

ENHANCING DIGITAL LITERACY THROUGH KWL (Know-Want to Know-Learn) METHOD: INSIGHTS FROM EFL STUDENT REFLECTIONS

Rosalinda Ayuning Widodo¹, Dzurriyyatun Ni'mah², Diah Retno Widowati³
^{1,2,3}*English Education Department, Universitas Islam Malang, Indonesia*

Email: ¹22201073049@unisma.ac.id

Abstract: Digital reading has become an important part of English language learning in higher education. However, many EFL university students still experience difficulties in understanding digital texts, organizing ideas, and reflecting on what they have read. The KWL (Know–Want to Know–Learn) strategy is considered a useful approach that helps students become more active and reflective during reading. This study aimed to explore EFL university students' experiences of using the KWL strategy during digital interpretative reading activities and the challenges they encountered while applying it. A qualitative phenomenological approach was employed to understand students' lived experiences. The participants were three undergraduate students enrolled in an Interpretative Reading course. Data were collected through semi-structured interviews and analyzed using thematic analysis. The findings showed that the KWL strategy helped students activate prior knowledge, organize ideas, set reading goals, and reflect on their understanding after reading digital texts. The strategy also encouraged active participation, critical thinking, and greater confidence during the reading process. However, participants experienced challenges in generating meaningful questions, understanding unfamiliar vocabulary, and maintaining concentration while reading long digital texts. Overall, the study suggests that the KWL strategy supports reflective learning and helps EFL students develop more meaningful digital reading experiences.

Keywords: KWL Strategy, Digital Interpretative Reading, Digital Literacy, Reflective Learning, EFL Students.

INTRODUCTION

Reading has become one of the most fundamental skills in English language learning because it enables learners to acquire knowledge, develop critical thinking, and participate actively in academic activities. In higher education, technological advancements have transformed reading practices, as printed materials are increasingly replaced by digital resources such as e-books, online articles, academic journals, and educational websites. Consequently, digital reading has become an integral part of university learning, particularly for students studying English as a Foreign Language (EFL). In digital learning environments, students are expected not only to understand the explicit meaning of texts but also to interpret information, evaluate ideas, and construct deeper understanding from multiple sources. These demands are especially evident in interpretative reading courses, where students are required to analyze the author's ideas, make inferences, connect information with their prior knowledge, and reflect on the meaning of the texts they read. However, these expectations remain challenging for many EFL students because they often encounter unfamiliar vocabulary, complex sentence structures, lengthy digital texts, and difficulties maintaining concentration while reading on digital devices. Such challenges frequently limit students' engagement with reading activities and encourage them to focus only on completing reading tasks rather than critically reflecting on the information they obtain.

To address these challenges, English language lecturers need instructional strategies that encourage students to become active, purposeful, and reflective readers rather than passive recipients of information. One strategy that has been widely implemented in reading instruction is the KWL (Know–Want to Know–Learned) strategy introduced by Ogle (1986). The strategy consists of three interconnected stages that guide students throughout the reading process. In the Know stage, students activate their prior knowledge about the topic before reading. In the Want to Know stage, they formulate questions that establish clear reading purposes and stimulate curiosity.

Finally, in the Learned stage, students evaluate what they have learned, answer their initial questions, and reflect on the knowledge they have gained after reading. Through these stages, KWL encourages learners to organize their ideas systematically, monitor their own comprehension, and connect new information with existing knowledge. Moreover, because the strategy requires students to continuously reflect on their understanding, it also supports reflective learning and contributes to the development of digital literacy by encouraging students to engage critically with digital texts instead of reading them passively.

Previous studies have consistently highlighted the benefits of the KWL strategy in English reading instruction. Ogle (1986) proposed that the strategy promotes active learning by encouraging learners to activate prior knowledge, establish reading purposes, and reflect on newly acquired information. Subsequent studies have also demonstrated that KWL improves reading comprehension, learning engagement, critical thinking, and students' ability to organize information systematically. In addition, several researchers have reported that the strategy encourages learners to become more independent and self-regulated readers because they continuously monitor their understanding throughout the reading process. Although these studies provide valuable evidence regarding the effectiveness of KWL, they have predominantly examined its impact on students' reading achievement or comprehension through quantitative approaches. Consequently, relatively little attention has been given to how EFL university students personally experience using the KWL strategy during digital interpretative reading activities. More specifically, limited research has explored students' perceptions of each stage of the strategy, the challenges they encounter while applying it, and how these experiences shape their reflective thinking when reading digital texts.

Addressing this gap, the present study explores the lived experiences of EFL university students in using the KWL strategy during digital interpretative reading

activities. Employing a qualitative phenomenological approach, this study seeks to understand how students perceive the implementation of the KWL strategy and how they interpret the challenges they encounter throughout each stage of the reading process. Rather than focusing solely on students' academic performance, this study emphasizes their personal experiences and reflections while engaging with digital texts. By examining these experiences, the study contributes to the growing body of research on reflective learning, digital reading, and English language teaching while providing practical insights for lecturers who seek to implement more meaningful and student-centered reading instruction.

Accordingly, this study addresses the following research questions:

1. How do EFL students reflect on the use of KWL in developing their digital literacy during a digital reading activity?
2. What challenges do students face when using the KWL strategy in digital interpretative reading?

LITERATURE REVIEW

Digital Interpretative Reading

Digital reading has become an essential component of English language learning in higher education as academic resources are increasingly accessed through online platforms, electronic books, digital articles, and educational websites. In EFL contexts, reading digital texts involves more than understanding written information because students are expected to interpret ideas, evaluate evidence, and construct meaning from multiple sources presented in digital environments. These demands are particularly evident in interpretative reading, where students are required to go beyond literal comprehension by making inferences, identifying the author's intentions, connecting ideas with prior knowledge, and reflecting on the meaning of the text.

Therefore, interpretative reading is considered a higher-order reading process that requires students to actively engage with texts rather than simply identify explicit information.

However, digital interpretative reading presents various challenges for EFL learners. Reading academic texts in English often requires students to understand unfamiliar vocabulary, process complex sentence structures, and maintain concentration while navigating lengthy digital materials. These linguistic and cognitive demands may reduce students' confidence and limit their ability to construct deeper understanding from the texts. Consequently, students often focus on completing reading tasks instead of critically engaging with the ideas presented. Such challenges indicate that effective digital reading requires instructional support that helps students regulate their thinking, organize information, and reflect on their comprehension throughout the reading process.

KWL Strategy as a Reflective Reading Strategy

The KWL (Know–Want to Know–Learned) strategy, introduced by Ogle (1986), is a structured instructional strategy designed to promote active and reflective reading. The strategy consists of three sequential stages. In the Know stage, students activate their prior knowledge before reading by identifying what they already know about a topic. In the Want to Know stage, students generate questions regarding information they expect to learn, providing a clear purpose for reading and encouraging curiosity. Finally, in the Learned stage, students summarize and evaluate what they have learned after reading while reflecting on whether their initial questions have been answered. These stages encourage learners to monitor their understanding continuously and to become active participants in constructing meaning from texts.

Beyond improving reading comprehension, the KWL strategy supports reflective learning because it encourages students to think about their learning before,

during, and after reading. Students are guided to connect previous knowledge with new information, identify gaps in their understanding, evaluate their comprehension, and reconsider their perspectives after interacting with a text. This reflective process enables learners to become more aware of how they learn and supports the development of metacognitive awareness. In digital interpretative reading, where students encounter complex information and multiple ideas, KWL provides a systematic framework that helps them organize their thinking, remain focused on their reading purpose, and construct deeper interpretations of digital texts.

Digital Literacy in EFL Reading

Digital literacy refers to the ability to effectively access, understand, evaluate, create, and communicate information through digital technologies. In English language learning, digital literacy extends beyond technical skills because students must critically evaluate online information, interpret digital texts, and make informed decisions about the credibility and relevance of information they encounter. Consequently, digital literacy has become an important competence for EFL university students, particularly as digital resources increasingly dominate academic learning.

The development of digital literacy is closely associated with reflective reading practices. Students who actively question information, evaluate evidence, connect ideas, and reflect on their understanding are more likely to become effective digital readers. In this regard, the KWL strategy supports digital literacy by encouraging students to engage purposefully with digital texts rather than passively consuming information. Through activating prior knowledge, generating meaningful questions, and reflecting on newly acquired knowledge, students develop habits of critical inquiry and self-reflection that are essential for successful learning in digital environments. Therefore, understanding students' experiences of using the KWL strategy provides

valuable insights into how reflective reading strategies contribute to the development of digital literacy among EFL university students.

Previous Studies

Previous research has consistently demonstrated the effectiveness of the KWL strategy in enhancing students' reading comprehension, engagement, and reflective learning across various educational contexts. Ogle (1986), who first introduced the KWL strategy, argued that activating prior knowledge, setting reading purposes, and reflecting on newly acquired knowledge enable learners to become active and strategic readers. Expanding this work, Carr and Ogle (1987) emphasized that KWL supports students in organizing information, monitoring comprehension, and constructing meaning throughout the reading process. More recently, studies have shown that the strategy remains effective in EFL classrooms. For example, Hamdan et al. (2021) reported that KWL significantly improved students' reading comprehension and classroom participation by encouraging them to connect prior knowledge with new information and actively monitor their understanding during reading. Similarly, Fitriani et al. (2023) found that the implementation of KWL promoted students' critical thinking, self-reflection, and learning engagement because learners were encouraged to formulate meaningful questions and evaluate their own comprehension after reading. In addition to studies on KWL, recent research has also highlighted the increasing importance of digital literacy and reflective reading in English language learning. Leu et al. (2017) argued that successful digital reading requires learners to locate, evaluate, synthesize, and communicate information effectively while navigating digital environments, whereas Coiro (2021) emphasized that digital reading comprehension depends on readers' ability to employ strategic and reflective thinking when interacting with online texts. Likewise, Järvelä et al. (2023) explained that meaningful learning is strengthened when students actively regulate and reflect on their own learning processes, suggesting that reflective engagement is an essential component of

successful digital learning. Although these studies provide valuable evidence regarding the benefits of the KWL strategy and the importance of reflective learning in digital reading, most have primarily examined students' reading achievement, comprehension outcomes, or instructional effectiveness using quantitative approaches. Consequently, limited attention has been paid to understanding how EFL university students personally experience the use of the KWL strategy during digital interpretative reading activities, particularly how they perceive each stage of the strategy, interpret the challenges they encounter, and reflect on their learning throughout the reading process. Addressing this gap, the present study adopts a qualitative phenomenological approach to explore EFL university students' lived experiences of using the KWL strategy during digital interpretative reading, thereby extending previous research from measuring learning outcomes to understanding the meanings students attach to their learning experiences in digital environments.

METHOD

This study employed a qualitative phenomenological approach to explore EFL university students' lived experiences of using the KWL (Know–Want to Know–Learned) strategy during digital interpretative reading activities. A phenomenological design was considered appropriate because it focuses on understanding how individuals perceive and interpret their experiences in a particular phenomenon rather than measuring outcomes or testing hypotheses. The study sought to capture students' reflections on how they applied each stage of the KWL strategy, the benefits they perceived, and the challenges they encountered throughout the reading process. The research was conducted in an Interpretative Reading course at a private university in Indonesia, where digital texts were regularly integrated into classroom learning. Three undergraduate EFL students were selected through purposive sampling because they had completed the digital reading activities using the KWL strategy and were able to provide rich descriptions of their experiences. To protect participants' privacy,

pseudonyms were used throughout the study, and all participants voluntarily agreed to participate after providing informed consent.

Data were collected through semi-structured, face-to-face interviews because this method enabled participants to describe their experiences in depth while allowing the researcher to explore emerging issues through follow-up questions. An interview guide was developed based on the research objectives and focused on students' perceptions of the KWL strategy, their experiences during each stage of the strategy, and the challenges they encountered while reading digital texts. Each interview lasted approximately 30–45 minutes and was conducted in Indonesian to allow participants to express their thoughts and feelings more naturally and comprehensively. With participants' permission, all interviews were audio-recorded and subsequently transcribed verbatim for analysis. To enhance the credibility of the data, the interview transcripts were returned to the participants for member checking, allowing them to verify the accuracy of their responses and clarify any ambiguous statements. This process helped ensure that the findings accurately represented the participants' lived experiences.

The interview data were analysed using thematic analysis following the six-phase framework proposed by Braun and Clarke (2006). The analysis began with repeated readings of the interview transcripts to gain a comprehensive understanding of the participants' experiences and identify meaningful patterns across the data. Initial codes were then generated and organized into broader categories based on similarities in meaning before being refined into final themes that addressed the research questions. Throughout the analysis, the researcher continuously reviewed and compared the themes with the original transcripts to ensure that the interpretations remained grounded in the participants' narratives. The trustworthiness of the study was established through member checking, maintaining an audit trail of the analytical process, and providing rich descriptions supported by participants' quotations. Through

these procedures, the study sought to present a credible and meaningful interpretation of EFL university students' experiences of using the KWL strategy during digital interpretative reading activities.

FINDINGS

Students' Perceptions of Using the KWL Strategy during Digital Interpretative Reading

The findings revealed that all participants perceived the KWL strategy as a meaningful learning tool that transformed their approach to reading digital texts. Before using the strategy, the participants described their reading process as passive because they tended to read continuously without having a clear purpose or reflecting on the information they encountered. However, after implementing the KWL strategy, they reported becoming more organized, purposeful, and actively involved throughout the reading process. The Know stage encouraged them to recall their prior knowledge before reading, the Want to Know stage motivated them to establish specific learning goals by generating questions, and the Learned stage provided opportunities to evaluate their understanding after completing the reading activity. As a result, the participants felt that reading digital texts became more meaningful because they were no longer reading only to complete classroom assignments but also to understand and interpret the ideas presented in the text. Anna explained, *"Honestly, using the KWL strategy made my learning experience much more organized. Before reading, I already knew what I was looking for and what I needed to pay attention to."* Similarly, Citra stated, *"At first, I thought the KWL chart was just another task, but after using it several times, I realized that it guided me to think more carefully while reading."* Bima also shared a similar perception by saying, *"Overall, my experience using the KWL strategy was positive because it made my reading process more structured. I became more aware of what I already knew, what I wanted to learn, and what I had finally understood after reading."* These responses indicate that the KWL strategy encouraged students to

become active participants in the reading process by providing a structured framework for planning, monitoring, and reflecting on their learning during digital interpretative reading activities.

The KWL Strategy Promoted Reflective Thinking and Active Engagement during Digital Reading

Beyond helping students organize their reading process, the findings revealed that the KWL strategy also encouraged participants to become more reflective and actively engaged while reading digital texts. Throughout the interviews, all participants described that each stage of the strategy prompted them to think more carefully about what they knew, what they wanted to discover, and how their understanding changed after reading. Instead of immediately searching for answers in the text, they learned to activate their prior knowledge, formulate meaningful questions, and continuously evaluate whether the information they encountered addressed their initial curiosity. This process enabled them to monitor their own comprehension and recognize gaps in their understanding, making reading a more conscious and purposeful activity. Anna explained, *"The KWL strategy made me realize that reading is not only about understanding the text but also about thinking about what I already know and comparing it with the new information that I found."* Likewise, Citra stated, *"When I wrote questions in the 'Want to Know' section, I became more curious about the topic. I read more carefully because I wanted to find the answers to my own questions, and after finishing the text, I reflected on whether I had really understood it."* Bima also expressed a similar experience, saying, *"The 'Learned' section helped me remember the important points because I had to summarize them in my own words. It also made me realize which parts I still did not understand, so I reread those sections."* These responses suggest that the KWL strategy supported reflective learning by encouraging students to plan, monitor, and evaluate their learning throughout the reading process. As a result, participants became more engaged with digital texts, demonstrated greater

awareness of their own thinking, and developed a more meaningful approach to interpretative reading rather than simply completing the assigned reading tasks.

Challenges Encountered While Applying the KWL Strategy during Digital Interpretative Reading

Although the participants described the KWL strategy as beneficial for supporting their reading process, they also acknowledged several challenges while implementing each stage of the strategy during digital interpretative reading. The most frequently reported difficulty occurred in the Want to Know stage, where participants found it challenging to formulate meaningful and analytical questions before reading because they were uncertain about what information would be presented in the text. In addition, participants experienced difficulties understanding unfamiliar academic vocabulary and interpreting complex ideas in English, which sometimes prevented them from answering their own questions after reading. Reading lengthy digital texts also required sustained concentration, and several participants admitted that they occasionally lost focus because of the amount of information presented on the screen. Despite these challenges, the participants explained that they gradually became more familiar with the KWL process and learned to overcome these difficulties through repeated practice. Anna stated, *“The most difficult part for me was writing questions in the ‘Want to Know’ section because I was afraid my questions were too simple or not relevant to the topic.”* Similarly, Citra explained, *“Sometimes I still found many unfamiliar words, so even though I had questions before reading, I needed more time to understand the text and connect the information with my answers.”* Bima also shared, *“Reading long digital texts was sometimes tiring, and I occasionally lost my concentration before finishing the article. However, the KWL chart reminded me of my reading purpose, so I could return to the important points more easily.”* These findings indicate that the challenges experienced by the participants were related not only to linguistic difficulties but also to the cognitive demands of generating questions,

maintaining attention, and interpreting information critically. Nevertheless, rather than preventing learning, these challenges became part of the reflective process through which students gradually developed more effective strategies for engaging with digital texts and regulating their own reading.

The KWL Strategy Supported the Development of Digital Literacy

The findings further revealed that the KWL strategy contributed to the participants' development of digital literacy by encouraging them to engage with digital texts in a more critical, reflective, and purposeful manner. Rather than reading digital materials passively, the participants described how the KWL stages helped them identify relevant information, connect ideas from different parts of the text, and evaluate whether the information addressed their learning objectives. They also became more selective in navigating digital resources because they had established clear reading goals before interacting with the text. Throughout the reading process, participants reported becoming more aware of how they searched for information, interpreted ideas, and reflected on the credibility and relevance of the content they encountered. This experience enabled them to use digital texts not only as sources of information but also as opportunities to construct knowledge through active inquiry and reflection. Anna explained, *“After using KWL, I did not immediately read everything from the beginning to the end. I first thought about what I already knew and what information I needed, so I could focus on the important parts of the text.”* Likewise, Citra stated, *“The strategy helped me become more careful when reading digital texts because I tried to connect new information with my previous knowledge and checked whether the text really answered my questions.”* Bima also emphasized, *“The ‘Learned’ section made me review what I had understood, so I became more confident that I had obtained the important information instead of just finishing the reading.”* These findings suggest that the KWL strategy supported students' digital literacy by promoting purposeful information seeking, critical evaluation of digital

texts, reflective learning, and self-monitoring throughout the reading process. Consequently, the strategy not only enhanced students' interpretative reading experiences but also encouraged them to become more independent and thoughtful learners when engaging with digital resources in EFL learning contexts.

DISCUSSIONS

The findings indicate that the KWL strategy provided a structured framework that transformed participants from passive readers into active and reflective learners during digital interpretative reading. Before using the strategy, participants tended to read digital texts without a clear purpose and often focused only on completing classroom tasks. However, implementing the Know, Want to Know, and Learned stages encouraged them to activate prior knowledge, establish reading goals, and evaluate their understanding after reading. These findings support Ogle's (1986) argument that KWL promotes active learning by guiding students to connect existing knowledge with new information through a systematic reading process. The findings are also consistent with Carr and Ogle (1987), who suggested that KWL encourages learners to organize information and monitor their comprehension while reading. From a phenomenological perspective, the participants' reflections demonstrate that the value of the KWL strategy extends beyond improving comprehension because it changes how students experience and interpret the reading process itself. Consequently, reading became a more meaningful learning activity in which students actively constructed understanding rather than simply receiving information from digital texts.

Another important finding is that the KWL strategy fostered reflective thinking throughout the reading process. Participants explained that each stage encouraged them to think carefully about what they already knew, identify what they wanted to learn, and evaluate what they had understood after reading. This reflective process increased their awareness of their own thinking and helped them recognize both their strengths

and the aspects that still required improvement. Such findings align with reflective learning theory, which emphasizes that meaningful learning occurs when students continuously evaluate and regulate their understanding through reflection. They also support Järvelä et al. (2023), who argued that reflection and learning regulation enable learners to become more actively engaged in constructing knowledge. Therefore, the present study suggests that KWL functions not only as a reading strategy but also as a reflective learning strategy that helps students develop greater responsibility for their own learning during digital interpretative reading activities.

Despite these positive experiences, participants also encountered several challenges while applying the KWL strategy, particularly when generating analytical questions, understanding unfamiliar vocabulary, and maintaining concentration while reading lengthy digital texts. These difficulties indicate that implementing KWL requires students to engage in higher-order thinking, which may initially increase cognitive demands, especially for EFL learners who are still developing their English proficiency. Nevertheless, participants emphasized that these challenges gradually became opportunities for learning because repeated use of the strategy enabled them to become more familiar with each stage and develop more effective reading habits. This finding suggests that the effectiveness of KWL does not depend solely on the strategy itself but also on continuous practice and appropriate instructional guidance from lecturers. Therefore, sufficient scaffolding and regular opportunities to use the strategy are essential to help students maximize its benefits during digital reading activities.

Finally, the findings demonstrate that the KWL strategy contributes to the development of students' digital literacy by encouraging purposeful, critical, and reflective engagement with digital texts. Rather than reading information superficially, participants learned to identify relevant ideas, evaluate whether the information addressed their learning goals, and integrate new knowledge with their previous understanding. These experiences are consistent with Leu et al. (2017), who argued

that digital literacy involves locating, evaluating, synthesizing, and communicating information effectively in digital environments, as well as Coiro (2021), who emphasized the importance of strategic and reflective thinking in digital reading comprehension. The present findings extend previous studies by showing that students' lived experiences reveal how the KWL strategy naturally supports these digital literacy practices through its structured stages of planning, questioning, and reflection. Consequently, integrating the KWL strategy into digital interpretative reading instruction may not only improve students' reading experiences but also help prepare them to become more independent, reflective, and digitally literate learners in higher education.

CONCLUSION

This study explored EFL university students' lived experiences of using the KWL (Know–Want to Know–Learned) strategy during digital interpretative reading activities. The findings revealed that the KWL strategy helped students become more active, organized, and reflective readers by encouraging them to activate prior knowledge, set clear reading purposes, and evaluate their understanding after reading. Through these processes, the participants experienced a more meaningful approach to digital reading rather than simply completing reading tasks.

The study also found that participants encountered several challenges while applying the KWL strategy, particularly in generating analytical questions, understanding unfamiliar vocabulary, and maintaining concentration when reading lengthy digital texts. Although these difficulties initially affected their reading process, participants gradually became more confident and familiar with the strategy through continuous practice. These experiences suggest that appropriate guidance from lecturers and regular opportunities to use the KWL strategy are important to help students maximize its benefits in digital reading activities.

Overall, the findings indicate that the KWL strategy supports not only students' interpretative reading but also the development of reflective thinking and digital literacy in EFL learning contexts. By encouraging students to engage critically and purposefully with digital texts, the strategy promotes more meaningful learning experiences and greater learner independence. Therefore, English language lecturers are encouraged to integrate the KWL strategy into digital reading instruction, while future researchers may explore its implementation in different English language skills, educational settings, or with larger and more diverse groups of participants.

SUGGESTIONS

Based on the findings of this study, the following suggestions are proposed:

1. For English Language Lecturers

English language lecturers are encouraged to integrate the KWL (Know–Want to Know–Learned) strategy into digital interpretative reading instruction to promote students' active participation and reflective learning. Lecturers should provide clear explanations and sufficient practice for each stage of the strategy, particularly in guiding students to formulate meaningful questions and reflect on their learning after reading. In addition, providing continuous feedback and classroom discussions may help students overcome reading difficulties and maximize the benefits of the KWL strategy in digital learning environments.

2. For EFL Students

EFL students are encouraged to apply the KWL strategy consistently when reading digital texts both inside and outside the classroom. Using the three stages of the strategy regularly may help students activate prior knowledge, establish clear reading purposes, and evaluate their understanding after reading. As a result, students

can gradually improve their critical reading skills, reflective thinking, and digital literacy while becoming more confident and independent learners.

3. For Future Researchers

Future researchers are encouraged to conduct similar studies involving a larger number of participants and different educational settings to obtain a broader understanding of students' experiences with the KWL strategy. Further research may also examine the implementation of the KWL strategy in other English language skills, such as writing, listening, or speaking, or investigate its integration with different digital learning platforms. These studies are expected to provide deeper insights into the effectiveness of the KWL strategy and contribute to the development of innovative teaching practices in EFL contexts.

ACKNOWLEDGEMENT

The author would like to express sincere gratitude to Dzurriyyatun Ni'mah, S.S., M.Pd., and Diah Retno Widowati, S.Pd., M.Pd. for their guidance, support, and encouragement throughout the completion of this study.

REFERENCES

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Carr, E., & Ogle, D. M. (1987). K-W-L Plus: A strategy for comprehension and summarization. *Journal of Reading*, 30(7), 626–631.
- Coiro, J. (2021). Toward a multifaceted heuristic of digital reading to inform assessment, research, practice, and policy. *Reading Research Quarterly*, 56(S1), S9–S31. <https://doi.org/10.1002/rrq.390>

- Järvelä, S., Malmberg, J., Haataja, E., Sobocinski, M., & Kirschner, P. A. (2023). What multimodal data can tell us about the role of socially shared regulation in collaborative learning. *Learning and Instruction*, 84, Article 101720. <https://doi.org/10.1016/j.learninstruc.2022.101720>
- Leu, D. J., Forzani, E., Timbrell, N., & Maykel, C. (2017). Seeing the forest, not the trees: Essential technologies for literacy in the primary-grade and upper elementary-grade classroom. *The Reading Teacher*, 71(2), 139–145. <https://doi.org/10.1002/trtr.1596>
- Ogle, D. M. (1986). K-W-L: A teaching model that develops active reading of expository text. *The Reading Teacher*, 39(6), 564–570.

Malang, July 27, 2026

Advisor I,

Dzurriyyatun Ni'mah, S.S., M.Pd.

NPP. 152409198932218