The Enhancing Critical Reading Skills Through Instruction: A Combination of Guided Discovery Learning and Metacognitive Strategies

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Abstract

This paper explores the integration of guided discovery learning (GDL) and metacognitive strategies as a novel approach to enhancing critical reading skills among students in educational settings. Drawing on the literature on critical reading, GDL, and metacognitive strategies, the paper examines the theoretical foundations and practical implications of each component. Guided discovery learning emphasizes active exploration and problem-solving, while metacognitive strategies promote self-awareness and regulation of cognitive processes. By integrating these approaches, educators can create a comprehensive instructional approach that addresses the multifaceted nature of critical reading. The paper discusses the potential benefits and challenges of implementing the proposed approach and highlights its implications for student learning outcomes, curriculum development, and future research directions. Overall, this paper advocates for innovative instructional approaches that leverage the synergies between different learning theories and strategies to support students' development of critical reading skills.

Keywords: Critical Reading Skills; Guide Discovery Learning; Metacognitive Strategies

Introduction

The contemporary world has seen significant transformations, particularly in the wake of the COVID-19 pandemic. Consequently, humans need to go through significant development and adaptation. Equally applicable to the field of higher education. The COVID-19 pandemic has significantly accelerated the transformation of higher education institutions in the next normal era. The pandemic has expedited the need for institutions to renew, recalibrate, and reposition themselves in the educational landscape. This overhaul has led to global changes in education, necessitating institutions to tackle the implications and challenges of this new period (Bozkurt & Sharma, 2020 : i-x). The extensive news coverage provided by mass media plays a significant role in shaping readers' viewpoints, underscoring the necessity for developing critical reading abilities to discern misinformation and understand the author's intentions. Having critical thinking skills is crucial for understanding, analyzing, organizing, evaluating, and using information from the media. This method enables readers to cultivate a profound comprehension of the text's significance and employ analytical reasoning to effectively react to the provided information (Wardani et al., 2022). Enhancing critical reading skills is essential in the next normal era. Critical reading enhances students' reading comprehension, activates higher-order thinking skills, and taps into their prior experiences (Roomy, 2022). It also improves argumentation writing skills and academic vocabulary mastery, leading to better argumentative writing (Nurjanah & Setiyaningsih, 2022 : 7–10).

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Critical reading is essential in the process of writing scientific papers, as it strengthens the process and results of scientific writing (Utom et al., 2022). Additionally, critical reading skills play a role in the application of reading skills into practice, helping students effectively use skimming, scanning, inferring, and guessing meanings (Wu & Liu, 2019 : 239-241).

In the 21st century, critical thinking and critical reading are becoming increasingly important for individuals to access information, evaluate it, and distinguish truth from propaganda. This skill enables individuals to thoughtfully interpret facts, events, and messages in information exchanges, leading to accurate and reliable conclusions (Yildirim & Söylemez, 2018 : 326–335). Within an educational setting, critical reading provides a multitude of benefits. It helps students deepen their understanding and awareness of both language and content, enabling them to navigate academic requirements more effectively (Castillo, 2023 : 41-59). It also promotes and measures learners' ability to understand, interpret, and evaluate texts, developing their reading comprehension skills and stimulating critical and reflective thinking (Niculescu & Dragomir, 2023 : 215–220). It equips learners with critical thinking skills to identify and expose covert ways in which social institutions perpetuate social inequities, empowering them to challenge underlying power relations and propose material solutions to social problems (Onuora, 2013 : 39–50). Thus, finding an effective approach for skill enhancement is vital. In this article, the authors present a novel method that integrates guided discovery learning (GDL) and metacognitive strategies to enhance critical reading skills. Numerous empirical studies have shown the effectiveness of these methods in enhancing critical reading skills.

Critical Reading

Critical reading is a fundamental skill that allows individuals to engage with texts in a thoughtful and analytical manner. By approaching written material with a critical eye, readers can uncover underlying assumptions, evaluate the strength of arguments, and discern the author's purpose and perspective. From an educational perspective, critical reading is the ability to analyze, evaluate, and interpret texts in a thoughtful and reflective manner. It involves engaging with the content, making connections, drawing conclusions, and critically evaluating the information presented. Mastering critical reading skills is essential for students as it helps them navigate academic requirements, deepen their understanding of language and content, and develop 21st-century literacy. Critical reading promotes students' ability to understand, interpret, and evaluate texts, enabling them to develop critical and reflective thinking skills. It also enhances reading comprehension and problem-solving abilities, leading to improved academic achievement and performance in academic courses. However, teachers play a crucial role in fostering critical reading by creating didactic resources that stimulate students' critical thinking and reflective thinking. The formation of critical readers depends on the teacher's curriculum attitude and the implementation of critical literacy principles, rather than solely relying on textbooks (Benedini, 2020 : 491–509; Ramos, 2020 : 243–264**;** Koray & Çetinkılıç, 2020 : 400–409**;** Niculescu & Dragomir, 2023 : 215–220).

Curriculum and implementation strategies for improving critical reading skills have been explored in several studies. One approach is the use of a critical literacy framework through dramatic play, which empowers students to interrogate injustices and develop their voices (Goar, 2021 : 97–108). Another study focused on creating a prototype of learning to read Arabic with a critical literacy approach based on the systemic functional linguistics' genre-

based approach (SFL-GBA) (Hasanah et al., 2022 : 711). Additionally, a reading course model was developed to improve pre-service English language teachers' critical reading skills within the framework of critical pedagogy (Bilki, 2023 : 1387–1401). The implementation of a critical literacy approach in learning English for English as foreign language (EFL) college students was also investigated, showing improvements in English proficiency and multiple skills (Wardani, 2021 : 46–59). Furthermore, the realistic mathematics education (RME) learning model was found to enhance elementary school students' critical thinking skills in mathematics (Susandi & Widyawati, 2022 : 251–260). These studies provide insights into different curricular and implementation strategies for improving critical reading skills in various educational contexts.

Critical reading is necessary for undergraduate students to develop their critical thinking skills, improve reading comprehension, and navigate academic requirements (Arifin, 2020 : 318; Javorcikova & Badinská, 2022 : 655; Tsai et al., 2022). It is important for students to be able to evaluate texts critically by identifying the author, genre, organization of the text, and its importance to the reader and their community (Niculescu & Dragomir, 2023 : 215–220). By employing critical reading strategies, students can enhance their ability to understand and evaluate information, particularly when reading scientific journals and textbooks (Lingyan, 2023 : 18-21). Developing critical reading skills also helps students analyze, evaluate, and draw conclusions from academic content, enabling them to function more effectively in the educational environment and beyond. To cultivate critical reading ability, it is essential to encourage students to ask questions, optimize teaching procedures, and improve assessment methods. Next, the two pedagogical approaches are presented. They have been empirically demonstrated to enhance critical reading proficiency. The two methods discussed in the following sections are guided discovery learning and metacognitive strategies.

Guided Discovery Learning

Jerome Seymour Bruner stated that discovery learning exhibits superior efficacy in relation to knowledge memorization, transfer problem resolution, self-regulation strategies, and intrinsic motivation, in contrast to non-constructivist receptive learning and didactic teaching (Bruner, 1961 : 21-32). In the process of discovery learning, learners utilize their own inductive reasoning to develop abstract knowledge based on non-abstract learning resources offered by the learning environment. While guided discovery learning involves a substantial amount of guidance during the learning process, students are provided with meticulously chosen instances and counterexamples in deliberate and predetermined orders. They utilize guided or scaffolded inductive reasoning methods. Guided discovery learning can be applied in educational settings that incorporate instructional technology and collaborative knowledge-generation processes (Seel, 2012 : 1009-1012).

Guided discovery learning is an instructional approach where learners are provided with guidance and support to actively explore and discover new knowledge or concepts. It involves the use of prompts, questions, and scaffolding techniques to help learners make connections, analyze information, and develop problem-solving skills. The goal of guided discovery learning is to promote deep understanding and critical thinking by allowing learners to construct their own knowledge through active engagement and exploration. This approach is often used in problem-based learning, inquiry-based learning, and constructivist teaching methods. Research has shown that guided discovery learning can enhance motivation, engagement, and retention of information among learners. However, it is important for

educators to strike a balance between providing enough guidance and allowing learners to explore independently to ensure optimal learning outcomes (Permatasari & Laksono, 2019 : 012023; Iswati & Purwati, 2022 : 701–705).

There are numerous studies that have utilized the GDL method to enhance reading comprehension. Henny Dwi Iswati and Oikurema Purwati study the improvement of students' critical thinking through the application of the GDL method in critical reading classes using argumentative texts. The study was conducted on third-semester students of the English education study program at Surabaya State University. Data collection was done through observation, tests, and questionnaires. The results of the study showed that the reading of argumentation texts became more in-depth and critical after the GDL method was applied. This increase in critical thinking was attributed to the presence of elements of experience and concrete situations that made it easier for students to understand problems and make comprehensive decisions. The GDL method facilitated active engagement and participation from students, allowing them to develop their problem-solving skills, analytical thinking, and decision-making abilities (Iswati & Purwati, 2022 : 701–705).

In the research of Tri Wahyuni which investigates the implementation of GDL to improve students' ability in guessing word meanings from context. The research findings showed that GDL improved students' reading ability and comprehension, making it easier for them to guess word meanings from context and understand the content of the text. Moreover, the use of guided discovery learning in the classroom improved the students' confidence and created a more active and engaging atmosphere, leading to increased participation and enjoyment in reading and other activities. However, the weaknesses of implementing guided discovery learning include its ineffectiveness for passive learners and the time-consuming lesson preparation, while some students still struggle with reading comprehension and rely heavily on their native language during discussions (Wahyuni, 2022 : 9–17).

Muliati Muliati and UlfahSyam conducted a pre-experimental study using a one-group pre-test and post-test design, focusing on students' reading comprehension. Before implementing the discovery learning method, students faced difficulties in answering reading comprehension tests, but after the treatment and post-test, their reading skills significantly improved. The research highlights the importance of implementing the discovery learning method in teaching and learning reading, as it helps teachers design materials, strategies, and activities based on students' reading comprehension levels, leading to more effective teaching and learning in the classroom. The study contributes to the field of English language teaching by providing insights into the challenges students face in reading English and emphasizing the benefits of the discovery learning method in improving reading comprehension (Muliati & Syam, 2020 : 370–382).

Ida Zahara studied the effectiveness of using guided discovery in teaching reading comprehension to eleventh-grade students. The study aimed to determine if there was a significant difference in reading comprehension achievement between students taught using guided discovery and those taught using a conventional strategy. The study used a quasi-experimental method with a matching only pre-test post-test control group design. The sample consisted of 70 eleventh-grade students, divided into an experimental group and a control group. Both groups were given a reading comprehension test before and after the treatment. The results, analyzed using a matched t-test, showed a significant difference between the two

groups. The study concluded that guided discovery is an effective technique for teaching reading comprehension to eleventh-grade students (Zahara, 2017 : 66–73).

In addition, guided discovery learning improves critical reading by promoting active engagement and metacognitive strategies in the reading process. GDL encourages learners to actively explore and discover new knowledge, which enhances their ability to critically analyze and evaluate texts. Through problem-solving and inquiry-based activities, GDL helps learners develop critical thinking skills, such as identifying main ideas, making inferences, and evaluating evidence. GDL also fosters metacognitive strategies, such as self-monitoring and self-regulation, which enable learners to reflect on their reading comprehension and make adjustments to improve understanding. By providing guidance and support, GDL helps learners develop a deeper understanding of text content and structure, enhancing their ability to critically analyze and interpret complex texts (Janssen et al., 2013 : 67–90; Permatasari & Laksono, 2019 ; Iswati & Purwati, 2022 : 701–705). Nevertheless, there has been a scarcity of research investigating the impact of the Guided Discovery Learning Method on enhancing critical reading skills in university-level students. This paper aims to integrate two methods in order to introduce a new approach that shows potential for enhancing critical reading skills. Prior to delving into the promise technique, it is advisable to take into account the metacognitive strategies outlined in the
subsequent section.

Metacognitive Strategies

John Hurley Flavell is credited with providing the initial definition of metacognition, which refers to an individual's understanding of their own cognitive processes, outcomes, or anything associated with them. This offers a thorough comprehension of the concept. It emphasizes the significance of being attentive of and having mastery over one's cognitive processes, and it has had a significant impact on the development of metacognition research in diverse disciplines (Flavell, 1976 : 231-236). Metacognitive strategies involve the awareness, evaluation, and regulation of cognitive activities, and can be developed and improved over time. These strategies are used to improve learning, emotions, and behavior, and consist of a sequence of activities that can be examined, reported, and modified. Metacognitive strategies help cultivate critical thinking, reading comprehension, self-knowledge, self-management, listening skills, social skills, and the regulation of negative emotions. They are considered high-order executive skills that make use of knowledge of cognitive processes and involve planning, monitoring, and evaluating one's own learning. In reading, metacognitive strategies focus on self-monitoring and self-regulating activities that enhance comprehension. Metacognitive strategies are important for effective learning and problem-solving, as they help individuals become more aware of their own thinking processes and make adjustments to improve learning outcomes (Muhid et al., 2020 : 847-862; Cheruvalath & Gaude, 2024).

Research on expert readers has shown that successful comprehension requires directed cognitive effort, known as metacognitive processing, which involves knowledge about and regulation of cognitive processing. Metacognitive processing during reading is expressed through strategies that are purposeful, effortful, and essential for enhancing learning from text. Metacognitive strategies involve allocating attention to controlling, monitoring, and evaluating the reading process, and they play a facilitative role in comprehension. Effective reading instruction programs should include the modeling and acquisition of complementary strategies in a context that reinforces their usefulness. Instruction in metacognitive strategies can help

unskilled readers become skilled readers by teaching them effective strategies and how to monitor and check their comprehension while reading. Training in metacognitive language learning strategies can also improve listening and reading skills and raise language proficiency levels (Cubukcu, 2008). Moreover, metacognitive strategies can be used before, during, and after reading to enhance reading comprehension and performance (Bouknify, 2023 : 41–51).

Abdul Muhid et al. found that implementing metacognitive strategies had a significant positive effect on students' reading comprehension achievement. The effect size for the paired-samples t-test of the experimental group was large, indicating a substantial difference in students' scores before and after the treatment. While nine sub-categories of metacognitive strategies were identified, including advance organizer, self-management, comprehension monitoring, production monitoring, self-assessment, self-evaluation, and self-reflection, selective attention was the most frequently used strategy, while self-reflection was the least used. The study also highlighted the recursive nature of metacognitive strategies, with the three processes (planning, monitoring, and evaluating) not being linear but interconnected. Overall, the findings support the importance of implementing metacognitive strategies in improving students' reading comprehension achievement (Muhid et al., 2020 : 847-862).

Yelda Kökçü examined pre-service teachers' metacognitive reading strategies and critical reading skills. The critical reading self-efficacy perception scale (CRSPS) and metacognitive reading strategies questionnaire (MRSQ) were administered to 124 Turkish University pre-service teachers. Data was analyzed using Pearson correlation and simple linear regression. Metacognitive reading strategies and critical reading perceptions were positively correlated. The study suggests educational content development and metacognitive training are essential for pre-service teachers' critical reading skills. Moreover, future research should use qualitative or mixed-method methods for more detail (Kökçü, 2023 : 47–61). Based on extensive research and current evidence, this paper presents a novel approach that combines the guided discovery learning method with metacognitive strategies. The authors are optimistic that the novel approach we are introducing will have potential to enhance critical reading skills.

Combined Instruction

There is a limited amount of research on the integration of guided discovery learning and metacognitive strategies. One of these studies is the research conducted by Tri Wahyuningsih et al. They conducted a study on problem-solving skills in students using guided discovery learning and a metacognitive approach, supported by Schoology. The study used a mixed-method approach, including quantitative and qualitative methods, to assess the effectiveness of GDL and Schoology in improving problem-solving skills. The study found that GDL with a metacognitive approach and Schoology significantly improved students' problem-solving abilities. The authors also highlighted the role of metacognition in problem-solving activities and suggested that metacognitive strategies could be developed through GDL implementation (Wahyuningsih et al., 2020 : 229-236). Another research is accomplished by Elya Nusantari et al. The objective of their study is to create an educational instrument that utilizes discovery learning and metacognitive knowledge strategy (MKS) in order to enhance students' critical thinking skills. The tool completed validation testing by experts and practitioners, and was determined to be efficacious in improving students' critical thinking skills. The lesson plan incorporates a metacognition-based approach to distance learning, while the worksheets include questions and problems that promote metacognition. The study assesses

five aspects of critical thinking skill: assumption, interference, deduction, interpretation, and evaluation. Discovery Learning is an educational approach that emphasizes active learning and problem-solving, while MKS integrates different types of knowledge, including factual, procedural, and conditional (Wardani, 2021 : 46–59). That is, the two papers suggest that the combination of guided discovery learning and metacognitive strategies offers a comprehensive and efficient learning experience for students in the field of science education (Wahyuningsih et al., 2020 : 229-236; Wardani, 2021 : 46–59).

Henny Dwi Iswati and Oikurema Purwati aimed to improve students' critical thinking abilities in higher education through the application of the guided discovery learning method in critical reading classes using argumentative texts. The GDL approach in critical reading classes involves using real-world issues, concrete situations, and pictures to help students understand problems and make decisions comprehensively. The stages of GDL, including orientation, organizing, guiding, and evaluating, provide a structured framework for implementing the GDL approach in the classroom. This approach focuses on active learning, problem-solving, and analysis of argumentative texts, promoting students' critical thinking skills. The results of the study showed that the reading of argumentation texts became more in-depth and critical after the application of the GDL method, partly due to the inclusion of elements of experience and concrete situations (Iswati & Purwati, 2022 : 701–705).

Besides, Lian Zhang and Sirinthorn Seepho explored the metacognitive strategies of English major students at Guizhou University in China during academic reading. The data collection process involved third-year English major students completing a metacognitive strategy questionnaire, participating in a semi-structured interview, and taking a reading comprehension test. The findings revealed a significant positive correlation between the use of metacognitive strategies and English reading achievement. Students at both high and low proficiency levels showed a moderate use of metacognitive strategies. Selective attention was the most commonly used strategy, while self-reflection and self-evaluation were the least utilized. In particular, the study identified monitoring and planning strategies as robust predictors of reading achievement. Hence, it is recommended to include metacognitive strategy training in reading instruction to enhance EFL reading comprehension. This finding suggests that promoting metacognitive strategies can lead to improved reading performance among English language learners. By incorporating explicit instruction on monitoring and planning strategies, educators can help students develop the necessary skills for effective reading comprehension (Zhang & Seepho, 2013).

Additionally, Feryal Çubukçu demonstrates the effectiveness of incorporating metacognitive strategies, following the cognitive academic language learning approach (CALLA) model including steps such as preparing, presenting, practicing, evaluating, and expanding, in enhancing reading comprehension and vocabulary achievement among University students. The intervention consisted of a structured five-week program during which students were instructed in metacognitive strategies for reading and utilized reading logs to reflect on their cognitive processes. The results showed a statistically significant difference between the control and experimental groups in terms of vocabulary and reading comprehension scores, indicating the positive impact of metacognitive strategies on these skills (Cubukcu, 2008).

In this paper, we combine GDL and metacognitive strategies to create a new approach to enhance critical reading skills. This paper utilizes the steps of GDL by Henny Dwi Iswati and Oikurema Purwati in conjunction with the metacognitive strategies studied by Lian Zhang and Sirinthorn Seepho, and Feryal Çubukçu which are shown in Figure 1. The authors anticipate that combining GDL with metacognitive strategies has the potential to offer a comprehensive and efficient approach for fostering critical reading skills.

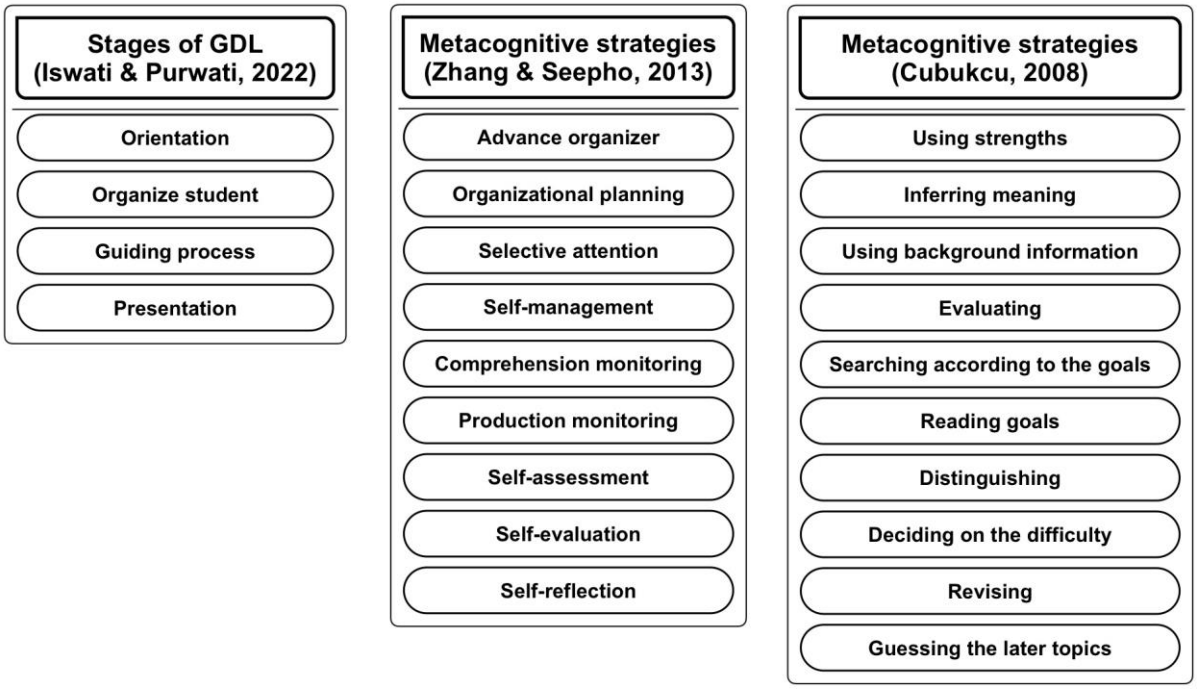

Figure 1. The stages of GDL and metacognitive strategies that are used in this paper to construct a new approach to enhancing critical reading skills.

The four stages of GDL in the study of Henny Dwi Iswati and Oikurema Purwati include orientation, organization, guiding process, and presentation. These stages involve students noticing the material, compiling and analyzing data, making conjectures, and presenting their findings. The lecturer plays a role in providing examples, dividing students into groups, guiding and supervising, and facilitating presentations (Iswati & Purwati, 2022 : 701–705). In relation to metacognitive strategies, we are studying the following research papers. The first study was conducted by Lian Zhang and Sirinthorn Seepho. They categorized metacognitive strategies into three main categories: planning, monitoring, and evaluating. Planning involves advance organizer, organizational planning, selective attention, and self-management. An advance organizer is used to prepare for reading tasks by determining task nature, setting goals, and planning sub-task objectives, enabling better comprehension and focus. Organizational planning involves carefully considering the content, strategies, and prior knowledge that will be utilized to effectively approach and comprehend the reading tasks. It helps readers to have a clear direction and purpose, and enhances their ability to engage with the text in a meaningful and productive way. Selective attention refers to the ability to focus

on a specific task or information. It involves sequencing and prioritizing different strategies to effectively complete reading tasks. Self-management requires individuals to make conscious decisions about which strategies to employ in order to enhance their reading comprehension and achieve their reading goals. Monitoring involves comprehension monitoring and production monitoring. Comprehension monitoring refers to the process of checking the understanding, accuracy, and appropriateness of the overall reading task or process and helps readers identify difficulties, adjust strategies, and evaluate their abilities, ultimately enhancing their reading skills. Production monitoring involves a reflective and evaluative process where the reader assesses the effectiveness of their reading strategies and makes adjustments as needed to enhance comprehension. Evaluating involves self-assessment, self-evaluation, and self-reflection. Self-assessment is used by readers to evaluate their achievement of their reading goals. Self-evaluation uses individuals to determine the effectiveness of their approach to reading and make adjustments to improve their reading comprehension and overall reading performance. Self-reflection involves awareness over difficulties whether one should revisit the reading process for better comprehension (Zhang & Seepho, 2013).

Feryal Übukçu carried out the second study. She takes into account ten metacognitive strategies: 1. Using strengths involves utilizing one's personal strengths to enhance understanding of a text. Skilled readers focus on written words and sentences, while those skilled in interpreting figures and diagrams pay attention to visual representations. 2. Inferring meaning involves understanding words or phrases based on context clues or strategies, using prior knowledge and understanding of the text to make educated guesses about unfamiliar words. 3. Using background information refers to a reader's existing knowledge and understanding of a particular topic, including their prior experiences and understanding of the subject matter. 4. Evaluating is the process of critically analyzing and assessing text information while reading, aiming to enhance the reader's knowledge and understanding, promote active engagement, informed decision-making, and deeper understanding of the subject matter. 5. Searching according to the goals is enhanced by actively seeking information that aligns with the reader's specific goals, such as finding information on a specific topic or answering specific questions. 6. Reading goals are specific objectives or purposes a reader has in mind while reading, varying based on the individual and context. 7. Distinguishing requires familiar and new information, enabling better understanding and connecting between existing knowledge and new learning. 8. Deciding on the difficulty involves consciously assessing the reader's understanding and perception of the text, considering factors like vocabulary, sentence structure, and complexity of ideas. 9. Revising is engaged with the text by reflecting on and modifying their questions based on the information they encounter, adjusting their understanding and interpretation as they progress. 10. Guessing later topics involves readers actively anticipating and predicting future content, allowing them to engage with the content they are reading (Cubukcu, 2008).

We can examine the metacognitive methods used in the experiments by Lian Zhang and Sirinthorn Seepho (2013) and Feryal Cubukçu (2008) to develop a new integrated strategy. This approach, illustrated in the diagram in Figure 2, combines the methodologies and core ideas of the aforementioned studies. The distinctive characteristics of this combined approach are as follows:

1. Using strengths:

Use readers' personal strengths to understand a text. Skilled readers focus on words and sentences, while skilled diagram interpreters focus on visuals.

2. Setting goals:

Identify the purpose or objective of their reading and set tasks to do while reading.

3. Planning:

Consider the text's difficulty levels in terms of vocabulary, grammar, and idea complexity, review the content's prior knowledge and relevance, and select an effective approach to comprehending and analyzing the reading tasks.

4. Reading:

- Inferring meaning: understand words or phrases through context clues and prior knowledge.
- Using background knowledge and information: refer to prior knowledge and experience to criticize the content and idea of the reading task.
- Searching according to the goal: find text information to align the reader's goals or answer the questions.
- Assessment while reading: distinguish and decide on difficulty to consciously assess the reader's understanding. While reading, critically analyze and assess text information according to the goals.

5. Evaluation and reflection achievement:

Determine the effectiveness of the approach to reading and adjust to improve overall reading performance and awareness of the difficulties that should be revisited in the reading process for revision. Engage the texts, anticipate and predict future content.

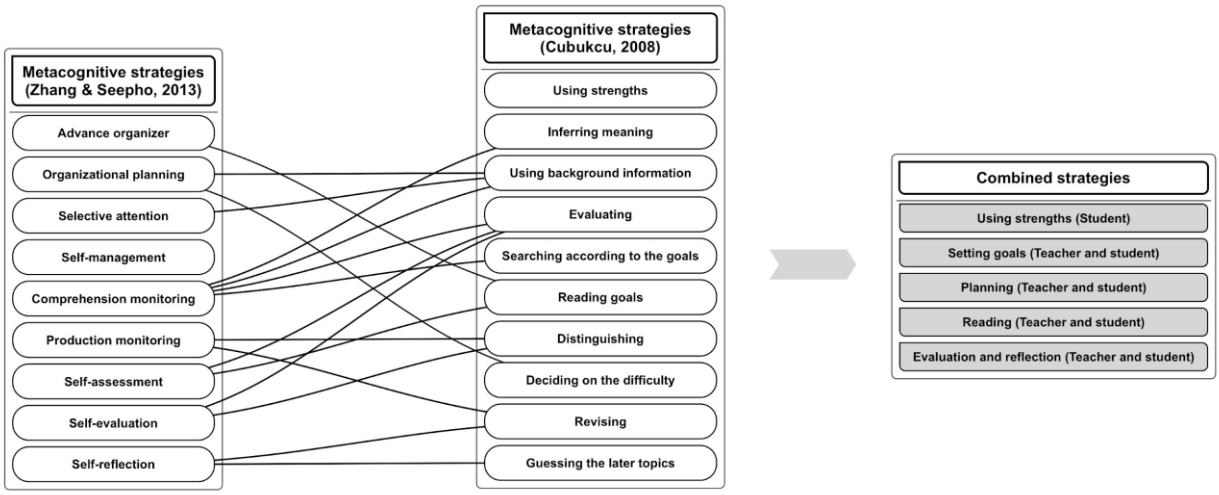

Figure 2. Diagram illustrating the combination of metacognitive strategies.

The combined metacognitive strategies, as illustrated in Figure 2, consist of five strategies: utilizing strengths, setting goals, planning, effective reading, and evaluation and reflection. These strategies will be integrated into the GDL stages to implement the new approach, focusing on the relationship between learning theories, reading processes, and the real-world construction of learning activities. Therefore, the combined instruction will proceed through five steps: orientation, organization, guiding process, presentation, and evaluation and reflection achievement, as shown in Figure 3. The details are as follows:

1. Orientation:

Students notice material explained by the teacher. The teacher explains a number of examples of questions or problems with the material as well as the methods used.

2. Organization:

The teacher divides students into groups based on their strengths to understand the text. Skilled readers focus on words and sentences, while skilled diagram interpreters focus on visuals. Based on the data provided by the teacher, students compile, process, organize, and analyze the data together within their respective groups.

3. Guiding Process:

The teacher provides learning tools while circulating among groups to supervise and guide those encountering difficulties with their assignments. Each group of students formulates conjectures based on the results of their analyses.

3.1 Setting Goals:

Students identify the purpose or objective of their reading and establish tasks to accomplish while reading.

3.2 Planning:

Students consider the text's difficulty levels in terms of vocabulary, grammar, and idea complexity; review relevant prior knowledge; and select effective approaches for comprehending and analyzing the reading tasks.

3.3 Reading using strategies:

- Inferring Meaning: Students understand words or phrases using context clues and prior knowledge.
- Using Background Knowledge and Information: Students refer to prior knowledge and experiences to critique the content and ideas presented in the reading task.
- Searching According to Goals: Students locate text information to align with their reading goals or to answer specific questions.
- Assessment During Reading: This involves identifying and determining the level of difficulty to consciously assess comprehension. While reading, students critically analyze and assess text information according to their goals.

4. Presentation:

One student from each group presents their group's findings to the class.

5. Evaluation and Reflection Achievement:

Students assess their reading strategies, make adjustments to enhance performance, and acknowledge challenges to revisit during the revision process. They actively engage with the texts, anticipate, and predict future content.

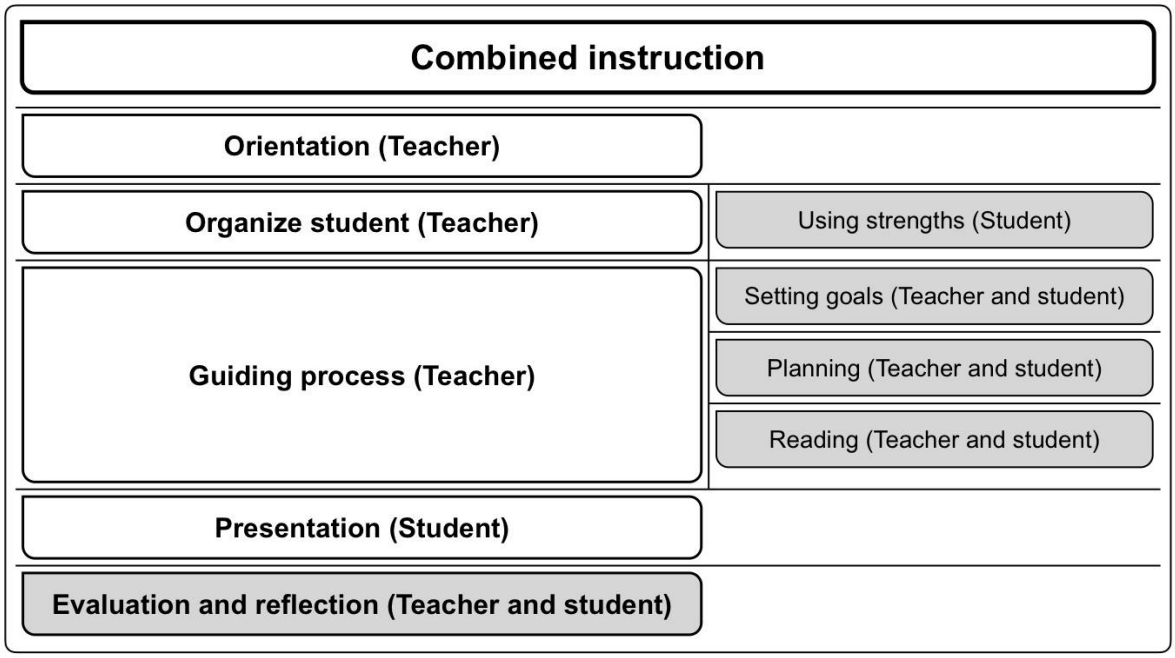

Figure 3. Combined instruction derived from the integration of guided discovery learning and metacognitive strategies.

Conclusion

This paper has presented a comprehensive exploration of enhancing critical reading skills through the integration of guided discovery learning (GDL) and metacognitive strategies. We began by discussing the transformative impact of the COVID-19 pandemic on higher education, emphasizing the urgent need for institutions to recalibrate and reposition themselves in the educational landscape. The importance of critical reading skills in navigating the complexities of the next normal era was underscored in our examination of contemporary educational challenges. Through our exploration of critical reading, we highlighted its role as a fundamental skill for engaging with texts thoughtfully and analytically. We discussed the various benefits of critical reading, including improved comprehension, enhanced problem-solving abilities, and deeper engagement with academic content. Subsequently, we delved into the principles and applications of guided discovery learning, emphasizing its efficacy in promoting active exploration and problem-solving among students. We presented empirical studies demonstrating the effectiveness of guided discovery learning in enhancing critical reading proficiency. Moreover, we examined metacognitive strategies as essential tools for

promoting self-awareness and regulation of cognitive processes. By fostering metacognitive awareness, educators can empower students to monitor and adjust their reading strategies, leading to improved comprehension and critical thinking skills. In integrating these components, we propose a dynamic instructional approach that leverages the synergies between GDL and metacognitive strategies to foster critical reading skills among students. This combined approach includes orientation, organization, guiding process, presentation, and evaluation and reflection. While the implementation of this integrated approach poses challenges, such as the need for specialized teacher training and the design of appropriate instructional materials, its potential benefits for student learning outcomes are significant. Moving forward, further research and experimentation are warranted to refine and optimize this approach in diverse educational contexts. By equipping students with the critical reading skills necessary for success in the 21st century, we can empower them to become lifelong learners and informed citizens in an increasingly complex world.

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