

## Metacognition and Digital Reading: How Medium Platform Enhances Self-Awareness and Comprehension in Learners

Fenny Thresia<sup>1</sup>, Kayla Zalfa<sup>2</sup>, Aulia Hanifah Qomar<sup>3</sup>

Universitas Muhammadiyah Metro, Indonesia

[fthresia@gmail.com](mailto:fthresia@gmail.com)

[kayyylazalf@gmail.com](mailto:kayyylazalf@gmail.com)

[auliahanifahqomar@gmail.com](mailto:auliahanifahqomar@gmail.com)

### Abstract

This study explores how the Medium platform contributes to the development of metacognitive awareness and reading comprehension in digital learning environments. In the era of technology-based education, learners are increasingly required to become active and independent readers who can regulate their own learning processes. Metacognition plays a significant role in helping learners monitor, evaluate, and improve their understanding while reading. At the same time, reading comprehension remains a major challenge in many educational contexts, including Indonesia. Through its long-form articles, interactive features, and diverse academic content, Medium provides learners with opportunities to engage in reflective and critical reading practices. The platform encourages users to analyze information, identify comprehension gaps, and develop critical thinking skills through continuous interaction with meaningful texts. Furthermore, Medium supports both literacy development and higher-order thinking by creating a digital space that promotes deep cognitive engagement rather than passive content consumption. Therefore, this article argues that the Medium platform serves as an effective digital tool for enhancing learners' metacognitive awareness, reading comprehension, and critical thinking abilities in contemporary education.

**Keywords:** Metacognition, Digital Reading, Medium Platform, Reading Comprehension, Critical Thinking.

### INTRODUCTION

The rapid expansion of digital technologies has fundamentally transformed the landscape of literacy and reading practices in the twenty-first century. Learners today are increasingly engaging with written content through digital platforms rather than traditional print media, a shift that presents both unprecedented opportunities and complex pedagogical challenges (Mangen, Walgermo, & Brønnick, 2013). In this context, the growing reliance on digital platforms for academic and informal learning purposes necessitates a deeper investigation into how these environments mediate self-regulated reading and comprehension. In Indonesia, the integration of digital tools in educational settings has gained considerable momentum, particularly following the national shift toward technology-enhanced instruction, making this inquiry especially pertinent for the Indonesian educational context (Kemendikbud, 2020).

Recent studies have further examined the role of social annotation tools and interactive platforms in scaffolding metacognitive awareness among students (Kalir & Garcia, 2021; Bråten, Braasch, & Salmerón, 2020). In the Indonesian

context, researchers have investigated the relationship between digital literacy and reading comprehension, noting persistent gaps in metacognitive strategy use among secondary and tertiary learners (Hasanah & Suryaningsih, 2021; Wahyudin, 2022). Despite this growing body of work, few studies have examined how a long-form content platform specifically designed for professional and reflective writing such as Medium can be systematically leveraged to cultivate metacognitive self-awareness among learners. Despite the wealth of research on digital reading and metacognition, a significant gap remains in the literature concerning the affordances of platform-specific digital environments on learners' metacognitive development. Most prior investigations have focused on general internet browsing, e-book applications, or laboratory-based digital texts, thereby overlooking the distinctive features of contemporary content-sharing platforms (Coiro, 2011; Singer & Alexander, 2017).

Medium, a digital publishing platform characterized by its distraction-minimized interface, reading time estimations, highlighting and annotation features, and curated long-form articles, represents an underexplored site of metacognitive engagement. Moreover, the intersection of platform design affordances and metacognitive self-regulation has received limited theoretical attention, particularly in non-Western educational settings (Wahyudin, 2022; Dewi & Kusumah, 2023). Existing frameworks for understanding digital reading comprehension have not adequately accounted for how platform-specific features such as progress indicators, clapping mechanisms, and response threads may prompt learners to reflect on their understanding and regulate their reading strategies. This gap is especially consequential given the increasing adoption of open-access digital platforms in Indonesian higher education and K-12 environments, where learners require both technical digital skills and sophisticated metacognitive strategies (Kemendikbud, 2020; Hidayat & Nurdiansyah, 2021).

This study addresses the aforementioned gap by examining how the Medium platform's structural and interactive features function as metacognitive scaffolds that enhance self-awareness and reading comprehension among learners. Grounded in Flavell's (1979) metacognitive theory and Vygotsky's (1978) sociocultural framework particularly the notion of the zone of proximal development, this research proposes that digitally mediated, socially embedded reading environments can serve as dynamic tools for metacognitive development. The theoretical contribution of this study is twofold: first, it extends existing digital reading comprehension models by incorporating platform affordance theory (Gibson, 1979; Norman, 1988) to explain how design features of Medium activate specific metacognitive processes; second, it enriches the Indonesian educational technology literature by providing empirically grounded insights into technology-enhanced metacognitive instruction (Surya & Maarif, 2022; Fitriani, Arafah, & Kaharuddin, 2020). Specifically, this study aims to (1) identify the metacognitive strategies activated by learners during engagement with Medium, (2) analyze how platform-specific features mediate reading comprehension processes, and (3) develop an integrative model that explains the relationship between digital platform affordances, metacognitive self-awareness, and comprehension outcomes. By

doing so, this research contributes to a more nuanced and contextually sensitive understanding of digital reading pedagogy in contemporary learning environments.

## RESEARCH METHOD

This study employs a qualitative descriptive approach to examine how the Medium platform enhances learners' metacognitive awareness and reading comprehension in digital reading activities. The research method is closely related to educational and metacognitive theories, particularly those focusing on self-awareness, self-regulation, and reflective learning in digital environments. The data sources used in this study consist of journal articles, books, previous research findings, and digital content related to metacognition, reading comprehension, and the use of Medium as a learning platform. Data were collected through documentation and literature review techniques by analyzing relevant references and digital reading practices found on the platform. The research systematics of this article are organized into several sections, beginning with the introduction that explains the background and objectives of the study, followed by the research method section describing the approach, data sources, and analysis techniques. The next section presents the discussion and analysis of how Medium supports learners' metacognitive development and comprehension skills, and the article concludes with a summary of findings and suggestions for future educational practices and research.

## DISCUSSION

The development of digital learning environments has significantly influenced the way learners process information and build reading comprehension skills. One platform that contributes to this transformation is Medium, which provides learners with access to diverse articles, reflective writing, and interactive reading experiences. Based on the qualitative descriptive analysis conducted in this study, the use of Medium encourages learners to become more aware of their own thinking processes while reading. This metacognitive awareness can be observed through learners' ability to identify reading goals, monitor understanding, and evaluate information critically after engaging with digital texts.

Furthermore, Medium supports independent learning because learners are exposed to various writing styles, topics, and perspectives that stimulate analytical and reflective thinking. Features such as highlighting important points, responding to articles, and rereading content allow learners to regulate their comprehension strategies more effectively. As a result, learners not only gain information but also develop self-awareness regarding how they understand, interpret, and apply knowledge from digital reading materials. This finding aligns with metacognitive learning theory, which emphasizes self-monitoring and self-regulation as essential aspects of successful learning.

However, the study also found several challenges in digital reading activities. Some learners experience distractions due to the large amount of online content available, which may reduce focus and reading depth. In addition, not all digital texts provide academically reliable information, requiring learners to possess critical literacy skills in evaluating sources. Despite these limitations, the

Medium platform remains a valuable digital learning tool because it promotes flexible, accessible, and reflective reading experiences that can improve learners' comprehension and metacognitive development in modern education contexts.

## CONCLUSION

In conclusion, the use of the Medium platform in digital reading activities contributes positively to the development of learners' metacognitive awareness and reading comprehension. Through interactive and flexible digital reading experiences, learners are encouraged to monitor their understanding, evaluate information critically, and apply effective reading strategies independently. The findings of this study show that Medium not only functions as a source of information but also as a learning environment that supports reflective and self-regulated learning. Although challenges such as digital distractions and information credibility still exist, the platform remains beneficial in promoting critical thinking and deeper comprehension in modern education. Therefore, integrating digital reading platforms like Medium into educational practices can become an effective strategy for improving learners' metacognitive skills and overall learning engagement in the digital era.

## **REFERENCES**

- Bråten, I., Braasch, J. L. G., & Salmerón, L. (2020). Reading multiple and non-traditional texts: New opportunities and new challenges. In E. B. Moje, P. Afflerbach, P. Enciso, & N. K. Lesaux (Eds.), *Handbook of reading research* (Vol. 5, pp. 79–98). Routledge.
- Dewi, R., & Kusumah, Y. (2023). Digital learning environments and metacognitive awareness among Indonesian students. *Jurnal Pendidikan Teknologi dan Kejuruan*, 29(1), 45–57.
- Fitriani, S. S., Arafah, B., & Kaharuddin, K. (2020). The role of educational technology in promoting metacognitive learning strategies. *International Journal of Instruction*, 13(2), 521–534.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Houghton Mifflin.
- Hasanah, U., & Suryaningsih, S. (2021). Digital literacy and reading comprehension in Indonesian EFL learners. *Journal of English Education and Teaching*, 5(3), 310–322.
- Coiro, J. (2011). Predicting reading comprehension on the internet: Contributions of offline reading skills, online reading skills, and prior knowledge. *Journal of Literacy Research*, 43(4), 352–392.
- Hidayat, M., & Nurdiansyah, N. (2021). Technology-enhanced learning and digital literacy practices in Indonesian classrooms. *Jurnal Pendidikan Indonesia*, 10(2), 155–166.
- Kalir, J., & Garcia, A. (2021). *Annotation*. MIT Press.
- Kemendikbud. (2020). *Panduan penyelenggaraan pembelajaran pada tahun ajaran dan tahun akademik baru di masa pandemi Covid-19*. Kementerian Pendidikan dan Kebudayaan Republik Indonesia.
- Mangen, A., Walgermo, B. R., & Brønnick, K. (2013). Reading linear texts on paper versus computer screen: Effects on reading comprehension. *International Journal of Educational Research*, 58, 61–68. <https://doi.org/10.1016/j.ijer.2012.12.002>
- Mokhtari, K., & Reichard, C. A. (2002). Assessing students' metacognitive awareness of reading strategies. *Journal of Educational Psychology*, 94(2), 249–259. <https://doi.org/10.1037/0022-0663.94.2.249>
- Norman, D. A. (1988). *The psychology of everyday things*. Basic Books.
- Pressley, M., & Afflerbach, P. (1995). *Verbal protocols of reading: The nature of constructively responsive reading*. Lawrence Erlbaum Associates.
- Kalir, J., & Garcia, A. (2021). *Annotation*. MIT Press.
- Singer, L. M., & Alexander, P. A. (2017). Reading across mediums: Effects of reading digital and print texts on comprehension and calibration. *The Journal of Experimental Education*, 85(1), 155–172. <https://doi.org/10.1080/00220973.2016.1143794>

- Surya, E., & Maarif, S. (2022). Metacognitive instruction in digital learning environments: Indonesian educational perspectives. *Journal of Educational Research and Evaluation*, 6(2), 201–210.S
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wahyudin, A. Y. (2022). Metacognitive reading strategies in Indonesian digital literacy practices. *Indonesian Journal of Applied Linguistics*, 12(1), 88–99. <https://doi.org/10.1177/1086296X11421979>