confident in their ability to read and comprehend complex material.

2.5.2 Bottom-up Processing

Bottom-up processing is a cognitive strategy that involves the analysis and interpretation of new information by focusing on individual components and details. It moves logically from letters to sounds to words and finally to meaning (Padak, 2000).

The principal aim of incorporating bottom-up processing into reading instruction is to aid students in the progression of their decoding abilities and improve their capacity to identify specific words and their definitions. In an analysis of proficient adult readers, Holmes (2009) discovered a robust correlation between word recognition abilities, which are constituents of bottom-up processing, and reading comprehension. Through a methodical examination of the text's constituent elements—including letters, noises, and word structure—students fortify their ability to comprehend and analyze written texts. An additional critical element of bottom-up processing lies in its ability to hone the vocabulary and comprehension abilities of students. Instructors can help learners increase their vocabulary and improve their comprehension of the text by concentrating on specific words and their definitions. Consequently, this boost their comprehensive reading comprehension and converts reading into a more pleasurable and captivating endeavour. This is supported by the study conducted by Kendeou (2016), which

highlights that students can expand their vocabulary and improve their comprehension of the text by focusing on specific words and their definitions.

In contrast to the commonly held belief that bottom-up processing solely improves reading fluency and comprehension, Oliver's (2016) research presents a contrasting viewpoint. The study centers on adult English as a Second Language (ESL) learners and utilises both bottom-up and top-down approaches to vocabulary training in order to evaluate their influence on reading results. Contrary to the expected advantages, the study uncovers an unexpected result - bottom-up training has a detrimental effect on fluency and comprehension. Oliver's work questions the widely accepted belief that bottom-up techniques, which involve carefully deciphering individual words and linguistic features, consistently lead to better reading results. The findings of the study suggest a need to reassess the presumed benefits of bottom-up processing, especially when considering adult ESL learners.

2.6 Reading Strategies

2.6.1 Intensive Reading

Intensive reading is a strategy that involves analyzing and interpreting new information by focusing on individual components and details, mainly inside the classroom. According to Mart (2015), intensive reading allows a reader to carry out a detailed analysis inside the class, led by the teacher, in which vocabulary and grammar points are studied in a short passage. Additionally, Brown (2000) calls intensive reading "narrow reading" because it gets students to analyze several texts about the same or different topic. Instructors might place much emphasis on this approach, specifically with learners who are still developing their reading skills. The purpose of teachers employing intensive reading strategies is to help students cultivate their decoding skills and develop their ability to recognize individual words and their meanings. This is clarified by Wijaya's (2001) research which presents a strong case for including extensive reading in language education for Indonesian EFL learners. The established correlation between extensive reading, language proficiency, and increased interest in reading strengthens the educational significance of integrating this method into language courses. These insights can be used by educators and curriculum developers to create language program that are more successful and engaging. This will ultimately help Indonesian EFL learners become proficient and enthusiastic readers.

Another reason why teachers employ intensive reading in their ESL/EFL classrooms is to help learners become more confident and independent readers. For further illustration, once pupils foster their decoding skills and refine their ability to recognize individual words, they are able to read and understand the text more quickly and accurately. Besides, intensive reading is used to increase students' vocabulary and comprehension skills (Khazaal, 2019). In other words, by stressing on individual words and their meanings, students will be able to expand their vocabulary and develop a deeper understanding of the reading text. This will surely promote their general reading comprehension and make reading a more pleasurable and engaging activity.

2.6.2 Extensive Reading

Extensive reading is a pedagogical strategy that involves the consumption of vast quantities of text for the purpose of enjoyment and overall comprehension, often occurring outside of the traditional classroom setting. Unlike intensive reading, which concentrates on individual components and details of the text, extensive reading encourages readers to focus on the big picture and engage with the text on a deeper level.

Several past studies demonstrate that teachers' major purpose in employing extensive reading strategies is to promote students' overall reading skills and boost their ability to engage with the text. According to Wijaya (2021), extensive reading not only helps to improve learners' target language competence but also serves as a catalyst for boosting their reading enthusiasm and competencies. Through extensive reading, learners get exposed to a broad range of texts, which enables them to develop a better understanding of the target language by expanding their vocabulary, knowledge of sentence structures, and awareness of subtle linguistic details. This immersive approach allows learners to experience language in diverse circumstances, enhancing their comprehension and ability to use language more effectively. Moreover, Wijaya's research highlights the connection between extensive reading and the development of reading interests and skills. By exploring a diverse range of texts, readers have a greater chance of finding materials that align with their personal tastes and interests, resulting in a more engaged and motivated reading experience. Engaging with this text can help foster valuable skills such as comprehension, analytical prowess, and discerning thought. Likewise, Jun-li's (2007) study emphasizes the prominence of incorporating interactive teaching methods in extensive reading to enrich interactivity and engagement in reading lessons, which is highly advantageous for both teachers and students. Therefore, it is clear that an extensive reading strategy should be prioritized in English language education to cultivate learners' interest in reading and improve their reading skills.

Teachers should encourage students to read extensively because learning takes place not only inside but also outside the classroom. When students develop the habit of reading extensively, they will be able to build their vocabulary, comprehension, and fluency skills, which can help them become more confident and independent readers. Moreover, instructors can use this strategy to build students' interest and motivation to build a lifelong love of reading. This can also happen by suggesting topics that suit learners' preferences, ages, and levels. According to Atinuke (2018), utilizing an extensive reading strategy can significantly boost students' interest in reading texts. The study has shown that this strategy is particularly effective in stimulating learners' interest in reading comprehension, with female students demonstrating a greater interest in this area compared to boys. As a result, the study recommends that English language educators should give more value to the use of extensive reading strategies to encourage learners' interest in reading and dedicate more time in schools to extensive reading.

3. Research Methodology

3.1 Objective

This comprehensive review aims to perform a thorough analysis and synthesis of scholarly works in the field of interactive teaching approaches for reading. The main research objective encompasses publications published between 2000 and 2023, with a particular emphasis on examining detailed debates regarding reading stages, sub-skills, reading processing, and reading strategies within the framework of interactive teaching methods.

3.2 Data Collection

3.2.1 Database Selection

A careful choice was made to include well-regarded scholarly databases such as PubMed, Semantic Scholar, JSTOR, ERIC, PsycINFO, and Education Source. This selection guarantees access to a wide range of peer-reviewed academic literature.

3.2.2 Search Strategy

The creation of a refined search strategy entailed the deliberate use of relevant terms such as "teaching reading interactively," "reading stages," "sub-skills," "processing strategies," and "reading strategies". The use of Boolean operators (AND, OR) was carefully implemented to enhance searches, guaranteeing a precise and focused retrieval of articles.

3.2.3 Inclusion Criteria

The inclusion criteria were clearly established to include articles that clearly focused on interactive teaching methods for reading and extensively explored at least one of the identified elements: reading stages, sub-skills, processing strategies, and reading strategies. In addition, the review only included papers that were published in English.

3.2.4 Exclusion Criteria

Stringent criteria were used to eliminate articles that did not fall within the specified timeframe (2000–2023), those that were not available in their entirety, or those that did not have a significant emphasis on interactive teaching approaches for reading.

3.3 Data Analysis

3.3.1 Article Screening

The initial screening procedure consisted of a thorough examination of titles and abstracts to discover papers that matched the predetermined criteria for inclusion, ensuring a careful selection of relevant studies.

3.3.2 Full-text Review

The selected publications were carefully examined to determine their relevance and compliance with the research objectives. Only the articles that met the specified criteria for inclusion were kept for further study.

3.3.3 Data Extraction

The process of gathering relevant information was conducted in a methodical and comprehensive manner. This included obtaining details such as the author(s), year of publication, study design, methodology used, significant findings, and the implications associated with reading stages, sub-skills, processing strategies, and reading strategies.

3.4 Quality Evaluation

The articles that were chosen for inclusion went through a thorough quality evaluation procedure. This approach took into account aspects such as the trustworthiness of the journals, the methods used, the size of the samples, the empirical evidence, and how relevant the findings were to the study aims. The review technique followed strict selection criteria to contain only high-quality works that focused on the interactive teaching of reading.

Overall, the review methodology employed rigorous selection criteria to ensure the inclusion of high-quality articles focused on teaching reading interactively. The systematic approach aimed to provide a comprehensive overview of research findings relevant to reading stages, sub-skills, top-down and bottom-up processing, and reading strategies within the specified timeframe.

4. Discussion

4.1 1st Research Question: How do the specific elements of pre-while-post reading stages individually contribute to the comprehension and engagement of students in reading activities?

The first research question thoroughly investigates the precise impact of individual components in the pre-while-post reading phases on students' understanding and involvement in reading tasks. The study reveals that the sequence of these reading stages has a substantial impact on students' understanding and pleasure in reading. Pre reading activities such as activating prior knowledge and setting a purpose lay the groundwork for pupils to achieve deeper comprehension (Hashemi, 2015). Concurrently, during the stages of reading, students actively participate in the text by using tactics such as questioning, inference and summary. After reading, collaborative activities are used to enhance critical thinking skills to link between the reader's experience and the text's content. This comprehensive approach not only improves understanding but also nurtures a favourable reading experience, establishing a sense of rapport between students and the content. Clearly, previous research supports the importance of pre-while-post-reading stages in fostering comprehension and engagement. Anaktoty (2020), McEwan (2004), and Vaezi (2006) all underscore the crucial significance of these stages in

the reading process. Nevertheless, Sandy (2022) proposes a crucial aspect, indicating that although these stages can upgrade understanding, their influence on engagement may differ depending on individual interests and motivations. This argument highlights the intricate nature of how students react to different phases of reading, stressing the necessity for individualized and flexible teaching methods.

The significance of these discoveries has a deep impact on the field of literature education, indicating a possible approach to nurturing a long-lasting enthusiasm for literature. By implementing efficient pre-while-post reading strategies, educators are able to empower students to derive deeper meaning from the text, going beyond its surface-level content. This not only enriches understanding but also ignites a sincere curiosity about exploring other literary genres. The emotional bond formed throughout these stages establishes the basis for a lasting enthusiasm for literature, as pupils develop an understanding and admiration for the intricate depth inherent in every reading encounter.

4.2 2nd Research Question: What is the impact of individual sub-reading skills on the interactive nature of reading lessons, and how do they collectively enhance students' comprehension and engagement?

The second research question examines the specific influence of particular sub-reading skills on the interactive nature of reading courses, with an emphasis on how they together contribute to improving students' comprehension and engagement. Expanding on earlier studies, a thorough understanding of the crucial role that particular sub-skills play in boosting interactivity and engagement throughout reading classes emerges. This is compatible with Ali's (2018) study that emphasizes the prominence of these skills, while Noan (2002), and Dingler (2017) accentuate the significance of prediction, prior knowledge activation, and semantic mapping in cultivating reading engagement and comprehension. These sub-skills function as cognitive tools, aiding in the creation of mental models and making links between written material and current knowledge.

On the other hand, Anyiendah's (2020) opposing perspective adds an important aspect to the conversation, underlining the vital need for comprehensive preparation for English language educators. More precisely, the focus on precise execution of forecasting abilities appears to be a critical element in refining learners' understanding of written material. This viewpoint encourages contemplation of the educational elements related to specific talents, accentuating the prominence of focused teacher instruction to achieve the best possible execution.

The combination of these viewpoints concentrates on the complex and diverse characteristics of sub-reading skills and their influence on interactive reading instruction. Incorporating a variety of sub-skills, such as prediction, activating schemata, using visuals, creating semantic maps, skimming and scanning, making inferences, and summarising, equips educators with a comprehensive set of tools. Through the deliberate integration of these subsidiary abilities, instructors can create a setting in which students engage actively, exchange viewpoints, and collectively delve into the intricacies of the text. This comprehensive approach not only enhances the overall reading experience but

also conforms to modern pedagogical methods that prioritize dynamic and captivating learning settings.

4.3 3rd Research Question: What is the dynamic interplay between top-down and bottom-up processing strategies in reading instruction, and how does this influence students' comprehension and critical thinking skills?

The third research question delves into the convoluted interplay between top-down and bottom-up processing strategies in reading instruction, exploring their influence on students' reading proficiency and critical thinking skills. Kintsch's (2005) study provides evidence for the mutually beneficial connection between these tactics, highlighting their cooperative function in improving comprehension and critical thinking, especially during the pre-reading and post-reading phases. This study acknowledges the importance of top-down processing, which is influenced by advanced cognitive functions, in the formation of ideas, structuring thinking, and creating a logical framework. In contrast, bottom-up processing focuses on specific elements such as grammar, syntax, and word choice, which together contribute to the development of comprehensive writing skills.

This dynamic interaction not only guarantees clear thinking and effective communication, but also boosts the subtle details, improving the overall quality of reading skills. The symbiotic relationship between students and critical thinking fosters the development of skills such as information synthesis, argument evaluation, and the presentation of well-reasoned opinions. Nevertheless, Lovrich (2007) questions the overreliance on top-down processing in reading and warns against potential obstacles, especially in problem-solving scenarios, caused by cognitive biases that may emerge.

Recently, there has been a dominant conviction in the effectiveness of bottom-up processing to nurture reading fluency and comprehension. In contrast to this idea, Oliver (2016) gives an opposing viewpoint, precisely examining adult ESL learners. The study assesses the influence of both bottom-up and top-down methods of vocabulary instruction on reading results, uncovering an unforeseen adverse consequence of bottom-up training on fluency and comprehension. This unforeseen discovery contradicts established beliefs, highlighting the necessity for a subtle and sophisticated approach. Oliver's research underlines the significance of thoroughly evaluating the effects of various training techniques on the reading abilities of ESL learners. Consequently, additional investigation in this field is required.

Essentially, combining top-down and bottom-up processing techniques offers pupils the necessary technical abilities for proficient reading and the analytical ability to engage critically with various reading assignments. This interaction establishes the basis for developing a group of readers who are skilled at expressing ideas clearly and profoundly, stressing the intricate and diverse aspects of effective writing education.

4.4 4th Research Question: How do intensive and extensive strategies help promote students' understanding and passion for reading?

The fourth research question dives into the influence of intensive and extensive reading techniques on pupils' comprehension and enthusiasm for reading arises as a significant feature warranting thorough examination. Intensive strategies, focusing deeply on a limited number of texts, offer depth of understanding, while extensive strategies, engaging with a wide range of materials, promote breadth of knowledge and passion for reading.

Multiple empirical research, such as the thorough investigations conducted by Atinuke (2018) and Virgiyanti (2020), put emphasis on the significant impact of these tactics on students' reading encounters. In 2018, Atinuke conducted a study that explored the subtle advantages of both extended and intensive reading methods. The research thoroughly examines the results of different tactics, offering valuable insights into their individual impacts on understanding and their distinct roles in fostering a real passion for reading. Atinuke's research enhances the current body of knowledge on reading instruction by examining how various tactics impact students' involvement with written information. In a similar vein, Virgiyanti (2020) boosts and expands upon these discoveries. Virgiyanti examines the various effects of prolonged and rigorous reading practices, concentrating on the cognitive and emotional aspects of reading. The study elucidates how these tactics not only augment understanding but also ignite a genuine ardour for reading. Virgiyanti's research provides a detailed comprehension of the interaction between reading practices and the emotional bond that students form with literature. These studies collectively support the idea that good reading techniques are not just teaching tools, but rather they act as catalysts for a transformed reading experience. The comprehensive examinations conducted by Atinuke and Virgiyanti offer significant perspectives on the ways in which extensive and rigorous reading techniques impact understanding and cultivate a true passion for interacting with a wide range of literary works.

Contrary to the conventional optimistic perspective on extensive reading, it is essential to acknowledge the difficulties faced by educators when putting it into practice. Macalister's (2010) findings reveal a notable discrepancy in how teachers understand and implement extensive reading strategies. This disparity is a significant obstacle for educators who aim to smoothly incorporate considerable reading into their teaching methods. In his study, Robb (2002) acknowledges the challenges English teachers face in Asian cultures, which is particularly significant. The results of this study indicate that students in these particular situations may not experience noticeable advantages from engaging in extensive reading activities. This statement questions the commonly accepted belief that prolonged reading is universally effective and highlights the importance of recognizing the differences in educational environments. The challenges observed in implementing comprehensive reading strategies emphasize the need for a more equitable strategy that integrates both intensive and extensive reading techniques. Instructors should be cautious about having excessively optimistic beliefs regarding the benefits of extensive reading, as Macalister's observations emphasize the potential

difficulties that may arise. Instead, careful consideration should be given to how extensive reading can be effectively integrated into different teaching situations, taking into account the unique needs and characteristics of each student and classroom.

5. Conclusion

In synthesizing the multifaceted aspects of teaching reading interactively, this research journey has unveiled a rich tapestry of methodologies and elements that significantly influence the efficacy of reading instruction. The in-depth study of reading stages, sub-reading skills, top-down and bottom-up processing, and intensive and extensive reading strategies shows how interactive reading pedagogy is shaped by complex forces.

5.1 Summary

The common themes from previous research studies show how indispensable pre- and while-reading stages are for improving understanding and interest. Moreover, sub-reading skills, such as prediction, prior knowledge activation, pre-teach vocabulary, are highlighted for their substantial contributions to enriching reading experiences. The interplay between top-down and bottom-up processing strategies emerges as a pivotal factor in shaping critical thinking and comprehension. Additionally, the balanced integration of intensive and extensive reading strategies illustrates the need for a nuanced approach that fosters both depth of understanding and a passion for reading.

5.2 Implications

The findings underline the pressing need for educators to embrace a holistic approach that merges the diverse components of interactive reading. By integrating pre-reading stages, leveraging sub-reading skills, balancing top-down and bottom-up strategies, and amalgamating intensive and extensive reading approaches, teachers can create an environment that not only polishes comprehension but also nurtures students' inherent passion for reading. This approach refines an engaged and active reading culture that promotes deeper understanding and sustains enthusiasm for literature.

5.3 Limitations

The exploration of teaching reading interactively, though comprehensive, is not immune to limitations. The constraints inherent in this review encompass several aspects. The temporal constraints imposed, centering on articles from 2000 to 2023, might omit earlier foundational works and recent emergent trends, potentially influencing the breadth of insights. Furthermore, the selection bias inherent in the review process could inadvertently exclude valuable articles, potentially restricting the diversity of perspectives. Publication bias, favouring prominent journals and specific databases, might overlook valuable contributions from smaller or non-indexed sources. Moreover, the heterogeneity of methodologies and contexts across selected studies might pose challenges in synthesizing findings or deriving cohesive conclusions. These constraints

underscore the need for a deep interpretation of the reviewed literature and accentuate potential gaps within the scope of the research.

5.4 Future Research

Looking forward, future research should delve deeper into the individualized impacts of these interactive elements on miscellaneous learner populations. Besides, exploring the role of technology in augmenting interactive reading strategies could offer innovative avenues for personalized and engaging learning experiences. Investigating the potential challenges and benefits of implementing these strategies in various educational contexts would offer valuable insights for effective implementation. Moreover, the longitudinal effects of interactive reading approaches on students' overall literacy skills and lifelong reading habits warrant further exploration.

This synthesis of research not only reaffirms the multifaceted nature of teaching reading interactively but also concentrates on the imperative for educators to embrace a balanced, diversified, and interactive approach. The ongoing exploration and application of these findings hold promise for shaping a generation of readers who are not just proficient but passionate about the transformative power of literature.

Conflict of Interest Statement

The author declares no conflicts of interest.

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References

- Arcos, E.B.P. (2018). Reading: An overview prior to reading comprehension. <https://www.semanticscholar.org/paper/Reading%3A-An-overview-prior-to-reading-comprehension-Arcos/4693613490bc3560fa902b9d8266bd6bcbf07e4a>
- Agustin, L., Wisudaningsih, E.T., & Fatmawati, R. (2023). Exploring How Skimming and Scanning Fosters EFL Students' Reading Comprehension at an English Club Senior High School in Indonesia. Retrieved from <https://jurnal.fs.umi.ac.id/index.php/tamaddun-life/article/view/309/210>
- Aidil, M. (2014). A Descriptive Study on Teaching Reading Comprehension Strategies at Junior High School Students SMPN 3 Sabang. Unpublished Thesis. Syiah Kuala University, Banda Aceh.
- Al-Faki, I.M., & Siddiek, A.G. (2013). The Role of Background Knowledge in Enhancing Reading Comprehension. *World Journal of English Language*, 3, 42.

-
- Alamri, K., & Rogers, V. (2018). The effectiveness of different explicit vocabulary teaching strategies on learners' retention of technical and academic words. *Language Learning Journal*, 46(5), 622–633. <https://doi.org/10.1080/09571736.2018.1503139>
- Alipanahi, F. (2014). *Pre-reading Activities and Reading Comprehension*. <https://www.semanticscholar.org/paper/Pre-reading-Activities-and-Reading-Comprehension-Alipanahi-Mahmoudi/741a8b99fc465f5b4ecde78ce73f3ca48384a97a>
- Alyousef, H.S. (2006). Teaching reading comprehension to ESL/EFL learners. Retrieved from <https://www.readingmatrix.com/articles/alyousef/article.pdf>
- Anaktototy, K., & Huwae, M. (2020). Assessing Teacher's Perception in the Use of Pre-Reading Activities in EFL Classroom. Retrieved from <https://ojs.unm.ac.id/eralingua/article/view/12532>
- Anyiendah, M.S., Odundo, P.A., & Kibuyi, A. (2020). Prediction Skills and Its Influence on Learners' Achievement in Reading Comprehension: A Case of Vihiga County, Kenya. *English Language Teaching*, v13 n10 p139-157, Retrieved from <https://eric.ed.gov/?id=EJ1272198>
- Aritonang, I.R., Lasmana, S., & Kurnia, D.T. (2019). The Analysis of Skimming and Scanning Technique to Improve Students in Teaching Reading Comprehension. Project, *Professional Journal of English Education* 1(2). Retrieved from <https://journal.ikipsiliwangi.ac.id/index.php/project/article/view/458>
- Atinuke, O.M. (2018). Influence Of Extensive Reading Strategy on Students' Interest in Reading Comprehension. *AU EJournal of Interdisciplinary Research (ISSN: 2408-1906)*, 3(2). Retrieved from <http://www.assumptionjournal.au.edu/index.php/eJIR/article/view/4149>
- Beck, I.L., McKeown, M.G., & Kucan, L. (2013). Rationale for Robust Vocabulary Instruction. In *Bringing Words to Life* (2nd ed.). The Guilford Press.
- Boch, F., & Piolat, A. (2006). Note Taking and Learning: A Summary of Research. Retrieved from <https://wac.colostate.edu/journal/vol16/boch.pdf>
- Brown, C.A., & Banas, J.R. (2010). Use of Open Source Visualization Tools to Enhance Reading Comprehension and Concept Attainment. Retrieved from https://members.aect.org/pdf/Proceedings/proceedings10/2010I/10_07.pdf
- Brown, H.D. (2000). *Principles of Language Learning and Teaching* (4th ed.). White Plains, NY: Pearson Education.
- Chowdhury, T.A., & Ara, A. (2021). Pre-teaching Vocabulary in Teaching Reading Skill: A Hindrance to Learner Autonomy? *Indonesian TESOL Journal*. 3(2):123-132. Retrieved from https://www.researchgate.net/publication/357323317_Pre-teaching_Vocabulary_in_Teaching_Reading_Skill_A_Hindrance_to_Learner_Autonomy
- Damico, J. (2005). Multiple Dimensions of Literacy and Conceptions of Readers: Toward a More Expansive View of Accountability. *The Reading Teacher*, 58, 644-652. Retrieved from <https://www.jstor.org/stable/20204287>

- Dingler, T., Kern, D., Angerbauer, K., & Schmidt, A. (2017). Text Priming Effects of Text Visualizations on Readers Prior to Reading. IFIP TC13 International Conference on Human-Computer Interaction.
- Elleman, A.M. (2017). Examining the Impact of Inference Instruction on the Literal and Inferential Comprehension of Skilled and Less Skilled Readers: A Meta-Analytic Review. *Journal of Educational Psychology*, 109, 761–781. Retrieved from <https://psycnet.apa.org/record/2017-06326-001>
- Fatemi, A.H., Vahedi, V.S., & Seyyedrezaie, Z.S. (2014). The Effects of Top-down/Bottom-up Processing and Field-dependent/Field-independent Cognitive Style on Iranian EFL Learners' Reading Comprehension. *Theory and Practice in Language Studies*, 4, 686-693. Retrieved from <https://www.academypublication.com/issues/past/tpls/vol04/04/04.pdf>
- Fatmawan, A., Dewi, N. P., & Hita, I.P.A. (2023). Skimming and Scanning Technique: Is It Effective for Improving Indonesian Students' Reading Comprehension?. *EDUSAINTEK: Jurnal Pendidikan, Sains Dan Teknologi*, 10(3), 1181 - 1198. <https://doi.org/10.47668/edusaintek.v10i3.897>
- Grabe, W. (2009). Reading in a second language: Moving from theory to practice. Retrieved https://books.google.ro/books/about/Reading_in_a_Second_Language.html?id=prvRHZ7DrIcC&redir_esc=y
- Hasanah, M. (2016). The Implementation of Top-Down and Bottom-up Techniques to Teach Reading Descriptive Text at 8th Grade of MTS Terpadu Kalipang Timur, Grati. Retrieved from <https://docplayer.net/234592995-The-implementation-of-top-down-and-bottom-up-techniques-to-teach-reading-descriptive-text-at-8-th-grade-of-mts-terpadu-kalipang-timur-grati-thesis.html>
- Hashemi, A., Mobini, F., & Karimkhanlooie, G. (2015). The Impact of Content-based Pre-reading Activities on Iranian High School EFL Learners' Reading Comprehension. *Journal of Language Teaching and Research*, 7, 137-145. Retrieved from <http://www.academypublication.com/issues2/jltr/vol07/01/15.pdf>
- Hattan, C., Alexander, P. A., & Lupo, S. M. (2023). Leveraging What Students Know to Make Sense of Texts: What the Research Says About Prior Knowledge Activation. *Review of Educational Research*, 0(0). <https://doi.org/10.3102/00346543221148478>
- Hilgenkamp, J. A. (2019). How Does Pre-teaching of Vocabulary and the Use of Technology Increase Student Learning in Science [University of Nebraska - Lincoln]. Retrieved from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1117&context=teachlearnstudent>
- Holmes, V. (2009). Bottom-up processing and reading comprehension in experienced adult readers. *Journal of Research in Reading*, 32, 309-326. Retrieved from <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9817.2009.01396.x>
- Horder, W. (2004). Reading and Not Reading in Professional Practice. *Qualitative Social Work*, 3(3), 297-311. <https://doi.org/10.1177/1473325004047174>

- Ikhsan, M.K. (2015). The Alternative Strategies for Teaching Reading Skill for EFL Students. *Komposisi Jurnal Pendidikan Bahasa Sastra dan Seni* 18(1):107, Retrieved from https://www.researchgate.net/publication/321425666_THE_ALTERNATIVE_STRATEGIES_FOR_TEACHING_READING_SKILL_FOR_EFL_STUDENTS
- Indriyani, T.N. (2014). The Effect of Students' Perception on The Teachers' Top-Down Approach in Teaching Reading at The Seventh Grade Students of MTS Negeri Kebumen 2 in the Academic Year 2012/2013. Retrieved from <http://ejournal.umpwr.ac.id/index.php/scripta/article/view/1533>
- Jehan, S., Khan, F., & Wahab, A. (2023). Unlocking the Power of Schema Theory based Pre-Reading Activities: Enhancing Reading Comprehension at the Intermediate Level. *Global Social Sciences Review*. Retrieved from <https://www.gssjournal.com/article/unlocking-the-power-of-schema-theory-based-prereading-activities-enhancing-reading-comprehension-at-the-intermediate-level>
- Jose, R., & Dharma Raja, B. (2011). Teachers' Role in Fostering Reading Skill: Effective and Successful Reading. *Journal on English Language Teaching*, 1(4) 1-10. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1071046.pdf>
- Kendeou, P., McMaster, K.L., & Christ, T.J. (2016). Reading Comprehension: Core Components and Processes, 3, 62 - 69. Grantee Submission, Policy Insights from the Behavioral and Brain Sciences v3 n1 p62-69 2016 Retrieved from *Grantee Submission*, Policy Insights from the Behavioral and Brain Sciences v3 n1 p62-69 2016 <https://eric.ed.gov/?id=ED620272>
- Khazaal, E.N. (2019). Impact of Intensive Reading Strategy on English for Specific Purposes College Students' in Developing Vocabulary. *Arab World English Journal*, 10 (2) 181-195. DOI: <https://dx.doi.org/10.24093/awej/vol10no2.15>
- Kostons, D., & van der Werf, G.P. (2015). The effects of activating prior topic and metacognitive knowledge on text comprehension scores. *The British journal of educational psychology*, 85 3, 264-75. Retrived from Kostons, D., & van der Werf, G. (2015). The effects of activating prior topic and metacognitive knowledge on text comprehension scores. *The British journal of educational psychology*, 85(3), 264–275. <https://doi.org/10.1111/bjep.12069>
- Kuperberg, G.R., & Jaeger, T.F. (2016). What do we mean by prediction in language comprehension?. *Language, cognition and neuroscience*, 31(1), 32–59. <https://doi.org/10.1080/23273798.2015.1102299>
- Laraba, S. (2010). *The Influence of Vocabulary Knowledge on Reading Comprehension Achievements*. <https://www.semanticscholar.org/paper/The-Influence-of-Vocabulary-Knowledge-on-Reading-Laraba/28c79f0e28d884c78bfc8f7e5ca92c5a76f322d9>
- Ling, Q. (2020). On Outcome-Based English Visualizing Reading Strategy. 2019 3rd International Conference on Advancement of the Theory and Practices in Education (ICATPE 2019), Retrieved from

- https://webofproceedings.org/proceedings_series/ESSP/ICATPE%202019/TPE05049.pdf
- Lovrich, D. (2007). Classroom Applications of Top-Down and Bottom-Up Processing. *The Science Teacher*, 74, 28-32. Retrieved from <https://eric.ed.gov/?id=EJ758682>
- Luke, A. (2011). *Comprehension and content: planning literacy in low socioeconomic and culturally diverse schools*. <https://www.semanticscholar.org/paper/Comprehension-and-content%3A-planning-literacy-in-low-Luke-Dooley/bcc3fb5b5c8cbb666fedcc462d6b884601e1ca69>
- Macalister, J. (2010). Investigating teacher attitudes to extensive reading practices in Higher Education: Why isn't everyone doing it? *RELC Journal*, 41(1), 59–75. <https://doi.org/10.1177/0033688210362609>
- Maccagno, L.M. (2019). Effectiveness of Semantic Mapping in Increasing Reading Comprehension for English Language Learners. Retrieved from https://digitalcommons.csumb.edu/cgi/viewcontent.cgi?article=1661&context=caps_thes_all
- Manickam, R.A., & Aziz, A. (2020, May 3). The Effectiveness of using Infographics as an Aid for Reading Comprehension. *Open Journal of Science and Technology*. <https://doi.org/10.31580/ojst.v3i1.1360>
- Mart, C. (2015). Combining extensive and intensive reading to reinforce language learning. *Journal of Educational and Instructional Studies in the World*, 5(4), 85-90. Retrieved from https://www.researchgate.net/publication/329268348_Combining_Extensive_and_Intensive_Reading_to_Reinforce_Language_Learning
- McEwan, E.K. (2004). *Seven Strategies of highly effective readers: Using cognitive research to boost K-8 achievement*. Thousand Oaks, CA: Corwin Press Retrieved from <https://eric.ed.gov/?id=ED495516>
- McNamara, D.S., & Kendeou, P. (2011). Translating Advances in Reading Comprehension Research to Educational Practice. *International Electronic Journal of Elementary Education*, 4, 33-46. Retrieved from https://www.researchgate.net/publication/281894454_Translating_advances_in_reading_comprehension_research_to_educational_practice
- Moghadam, S.H., Zainal, Z., & Ghaderpour, M. (2012). A Review on the Important Role of Vocabulary Knowledge in Reading Comprehension Performance. *Procedia - Social and Behavioral Sciences*, 66, 555-563. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042812052858>
- Mousavian, S., & Siahpoosh, H. (2018b). The Effects of Vocabulary Pre-teaching and Pre-questioning on Intermediate Iranian EFL Learners' Reading Comprehension Ability. *International Journal of Applied Linguistics and English Literature*, 7(2), 58. <https://doi.org/10.7575/aiac.ijalel.v.7n.2p.58>
- Muslaini. (2017). Strategies in Teaching Reading Comprehension. *Universitas Syuah Kuala. Banda Aceh. English Education Journal* 14(3), Retrieved from <https://jurnal.usk.ac.id/EEJ/article/view/6129>

-
- Namjoo, A., & Marzban, A. (2014). A New Look at Comprehension in EFL/ESL Reading Classes. *Procedia - Social and Behavioral Sciences*, 116, 3749-3753. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042814008520>
- Nolan, & Charles, W. (2002). A Comparison of the Effects of Two Schema Theory-Based Pre-Reading Activities in Spanish: Key Word Discussion and Vocabulary Review. Retrieved from <https://apps.dtic.mil/sti/tr/pdf/ADA408585.pdf>
- Noor, N.M. (2011). Reading habits and preferences of EFL post graduates: A case study. *Indonesian Journal of Applied Linguistics*, 1(1), 1-9. Retrieved from <https://pdfs.semanticscholar.org/eda2/c92499197b8063edc1de0f87d018a5d6407b.pdf>
- Nurhamidah, S. (2018). The Analysis of Teachers' Strategies in Teaching Reading Comprehension at Sman 2 Padang Bolak, Universitas Syiah Kuala. Banda Aceh. Retrieved from <https://jurnal.iain-padangsidimpuan.ac.id/index.php/TZ/article/view/1149>
- Oliver, R., & Young, S. (2016). Improving reading fluency and comprehension in adult ESL learners using bottom-up and top-down vocabulary training. *Studies in Second Language Learning and Teaching*, 6, 111-133. Retrieved from <https://eric.ed.gov/?id=EJ1134397>
- Osidak, V., & Nesterenko, N. (2021). Building Critical Thinking Skills Through Literary Texts in EFL Classes. *Ars Linguodidacticae* 4(2).
- Rasinski, T.V. (2000). From Phonics to Fluency: Effective Teaching of Decoding and Reading Fluency in the Elementary School. Retrieved from http://www.timrasinski.com/presentations/phonics_to_fluency.pdf
- Past, T. (2019). Pre-Teaching Vocabulary for Improving Reading Comprehension. *Temple University Japan Studies in Applied Linguistics*, 122, 37-46.
- Rahmani, M., & Sadeghi, K. (2011). Effects of Note-Taking Training on Reading Comprehension and Recall. *The Reading Matrix: an International Online Journal*, 11, 116-128. Retrieved from https://www.readingmatrix.com/articles/april_2011/rahmani_sadeghi.pdf
- Robb, T. (2002). Extensive reading in an Asian context – An alternative view. *Reading in a Foreign Language*, 14(2), 146-147. Retrieved from <https://scholarspace.manoa.hawaii.edu/server/api/core/bitstreams/123c29fc-1791-4737-8a81-9647e2aaf549/content>
- Rosowsky, A. (2001). Decoding as a Cultural Practice and its Effects on the Reading Process of Bilingual Pupils. *Language and Education*, 15, 56 - 70. Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/09500780108666799>
- Rouet, J., & Potocki, A. (2018). From reading comprehension to document literacy: learning to search for, evaluate and integrate information across texts / De la lectura a la alfabetización documental: aprender a buscar, evaluar e integrar información de diversos textos. *Infancia y Aprendizaje*, 41, 415 - 446. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/02103702.2018.1480313>

- Sandy, F., & Fidian, A. (2022). Sustaining Engagement during Reading Activities. *International Journal of Education, Language, and Religion*, 4(1). Retrieved from <http://jurnal.utu.ac.id/IJELR/article/view/5417>
- Shamchuk, L., & Plouffe, L. (2013). MacEwan University Library's pedagogical shift: Using active learning activities during first-year information literacy sessions. *College & Research Libraries News*, 74, 480-495. Retrieved from <https://crln.acrl.org/index.php/crlnews/article/view/9011/9810>
- Shokrpour, N., Sadeghi, A., & Seddigh, F. (2013). The Effect of Summary Writing as a Critical Reading Strategy on Reading Comprehension of Iranian EFL Learners. *Journal of Studies in Education*, 3, 127-138. Retrieved from https://www.researchgate.net/publication/276182372_The_Effect_of_Summary_Writing_as_a_Critical_Reading_Strategy_on_Reading_Comprehension_of_Iranian_EFL_Learners
- Simmons, D.C., Kameenui, E.J., Good, R.H., Harn, B., Cole, C.E., & Braun, D. (2000). Building, Implementing, & Sustaining a Beginning Reading Model: School by School and Lessons Learned. *OSSC Bulletin*, 43. Retrieved from <https://eric.ed.gov/?id=ED443080>
- Syabri, M., Latif, A., & Amaluddin, A. (2021). Improving Students' Reading Comprehension Through Top-Down Strategy. *Exposure: Jurnal Pendidikan Bahasa Inggris*. 10(2) Retrieved from <https://journal.unismuh.ac.id/index.php/exposure/article/view/5346>
- Thorndike, E.L. (2009). Reading as Reasoning: A Study of Mistakes in Paragraph Reading. *Reading Research Quarterly* Vol. 6, No. 4 (Summer, 1971), pp. 425-434. Retrieved from <https://www.jstor.org/stable/746938>
- Tsai, T. (2009). EFL College Freshman Note-Taking Training for Reading Comprehension. Retrived from <https://www.semanticscholar.org/paper/EFL-COLLEGE-FRESHMAN-NOTE-TAKING-TRAINING-FOR-Tsai/09f60efaf71c5664a81ea5216dacao71dbf66eae>
- Vaezi, S. 2006. Theories of reading 2. Available online at <https://www.teachingenglish.org.uk/article/theories-reading-2>
- Valdivieso, L.B. (2000). Los Procesos Cognitivos En El Aprendizaje De La Lectura Inicial. *Estud. pedagóg.* n.30. Retrieved from https://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0718-07052004000100001
- Virgiyanti, D.F. (2020). The Use of Extensive Reading to Encourage Students' Reading Ability. *International Journal of English Learning and Applied Linguistics (IJELAL)*. 1(1) Retrieved from <https://ejournal.unida.gontor.ac.id/index.php/IJELAL/article/view/5016>
- Wijaya, K.F. (2021). The Important Role of Extensive Reading Strategy in Indonesian EFL Learning Contexts. *Acuity: Journal of English Language Pedagogy, Literature and Culture*. 6(2) Retrieved from <https://files.eric.ed.gov/fulltext/EJ1305212.pdf>
- Yang, H., & Yang, X. (2021). A Summary and Critical Analysis: "The Investigation on Critical Thinking Ability in EFL Reading Class". *International Journal of Creative*

Research Thoughts 9(12). Retrieved from
<https://ijcrt.org/papers/IJCRT2112091.pdf>

Yunus, M.M., Salehi, H., & John, D.S. (2013). Using Visual Aids as a Motivational Tool in Enhancing Students Interest in Reading Literary Texts. ArXiv, abs/1305.6360. Retrieved from
https://www.researchgate.net/publication/236946579_Using_Visual_Aids_as_a_Motivational_Tool_in_Enhancing_Students_Interest_in_Reading_Literary_Texts

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