

**EXPLORING THE ARCHITECTURE OF ACADEMIC
DIGITAL LITERACY: A MULTIDIMENSIONAL ANALYSIS
OF EFL STUDENTS' THESIS WRITING**

THESIS

This Thesis is submitted to fulfill the requirement for the “Sarjana” degree in
English Language Education



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Hal: **Pengajuan Sidang Munaqasah**

Kepada

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Assalamualaikum Warahmatullahi Wabarakatuh

Semoga Ibu selalu dalam kesehatan dan lindungan dari Allah SWT. dalam setiap urusannya.

Setelah mengadakan pemeriksaan dan juga perbaikan yang penting, maka kami berpendapat bahwa skripsi atas nama **Abdul Karim Amrullah (22551001)** sebagai Mahasiswa dari Program Studi Tadris Bahasa Inggris, dengan judul **“Exploring The Architecture of Academic Digital Literacy: A Multidimensional Analysis of Efl Students' Thesis Writing”** sudah dapat diajukan dalam Sidang Munaqasah di Institut Agama Islam Negeri (IAIN) Curup

Demikian Permohonan ini kami ajukan, besar harapan kami agar Ibu dapat menyetujui hal ini. Terima kasih.

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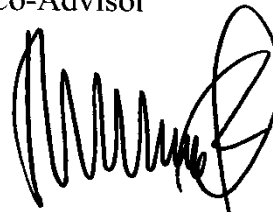
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PREFACE

All praise and thanks are due to Allah SWT. With the help of His blessings, the author has completed this thesis with admirable outcomes, putting forth the best effort throughout the journey. This thesis has been submitted to fulfill the requirement for the Sarjana degree at Institut Agama Islam Negeri (IAIN) Curup.

This research explores the architecture of academic digital literacy among EFL students during the thesis writing process. Specifically, it examines the types of digital literacy used, students' competency levels, and the challenges they face in implementing digital literacy practices. The author believes that by uncovering these dimensions, this study can contribute meaningfully to understanding how EFL students navigate digital tools in academic writing, particularly in the context of thesis production.

Although there is still room for improvement in the analysis and findings of this research, especially considering the growing need for studies on digital literacy in the English Department context, the author believes further research has the potential to make new breakthroughs. The author sincerely hopes this research proves useful for further exploration and serves as a valuable reference for students, educators, and researchers interested in the intersection of digital technology and academic writing.

Curup, 2026

Abdul Karim Amrullah

ACKNOWLEDGEMENT

Assalamualaikum Warahmatullahi Wabarakatuh

Alhamdulillahirabbil'alamin. All praise is due to Allah SWT, the Most Gracious, the Most Merciful, for His infinite blessings, guidance, and strength throughout the completion of this thesis. May peace and blessings forever be upon the Prophet Muhammad Shallallahu 'alaihi wa sallam, his family, and his followers.

This thesis, entitled "***Exploring The Architecture of Academic Digital Literacy: A Multidimensional Analysis of EFL Students' Thesis Writing***," is submitted to fulfill the requirement for the "Sarjana" degree in English Language Education at IAIN Curup. Throughout this journey, the author has received invaluable support, guidance, and encouragement from many individuals. For that, the author extends the deepest gratitude.

1. Prof. Dr. Idi Warsah, M.Pd.I. , as the Rector of IAIN Curup, for his leadership and dedication in advancing the institution.
2. Dr. Bakti Komalasari, M.Pd. , as the Dean of the Faculty of Tarbiyah, for her support and academic direction.
3. Khoirunnisa M.Pd, as the Head of the English Tadris Study Program for her support and leadership.
4. Dr. Prihantoro, M.Pd. , as the first advisor. Thank you for your exceptional guidance that has been clear, structured, and always encouraging.
5. Meli Fauziah, M.Pd. , as the second advisor, for her insightful feedback and unwavering support.

6. All lecturers and staff of the English Tadris Study Program, for their dedication, knowledge, and inspiration shared during the author's academic years.
7. The author's beloved parents, Rhoni Rodin and Babai Suhaimi, whose unshakable belief, endless prayers, sacrifices, patience, and unwavering support have been the greatest sources of strength throughout this journey.
8. The author's younger brothers and sister, for their presence, love, and unwavering support throughout this journey.
9. The author's group, El Valo Rek (formerly The Hut of People) , a circle of collaboration and fun that included the author's two bestfriends, Dwiki Farhan Hafizh and Muhammad Ikhsan Fachrizal.
10. The respondents who generously participated in this research, for their time, willingness, and contributions that made this study possible.

Finally, constructive feedback is always welcome. May this study contribute positively to the field of English education and technology. May Allah bless and reward all those who have supported this endeavor. Aamiin.

Wassalamualaikum Warahmatullahi Wabarakatuh

Curup, 2026

Abdul Karim Amrullah

MOTTO

**“Surround yourself with everyone that supported
you, never doubt yourself, always do the best and
be the best”**

—Abdul Karim Amrullah—

This thesis is proudly dedicated to my beloved parents, whose unconditional love and endless sacrifices have been the pillars of my strength, to myself, for the resilience and determination to persevere through every challenges, to my siblings, who have always been my companions in both struggle and joy, and to my future wife, whose prayers and belief in me have been a guiding light throughout this journey. To all of you, I offer this work as a humble testament of my deepest gratitude.

ABSTRACT

Abdul Karim Amrullah : Exploring The Architecture of Academic Digital Literacy: A Multidimensional Analysis of EFL Students' Thesis Writing
Advisor : Dr. Prihantoro M.Pd
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This study explores academic digital literacy among EFL students during thesis writing, focusing on the types of digital literacy used, competency levels, and challenges faced. Employing a qualitative case study design, it involved five students from the English Tadris Study Program at IAIN Curup. Data were collected through interviews, observations, and document analysis, then analyzed thematically. Findings reveal that students employ multidimensional digital literacy spanning technical, cognitive, social-emotional, sociocultural, and developmental dimensions. While all participants demonstrated competence in academic search engines, the universal integration of Generative AI tools marks a significant shift in academic writing. However, a critical gap emerged in the non-use of reference management and integrity tools among most participants. Competency levels ranged from Level 3 (Average) to Level 5 (Advanced Mastery), challenging the assumption that university students naturally possess high digital literacy. A notable technical-cognitive gap was observed, where cognitive ability did not translate to referencing proficiency. Students faced multifaceted challenges including technical barriers, cognitive difficulties, affective challenges, and instructional gaps. The interconnected nature of these challenges necessitates comprehensive institutional support. This study contributes to understanding academic digital literacy in EFL contexts and offers practical recommendations for developing targeted instructional interventions.

Keywords: Case Study, Digital Literacy, EFL Students, Multidimensional Analysis, Thesis Writing.

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LIST OF ABBREVIATION

AI : Artificial Intelligence
APA : American Psychological Association
ASSE : Advanced Search and Source Evaluation
ChatGPT : Chat Generative Pre-trained Transformer
DFH : Dwiki Farhan Hafizh
DL : Digital Literacy
DOI : Digital Object Identifier
EFL : English as a Foreign Language
FA : Fahmi Alfarissi
ICT : Information and Communication Technology
IMPT : Independence and Multi-Tool Proficiency
MAN : Muhammad Arya Nando
N/A : Not Applicable
NAN : Nur Aulia Nesa
NO : Not Observed
O : Observed
REFL : Reflective Development and Growth
RM : Rahma Madani
RQ : Research Question
SEM : Structural Equation Modeling
SPDLF : South Pacific Digital Literacy Framework
TAK : Tool Awareness and Knowledge
TBI : Tadris Bahasa Inggris (English Tadris Study Program)
VPN: Virtual Private Network

CHAPTER I

INTRODUCTION

A. Background of the Research

The rapid integration of digital technologies into higher education has fundamentally transformed how students access, engage with, and produce knowledge. Within this evolving landscape, digital literacy has become a fundamental skill, no longer optional, but essential. An interesting fact characterizing this era is the "digital native" paradox: while university students are often proficient in using social media and messaging apps, this familiarity frequently fails to translate into the advanced digital competence required for academic rigor. This discrepancy makes the topic particularly worth investigating, as access to technology alone does not equate to digital literacy.

The notion of the "digital native" has become a pervasive assumption in contemporary educational discourse. Addressed by Marc Prensky in 2001, the term refers to the generation born into the digital age, purportedly possessing an intuitive and innate fluency with technology that their predecessors, the "digital immigrants," lack.¹ Prensky argued that digital natives process information differently, think in hypertext, and are fundamentally better equipped to navigate the digital landscape. However, this assumption has been met with significant empirical and theoretical criticism. Wan Ng, in her seminal critique, challenges the deterministic view that mere exposure to

¹ Marc Prensky, "Digital Natives, Digital Immigrants," *On the Horizon* 9, no. 5 (2001)

technology translates into meaningful digital competence.² Ng argues that being a "digital native" does not automatically guarantee digital literacy, particularly in academic contexts where critical evaluation, ethical use, and strategic application of digital tools are paramount.

This critique forms the foundation of what has come to be known as the "digital native paradox," the striking irony that students who appear technologically proficient in their daily lives, often demonstrating fluency with social media, messaging applications, and entertainment platforms, frequently lack the advanced digital competencies required for rigorous academic work. According to Park et al., this divergence between social digital skills and academic digital literacy has been consistently observed in higher education settings, where students' familiarity with technology fails to translate into the sophisticated competencies needed for research and scholarly writing.³ In the context of higher education, this paradox manifests most acutely in research-intensive tasks such as thesis writing, where students must navigate complex academic databases, critically evaluate source credibility, manage references using specialized software, and maintain academic integrity through originality checking tools. The disconnect between students' perceived digital nativeness and their actual academic digital literacy has significant implications for pedagogy, curriculum design, and institutional support structures, as it suggests that digital competence in social domains does not transfer automatically to academic domains without explicit instruction and scaffolding.

² Wan Ng, "Can We Teach Digital Natives Digital Literacy?," *Computers & Education* 59, no. 3 (2012): 1065-1078.

³ Hyejin Park, Han Sung Kim, and Han Woo Park, "A Scientometric Study of Digital Literacy, ICT Literacy, Information Literacy, and Media Literacy," *Journal of Data and Information Science* 6, no. 2 (2021): 116-138.

Contextual evidence from the Indonesian higher education sector supports this, Rusydiyah et al. argue that within Islamic universities, students often possess high technical usage skills but lack the specific 'information literacy' required to filter credible sources from digital noise. In the high-stakes context of thesis writing, this inability to effectively navigate digital platforms can lead to significant academic pitfalls⁴. This is further complicated by the emergence of Generative AI, as noted by Dwivedi et al., the uncritical use of such tools can lead to 'automated plagiarism' and a superficial synthesis of ideas, where students bypass the necessary cognitive struggle of academic argumentation⁵.

This aligns with the observation by Ammade et al. that students often struggle to integrate digital tools due to a lack of training, which directly degrades the depth of their writing⁶. Furthermore, Al-Zubaidi warns that without digital literacy, the rising reliance on AI tools may erode critical thinking skills rather than enhance them⁷. Consequently, this study seeks to explore how students engage with digital literacy during the process of writing their theses, moving beyond basic usage to examine their practices, perceptions, and challenges.

⁴ Evi Fatimatur Rusydiyah, Eni Purwati, and Ardhi Prabowo, "How to Use Digital Literacy as a Learning Resource for Teacher Candidates in Indonesia," *Cakrawala Pendidikan* 39, no. 2 (2020): 305-318.

⁵ Yogesh K. Dwivedi et al., " 'So What If ChatGPT Wrote It?' Multidisciplinary Perspectives on Opportunities, Challenges and Implications of Generative Conversational AI for Research, Practice and Policy," *International Journal of Information Management* 71 (2023): 102642.

⁶ Salasiah Ammade, Suhardi Hasan Larekeng, and Abd Hafid, "Training on Technology Implementation in Writing Scientific Papers for the Educated Community of Unimuda Sorong," *Jurnal Pengabdian Dan Peningkatan Mutu Masyarakat (Janayu)* 6, no. 3 (2025): 147-157.

⁷ Khalid O. Al-Zubaidi, *The Challenges of Artificial Intelligence in the English Language Teaching, Learning, and Academic Publications* (ResearchGate, 2025).

The significance of digital literacy in thesis writing cannot be overstated. With the shift toward online libraries, virtual classrooms, and AI-driven writing tools, students are expected to possess not only foundational ICT skills but also a nuanced understanding of how digital platforms operate in academic contexts. Studies have shown that digital literacy directly impacts students' academic engagement, information sourcing, and analytical evaluation. For example, Getenet et al. demonstrated that higher levels of digital literacy significantly boost students' academic self-efficacy, which directly enhances their cognitive and behavioral engagement in complex tasks like thesis writing⁸. Similarly, Park et al. highlighted that modern digital literacy goes beyond basic software operation, encompassing the critical evaluation of information and ethical reasoning necessary for robust academic research.⁹ In today's information-rich world, lacking digital literacy not only limits a student's research capacity but may also lead to academic misconduct such as unintentional plagiarism due to poor referencing practices. Therefore, strengthening students' digital literacy is not just beneficial but imperative for fostering academic integrity, efficiency, and scholarly excellence.

However, despite the increasing ubiquity of digital tools in education, many students face challenges in effectively utilizing these resources during thesis writing. While students may be proficient in using social media, messaging apps, or basic word processing software, their ability to engage with more advanced digital platforms for academic writing, such as bibliographic

⁸ Seyum Getenet et al., "Students' Digital Technology Attitude, Literacy and Self-Efficacy and Their Effect on Online Learning Engagement," *International Journal of Educational Technology in Higher Education* 21, no. 3 (2024).

⁹ Park, Kim, and Park, "Scientometric Study of Digital Literacy," 116-138.

managers (e.g., Zotero, Mendeley), research databases, or AI writing aids, remains inconsistent. Ammade et al. observed that students often struggle with integrating digital tools into their academic work due to lack of training, which affects the quality and depth of their writing.¹⁰ In another study, Al-Zubaidi raised concerns about students' over-reliance on AI tools like ChatGPT for writing, which can potentially erode their critical thinking skills if not used judiciously.¹¹ This technological imbalance is even more pronounced in disciplines requiring intensive research and data handling, such as in the sciences or social sciences, where digital competence is critical for analyzing sources and constructing arguments. These issues highlight the reality that access to technology alone does not equate to digital literacy.

A growing body of literature has documented the vital interplay between digital literacy and academic success. Park et al. emphasized that modern digital literacy has evolved to encompass critical thinking and information evaluation, which are prerequisites for coherent academic argumentation.¹² Similarly, Audrin and Audrin highlighted information literacy as a core factor that empowers students to navigate and synthesize complex digital environments effectively.¹³ In terms of academic performance, Getenet et al. reported a statistically significant relationship between digital proficiency, student self-efficacy, and deep cognitive engagement in learning tasks.¹⁴ Furthermore, Reddy et al. demonstrated how structured digital literacy

¹⁰ Ammade, Larekeng, and Hafid, "Training on Technology Implementation," 147-157.

¹¹ Al-Zubaidi, Challenges of Artificial Intelligence.

¹² Park, Kim, and Park, "Scientometric Study of Digital Literacy," 116-138.

¹³ Catherine Audrin and Bertrand Audrin, "Key Factors in Digital Literacy in Learning and Education: A Systematic Literature Review Using Text Mining," *Education and Information Technologies* 27 (2022): 7395-7419.

¹⁴ Getenet et al., "Students' Digital Technology Attitude," 2024.

frameworks and models can successfully bridge the digital skills gap, preparing students for rigorous academic demands.¹⁵ Additionally, Sánchez-Cruzado et al. underscored the systemic urgency of this issue, noting that robust digital competence is an indispensable requirement across the entire academic spectrum.¹⁶ Together, these studies offer compelling evidence that digital literacy is not merely a supplementary skill, but a foundational competency that enhances academic performance and supports effective thesis development.

Despite the extensive scholarship on digital literacy, a critical methodological and contextual gap remains in the current literature. Recent high-impact studies have predominantly relied on quantitative, macro-level approaches to understand digital literacy. For instance, contemporary researchers frequently utilize scientometric analysis, text-mining algorithms, and large-scale statistical modeling to map the evolution of digital skills and measure their correlation with student self-efficacy and learning engagement. While these quantitative studies successfully prove that digital literacy impacts academic performance, they are heavily dependent on self-reported survey data. Consequently, they fall short in explaining how and why students experience specific technical, cognitive, and socio-emotional challenges in real-time academic scenarios.

Furthermore, existing research primarily examines digital literacy within generalized educational contexts, such as broad online learning environments,

¹⁵ Pratibha Reddy, Kamlesh Chaudhary, and Sabrina Hussein, "A Digital Literacy Model to Narrow the Digital Literacy Skills Gap," *Heliyon* 9, no. 3 (2023): e14878.

¹⁶ Cristina Sánchez-Cruzado, Raúl Santiago Campión, and M. Teresa Sánchez-Compañía, "Teacher Digital Literacy: The Indisputable Challenge After COVID-19," *Sustainability* 13, no. 4 (2021): 1858.

first-year university adjustment, or general teacher competencies. There is a notable lack of empirical investigation focused explicitly on the high-stakes, process-oriented task of undergraduate thesis writing. Thesis writing is not a monolithic activity but a complex series of interconnected stages, from topic selection and literature synthesis to citation management and final editing, each requiring a distinct set of academic digital competencies that general digital familiarity cannot fulfill.

To address these methodological and contextual gaps, the novelty of this study lies in its qualitative Case Study design. Unlike previous quantitative studies that measure literacy levels through standardized questionnaires, this research seeks to uncover the lived experiences of students. By utilizing triangulated data from in-depth interviews, direct observations of digital practices, and document analysis of thesis drafts, this study explores the specific types of digital tools used, assesses actual digital competencies, and identifies the real-world challenges faced by EFL students. Ultimately, this context-specific approach provides nuanced insights that current statistical models overlook, directly informing targeted academic interventions within the TBI program.

In light of these concerns, the general purpose of this study is to explore the role and impact of digital literacy in the thesis writing process among university students. By examining the relationship between students' digital competencies and their academic writing experiences, the study aims to offer a nuanced understanding of how digital literacy supports or hinders students in

achieving academic writing goals. It also seeks to inform the development of pedagogical strategies that can enhance students' digital learning environments.

More specifically, the study intends to: (1) explore the types of digital literacy used by students in writing their thesis; (2) describe how students demonstrate their digital literacy competency levels during their undergraduate thesis writing process; and (3) identify the challenges students face in implementing digital literacy during the thesis writing process. Through these objectives, the study not only fills a notable gap in the existing literature but also contributes to broader conversations around digital pedagogy and academic writing support.

In summary, this study posits that digital literacy is a crucial, yet under-examined, factor in students' academic writing success. While students are increasingly immersed in digital environments, there exists a disconnect between their day-to-day digital engagement and their ability to effectively navigate academic writing tasks. This research aims to bridge that gap by providing a detailed exploration of students' digital literacy practices in the context of thesis writing, and by offering insights that can help educators, administrators, and policymakers support students in developing the digital competencies needed for scholarly excellence.

Although university students today are surrounded by various digital technologies, many still face difficulties in integrating academic digital literacy throughout the thesis writing process, particularly in areas such as sourcing credible information, organizing references, and critically engaging with digital tools. Therefore, this research is titled **“Exploring The Architecture Of**

Academic Digital Literacy: A Multidimensional Analysis Of Efl Students' Thesis Writing” to examine how students navigate these challenges and opportunities.

B. Research Questions

1. What types of digital literacy do students use in writing their thesis?
2. How do students demonstrate their digital literacy competency levels during their undergraduate thesis writing process?
3. What challenges do students face in implementing digital literacy during their thesis writing process?

C. Research Objectives

1. To explore the types of digital literacy used by students in writing their thesis.
2. To describe how students demonstrate their digital literacy competency levels during their undergraduate thesis writing process.
3. To identify the challenges students face in implementing digital literacy during thesis writing.

D. Delimitation of the Research

The methodology of this research hinges upon the rigorous definition of a bounded system, or "case," to ensure contextual relevance and analytical focus. This study utilizes a case study design.

The phenomenon under investigation is the application of academic digital literacy. This phenomenon is examined within the confines of a specific, bounded system, defined as the English Tadris Study Program (TBI) at IAIN Curup. This selection is justified because the study seeks to investigate a

"contemporary phenomenon" (digital literacy practices) within a "real-life context" (the specific requirements and support structures of the TBI program), which Yin identifies as the preferred condition for case study methodology.

The bounding criteria for the case are three-fold:

1. Geographical/Spatial: Restricted exclusively to the TBI Program at IAIN Curup.
2. Population: Limited to undergraduate students enrolled in the TBI program who are currently engaged in their theses.
3. Process: The focus is exclusively on their engagement with digital tools and technologies as they navigate the different, discrete stages of thesis writing (e.g., identifying research problems, reviewing literature, managing references, and composing the final document).

The participants selected through purposive sampling (5 students) constitute the embedded units of analysis within this single case. The intensive examination of these embedded units allows for the identification of within-case patterns and variations, leading to specific, context-dependent findings applicable directly to the TBI program.

Crucially, this study does not aim to evaluate digital literacy through generalized, standardized testing or scoring systems. Instead, consistent with the methodology of Case Study research, the goal is to generate rich, thick data about the students' actual practices, perceptions, and challenges within the bounded system, leveraging the triangulation of multiple data sources rather than broad statistical generalizations. By strictly bounding the context (IAIN Curup TBI), the study aligns its findings directly with the institution,

enhancing the practical significance of the outcomes for administrators and lecturers seeking targeted intervention strategies.

E. Definition of Key Terms

To ensure clarity and conceptual consistency, the following key terms are defined with reference to established academic sources:

a) Digital Literacy

Digital literacy in this study is defined as "the ability to use digital technology, communication tools, and networks to access, manage, integrate, evaluate, and create information in order to function in a knowledge society".¹⁷ Specifically in academic settings, it encompasses students' critical thinking and evaluative skills when interacting with digital texts and tools.¹⁸

This study defines digital literacy as a multidimensional competency, comprising technical, cognitive, social-emotional, sociocultural, and developmental dimensions, that enables locating, evaluating, synthesizing, referencing, and ethically using digital sources. For TBI EFL students at IAIN Curup, it also requires navigating English academic interfaces and producing scholarly writing in English. The framework combines Ng's three dimensions with Kucer's sociocultural and developmental dimensions.

b) Thesis Writing

¹⁷ Paul Gilster, *Digital Literacy* (New York: Wiley Computer Publishing, 1997).

¹⁸ Wan Ng, "Can We Teach Digital Natives Digital Literacy?," *Computers & Education* 59, no. 3 (2012): 1065-1078.

Thesis writing refers to "an extended piece of writing involving personal research, written by a candidate for a university degree".¹⁹ It is understood as both a process and a product that demonstrates scholarly competence and research skills, encompassing problem formulation, literature review, methodology application, data analysis, and result presentation according to academic standards.

Thesis writing is conceptualized as a dynamic, multi-stage process requiring distinct competencies at each phase. Drawing on Swales and Feak's framework, it encompasses topic selection, literature review, data analysis, drafting, and final editing, referencing, and originality checking. Each stage demands specific digital literacy skills, from database navigation to reference management. This study examines how EFL students in the TBI program utilize digital literacy across these stages, recognizing that competence may vary significantly across phases.

c) EFL Students

EFL (English as a Foreign Language) students are learners who study English in contexts where it is not the native or dominant language. In this study, EFL students are those in the English Tadris Study Program at IAIN Curup who write their academic theses in English.

EFL students in this study are TBI students at IAIN Curup who write their theses in English. This linguistic context adds complexity to their digital literacy practices, as they must search for sources, evaluate texts, and produce scholarly writing in a second language. Their digital literacy

¹⁹ John M. Swales and Christine B. Feak, *Academic Writing for Graduate Students: Essential Tasks and Skills* (Ann Arbor: University of Michigan Press, 2004).

development is therefore distinct from native English speakers, and this study aims to capture the unique challenges and strategies that emerge in this context.

d) Multidimensional Analysis

Multidimensional analysis refers to an analytical approach that examines a phenomenon across multiple interconnected dimensions or perspectives simultaneously, rather than reducing it to a single factor or variable. In social science research, this approach is used to capture the complexity of human behavior, cognition, and social practices by recognizing that phenomena are rarely unidimensional and are best understood through the interplay of various contributing factors.

This study employs multidimensional analysis to examine academic digital literacy across five interrelated dimensions: technical, cognitive, social-emotional, sociocultural, and developmental. This approach provides a comprehensive understanding of how EFL students navigate digital tools throughout thesis writing, capturing not only what they do but also how they think, feel, and develop as digital literacy practitioners within the TBI program at IAIN Curup.

F. Significance of the Study

This study offers both theoretical and practical contributions to the field of digital literacy in academic writing, particularly within English as a Foreign Language (EFL) higher education contexts. It is relevant for students, lecturers, and institutions alike.

1. Theoretical Significance

Theoretically, this study enriches the literature on academic digital literacy by moving beyond generalized assessments to provide context-dependent knowledge. By employing a case study approach, the research provides an intensive, detailed examination of how DL manifests and is negotiated within the specific EFL academic environment of the TBI Program at IAIN Curup. The use of cross-unit analysis among the embedded units (students) allows for localized theory generation regarding how institutional variables, such as specific library resources, required software (e.g., Turnitin), and existing supervision practices, interact with and shape individual DL practices. This bridges the existing gap by connecting general literature findings to a highly specified context, offering a strong foundation for future comparative research across different institutional settings.

2. Practical Significance

- a) For Students: The findings provide a detailed, peer-driven understanding of successful strategies and common pitfalls in utilizing digital tools for thesis writing. By examining the detailed narratives and verified practices of their peers within the same program, students can gain practical awareness of how to effectively use reference managers, evaluate digital source credibility, and proactively manage plagiarism risks, thereby encouraging greater autonomy and successful resource seeking.
- b) For Lecturers: Supervisors and lecturers would gain a clear, evidence-based understanding of where students' digital competencies fall short within the program context. This awareness, grounded in triangulated data

from practices, perceptions, and documentation, allows for the design of more targeted academic guidance, especially concerning the integration of digital referencing tools, academic search filter usage, and ethical engagement with AI-based aids.

- c) For Institutions: The rigorous, contextually bounded nature of the Case Study design means that the findings can directly inform academic policymakers and institutional leaders at IAIN Curup. The outcomes provide precise, evidence-based recommendations for improving digital infrastructure, formal training integration (e.g., mandatory Mendeley workshops), and support systems, which are essential investments to promote a digitally competent academic culture within the TBI program.

CHAPTER II

LITERATURE REVIEW

A. Review of Related Theories

1. Definition of Literacy

Historically, literacy was defined through a reductionist lens, focusing on the ability to read and "sound out" text, while writing was often treated as a secondary or sequential skill. However, contemporary research conceptualizes literacy as a varied, dynamic, and multidimensional phenomenon. According to Stephen Kucer, being literate is defined as the ability to effectively and efficiently negotiate four interrelated dimensions; linguistic, cognitive, sociocultural, and developmental, within specific situational contexts.²⁰

A critical aspect of Kucer's definition is the distinction between implicit and explicit knowledge.²¹ Literacy users typically possess a vast amount of implicit knowledge that they employ when transacting with digital or print media, even if they cannot explicitly "talk about" those resources in a formal academic manner. Furthermore, literacy is not a terminal state of "being" but a continuous process of "becoming". Development potentially never ends, as students encounter new and novel academic events that require them to utilize literacy in increasingly sophisticated ways.

In conclusion, the transition from a reductionist view of literacy to a multidimensional perspective highlights the complexity of modern academic engagement. By adopting Kucer's framework, literacy is redefined not as a

²⁰ Stephen B. Kucer, "Literacy: Varied, Dynamic, and Multidimensional," *Journal of Family Strengths* 15, no. 2 (2015): Article 1.

²¹ Ibid.

static achievement of "being," but as a continuous process of "becoming" through the negotiation of linguistic, cognitive, sociocultural, and developmental dimensions.²² This shift emphasizes that students rely on a sophisticated reservoir of implicit knowledge to navigate novel academic challenges, suggesting that literacy development is an infinite, evolving journey shaped by the increasingly complex demands of the scholarly environment.

2. Definition of Digital Literacy

Digital literacy has evolved from a narrow understanding of technological skills into a broader and more critical concept that encompasses multiple dimensions of knowledge, communication, and ethical awareness. The term was first introduced by Paul Gilster, who defined digital literacy as “the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers.”²³ This definition emphasizes not only access to digital content but also interpretation and application.

Bawden expanded this view by incorporating information literacy, asserting that digital literacy involves skills in reading and understanding hypertext, evaluating digital resources, and navigating complex, multimedia digital environments. Thus, digital literacy intersects with media literacy, ICT competence, and critical thinking.²⁴

Martin proposed that digital literacy is a set of capabilities required to live, learn, and work in a digital society. He categorized it as a “lifelong learning”

²² Ibid.

²³ Gilster, *Digital Literacy*.

²⁴ David Bawden, "Origins and Concepts of Digital Literacy," in *Digital Literacies: Concepts, Policies and Practices*, ed. Colin Lankshear and Michele Knobel (New York: Peter Lang, 2008), 17-32.

process that includes awareness, knowledge, skills, and attitudes related to digital technologies.²⁵ This means digital literacy is not static, it grows and transforms as technology evolves.

Recent studies emphasize that digital literacy also includes metacognitive awareness, knowing when and why to use certain tools or strategies. Audrin and Audrin argue that students' ability to critically evaluate and select digital information sources, a core component of information literacy, reflects a deeper and more mature digital engagement.²⁶ Furthermore, Park et al. assert that digital literacy is not merely about the technical operation of tools, but involves a multidimensional competency where tools are used meaningfully, guided by critical thinking and analytical evaluation.²⁷

In summary, the conceptualization of digital literacy has transitioned from a technical focus on computer proficiency to a sophisticated, multidimensional competency essential for navigating the modern information landscape. By integrating Gilster's emphasis on information synthesis with Bawden's focus on critical evaluation and Martin's view of digital engagement as a lifelong process, digital literacy is established as a dynamic intersection of technical skills, metacognitive awareness, and critical thinking. Ultimately, these theoretical perspectives suggest that true digital literacy is defined not by the mere operation of tools, but by the meaningful, ethical, and analytical application of digital resources within scholarly and social contexts.

²⁵ Allan Martin, "A European Framework for Digital Literacy," in *Digital Literacies for Learning*, ed. Allan Martin and Dan Madigan (London: Facet Publishing, 2006), 151–176.

²⁶ Audrin and Audrin, "Key Factors in Digital Literacy," 7395-7419.

²⁷ Park, Kim, and Park, "Scientometric Study of Digital Literacy," 116-138.

3. The Theoretical Framework of This Study

To provide a comprehensive analytical lens for examining academic digital literacy in thesis writing, this study adopts a hybrid theoretical framework that strategically integrates the complementary strengths of two major literacy scholars: Wan Ng, and Stephen Kucer. This integration is necessary because neither framework alone sufficiently captures the full complexity of digital literacy practices in EFL thesis writing contexts.

Ng's framework, specifically designed for educational contexts, identifies three core dimensions that are directly observable in students' engagement with digital tools:

1. **Technical Dimension:** This encompasses the operational skills required to use digital devices, software, and platforms. It includes the ability to navigate interfaces, manage files, troubleshoot basic technical problems, and utilize specific academic tools such as reference managers (Mendeley, Zotero) and academic integrity checkers (Turnitin). In the thesis writing context, this dimension captures the student's "hands-on" competence with the digital infrastructure of academic research.
2. **Cognitive Dimension:** This dimension addresses the intellectual strategies involved in locating, evaluating, and synthesizing digital information. It includes critical evaluation of source credibility, strategic use of academic databases (employing Boolean operators, filters, and advanced search techniques), and the ability to synthesize information from multiple digital sources into coherent arguments. In thesis writing, this dimension is

particularly salient during the literature review and argument construction phases.

3. **Social-Emotional Dimension:** This dimension focuses on the affective, ethical, and interpersonal aspects of digital engagement. It includes responsible and ethical use of digital platforms, professional digital communication with supervisors and peers, awareness of cybersafety and academic integrity risks, and self-regulation in the use of AI writing and paraphrasing tools. This dimension recognizes that digital literacy is not merely a cognitive or technical exercise but is deeply intertwined with students' attitudes, values, and emotional responses to technology.²⁸

Relevance to This Study: Ng's framework is particularly suited for this research because it directly addresses the observable behaviors, cognitive processes, and affective responses that students exhibit when using digital tools for thesis writing. Its dimensions are concrete and operationally definable, making them amenable to triangulation through interviews, observation, and document analysis.

Kucer's framework, rooted in a broader conceptualization of literacy as a sociocultural and developmental phenomenon, provides the contextual depth that Ng's framework, while robust, does not fully address:

1. **Linguistic Dimension:** This involves mastery of the "surface structure" or physical vehicle of communication, the ability to decode and encode written language using appropriate grammatical, syntactic, and discourse conventions. In this study's context, the linguistic dimension is assumed

²⁸ Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078.

and controlled for: all participants are EFL students in the TBI program who have demonstrated sufficient English proficiency to undertake thesis writing in English. While the linguistic dimension is acknowledged as foundational, it is not the focus of this investigation because the study assumes participants possess the necessary linguistic competence to engage in academic writing at the undergraduate level. This dimension is excluded from the instrument to maintain focus on digital literacy practices rather than English language competence itself.

2. Cognitive Dimension: Similar to Ng's cognitive dimension, this addresses the mental strategies used to build meaning, such as predicting, monitoring, and revising. However, Kucer emphasizes that students are not passive recipients of information but active "meaning makers" who construct understanding through text-to-self, text-to-text, and text-to-world connections. In thesis writing, this manifests in how students connect their research to existing literature, identify gaps, and position their own contributions. For the purpose of this study, this dimension is integrated with Ng's cognitive dimension, as both frameworks address similar mental processes.
3. Sociocultural Dimension: This dimension frames literacy as a social act embedded in the identities, values, and norms of specific communities of practice. Students must act as "text critics" who analyze the power dynamics, ideologies, and perspectives embedded in academic texts. In the thesis writing context, this involves understanding and negotiating academic discourse norms, recognizing multiple scholarly perspectives,

and positioning oneself as a legitimate member of the academic community.

4. Developmental Dimension: This dimension reflects the student's evolving relationship with academic literacy over time. It recognizes that literacy is not a terminal state of "being" but a continuous process of "becoming." In thesis writing, this captures how students progressively develop more sophisticated digital and academic competencies as they move through the thesis stages, from initial topic selection to final editing.²⁹

This study integrates Ng's and Kucer's frameworks in the following manner:

Table 2.1 Integration of Ng's and Kucer's Frameworks

Framework	Dimensions Included	Rationale for Inclusion
Ng, W., Can we teach digital natives digital literacy?	1. Technical 2. Cognitive 3. Social-Emotional	These three dimensions directly map onto the observable skills, cognitive processes, and affective responses that students exhibit when engaging with digital tools. They form the operational core of the investigation.
Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings	1. Cognitive 2. Sociocultural 3. Developmental	These dimensions provide the necessary contextual depth to understand how digital literacy practices are shaped by academic community norms and how they evolve over the course of thesis writing, aspects that Ng's framework does not fully address.
Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School	1. Linguistic	This dimension is excluded from the focus of this study because: (a) participants are all EFL students who have already met the TBI program's English proficiency requirements (b) the study is concerned with

²⁹ Stephen B. Kucer, *Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings*, 4th ed. (New York: Routledge, 2014).

Settings		digital literacy practices, not English language competence per se. However, its role is acknowledged in the analysis where relevant.
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The integration of Wan Ng's and Stephen Kucer's frameworks in this study is driven by the need to capture the full complexity of academic digital literacy practices in EFL thesis writing contexts. Neither framework alone sufficiently addresses the multidimensional nature of digital literacy that students employ during thesis writing.

Ng's framework, specifically designed for educational settings, provides the operational specificity required to observe and classify students' observable digital behaviors. It identifies three core dimensions: technical, cognitive, and social-emotional. These dimensions directly map onto the skills, cognitive processes, and affective responses that students exhibit when engaging with digital tools, forming the operational core of this investigation.

However, Ng's framework does not fully address the contextual depth necessary to understand how digital literacy practices are shaped by academic community norms and how they evolve over time. This is where Kucer's framework becomes essential. Rooted in a broader conceptualization of literacy as a sociocultural and developmental phenomenon, Kucer's dimensions provide the necessary interpretive depth to understand how students negotiate academic discourse norms, participate in scholarly communities, and progressively develop more sophisticated competencies.

The linguistic dimension of Kucer's framework is excluded from this study because participants are all EFL students who have already met the TBI

program's English proficiency requirements. The study is concerned with digital literacy practices, not English language competence per se. However, its role is acknowledged in the analysis where relevant.

This hybrid approach is particularly appropriate for this study for four key reasons. First, the frameworks offer complementary strengths: Ng's framework provides operational specificity to observe and classify students' digital behaviors, while Kucer's framework provides interpretive depth to understand the social and developmental dimensions that shape those behaviors.

Second, the integration ensures contextual fit, allowing the study to examine digital literacy not as a decontextualized set of skills but as a practice embedded in the specific institutional, cultural, and temporal context of the TBI program at IAIN Curup.

Third, the combination provides comprehensive coverage, capturing the full spectrum of digital literacy phenomena that students experience during thesis writing. This ranges from the technical "how-to" moments to the sociocultural struggles with academic identity and the developmental trajectory of competence.

Finally, the hybrid framework demonstrates methodological alignment by mapping directly onto the three research questions. It provides a clear structure for the interview, observation, and document analysis instruments, ensuring that all data collection is theoretically grounded.

4. Digital Literacy in Academic Contexts

In the context of higher education, digital literacy has become an essential foundation for academic participation and scholarly communication.

University students are increasingly expected to demonstrate competence in navigating online databases, organizing references, synthesizing information from digital texts, and producing academic work that adheres to rigorous standards of originality and citation. Prihantoro emphasizes that technology-supported instruction, when integrated with multiliteracies pedagogy, can significantly enhance students' multimodal competence, a finding that underscores the importance of structured digital literacy development in EFL contexts.³⁰

Digital literacy in academic settings extends beyond basic technical use. It involves critical engagement with digital tools such as academic search engines (e.g., Google Scholar), reference managers (e.g., Mendeley, Zotero), writing enhancement platforms (e.g., Grammarly), and anti-plagiarism tools (e.g., Turnitin). These tools facilitate the key phases of academic writing (literature review, argument construction, drafting, editing, and citation), thus shaping the way students construct knowledge and demonstrate scholarly competence.

The practical benefits of integrating digital tools into academic writing have been empirically demonstrated in the TBI program context. Jumatul et.al, found that students at IAIN Curup utilized a variety of ICT online tools, including citation tools, search engines, editing tools, translation tools, monolingual and bilingual dictionaries, and bilingual concordancers, to enhance the quality of their English academic writing. The study concluded that the use of these digital tools significantly improved students' academic

³⁰ Prihantoro Prihantoro, "Facilitating Students' Multimodal Competence Development in Technology-Supported Speaking Class Through Multiliteracies Pedagogy," *Journal of English Education and Teaching* 9, no. 1 (2025)

writing quality, highlighting the importance of providing structured access and training for such tools in EFL academic contexts.³¹

Ultimately, the presence of digital literacy in academic writing environments represents not only a change in medium, but also a transformation in cognitive practices. It influences how students read, think, write, and learn. Therefore, digital literacy is not a peripheral skill but a central component of academic identity and scholarly success.

5. Challenges in Digital Literacy

While digital literacy offers significant benefits for academic writing, students often face a range of challenges in developing and applying these skills effectively. These challenges can be categorized into technical, cognitive, and affective dimensions, which often overlap and compound one another during the thesis writing process.

a. Technical Challenges

Technical issues remain the most visible barrier for many students. These include limited access to reliable internet connections, outdated hardware or software, and low familiarity with advanced academic tools. Dewi et al. found that even in institutions with access to technology, disparities in students' digital exposure result in unequal readiness to engage in academic digital tasks. Furthermore, students often lack formal training in using

³¹ Jumatul Hidayah et al., "Improving Students' Academic Writing Quality by Using ICT Online Tools at English Tadris Study Program in IAIN Curup," *English Franca: Academic Journal of English Language and Education* 8, no. 1 (2024)

essential academic software such as reference managers or database search filters.³²

b. Cognitive Challenges

Cognitive challenges arise when students struggle to evaluate the credibility, relevance, and bias of digital content. As Ng emphasizes, cognitive literacy involves critical thinking skills that go beyond retrieving information. Many students find it difficult to distinguish peer-reviewed articles from popular or unverified sources.³³ According to Mutiara et al., students also frequently misapply citation rules or misuse AI-generated content, leading to unintentional plagiarism or conceptual misrepresentation.³⁴

Another cognitive difficulty is information overload. Students often report feeling overwhelmed by the volume of digital resources available and uncertain about how to narrow down relevant sources for their literature review. Bartolone noted that when exposed to automated tools or large-scale databases, students may rely too heavily on top-listed results without evaluating their depth or academic rigor.³⁵

c. Social-Emotional Challenges

Emotional and psychological factors significantly affect how students interact with digital tools. Anxiety around technology, fear of making errors in formatting or citing, and lack of confidence in navigating academic

³² Dewi et. al, "Implications and Impact of Digital Literacy on Higher Education: A Systematic Literature Review," *Eduvest – Journal of Universal Studies* 4, no. 3 (2024): 123-134.

³³ Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078.

³⁴ Mutiara, Era, Slamet Suyanto, Nur Khafifah Luthfiyah B, Ghany Desti Laksita, and Zamzami Zamzami. 2024. "Improving Critical Thinking Skills Using Problem Based Learning: Systematic Literature Review". *Jurnal Penelitian Pendidikan IPA* 10 (12):988-95.

³⁵ A. Bartolone, *Digitally Collaborative: An Analysis of Peer Review in FYC Classes and the Affordances of Digital Tools* (Master's thesis, Florida Atlantic University, 2025).

platforms are common affective barriers. Consequently, as Getenet et al. demonstrated, students' attitudes and digital literacy levels directly predict their digital self-efficacy, those with lower self-efficacy are more likely to disengage from utilizing digital academic tools, hindering their overall learning engagement and academic output.³⁶

Moreover, the growing reliance on AI tools (such as paraphrasing bots or generative AI assistants) introduces ethical dilemmas and anxiety about academic integrity. Al-Zubaidi raised concerns that while such tools can offer convenience, they may also reduce students' engagement with the writing process, potentially hindering their critical thinking development.³⁷

Empirical evidence from the TBI program at IAIN Curup confirms these concerns. Fauziah et al. found that while AI writing tools enhance idea development, syntactic accuracy, and writing confidence among EFL students, they also pose significant challenges including shallow idea generation, rigid structures, machine-like language, inaccurate citations, limited access to premium AI features, and inadequate prompt literacy. More critically, the study identified a 'comfort paradox' where the efficiency gained from AI use leads to dependency, threatening independent thinking and authorial identity.³⁸

d. Instructional Gaps and Support

Another key challenge is the lack of structured instructional support. Many students learn digital academic tools informally, through peers or trial and

³⁶ Getenet et al., "Students' Digital Technology Attitude," 2024.

³⁷ Al-Zubaidi, Challenges of Artificial Intelligence.

³⁸ Meli Fauziah et al., "EFL Lecturers' and Students' Academic Writing Experience and Challenges in Using AI Writing Tools: A Qualitative Study," *Linguists: Journal of Linguistics and Language Teaching* (2025)

error, rather than via formal curriculum integration. As Turmudi found, students often express a desire for clearer guidance and mentorship in using digital tools within academic conventions.³⁹

Yunita and Susilawati further emphasize the importance of instructor modeling: when lecturers explicitly demonstrate how to use digital platforms in academic writing, students are more likely to adopt these practices effectively and ethically.⁴⁰

In summary, challenges in digital literacy during thesis writing are multifaceted. They involve not only access to technology but also the ability to critically engage with digital content, the confidence to apply it appropriately, and the presence (or absence) of instructional support. Recognizing these challenges is crucial for designing targeted interventions that go beyond basic digital training and instead cultivate holistic academic digital fluency.

6. Competency Levels of Digital Literacy

Wan Ng operationalize proficiency through a scale ranging from no understanding to advanced mastery.

1. Level 1 (No Understanding): The student is unaware of specific academic digital tools or concepts.
2. Level 2 (Low Understanding): Possesses basic awareness but requires constant external assistance for simple digital tasks.

³⁹ Dedi Turmudi, *The Experience and Capability of the Teacher-Educator Authors (TEAs) of Indonesia in Writing Articles for Publication in the Light of Bloom's Digital Taxonomy* (Universitas Negeri Malang, 2020).

⁴⁰ Sri Yunita and Susilawati Susilawati, "What Does Digitalization Offer to English for Specific Purposes Learning? A Systematic Literature Review," *Jurnal Pedagogy: Jurnal Penelitian dan Pengembangan Pendidikan* 12, no. 1 (2025): 55-70.

3. Level 3 (Average Understanding): Capable of independent functional use but struggles with complex features or troubleshooting.
4. Level 4 (High Level): Demonstrates independence in solving technical issues and using tools effectively for research goals.
5. Level 5 (Advanced): Strategically integrates multiple tools, performs intuitive critical evaluation, and creates complex scholarly content.⁴¹

The five competency levels presented above are primarily based on Wan Ng's digital literacy scale. However, the descriptors for Level 4 ("strategic integration of multiple tools") and Level 5 ("deep critical evaluation" and "full digital fluency") are enriched by two additional theoretical perspectives to capture the full complexity of advanced digital literacy:

First, Martin's Lifelong Digital Learning Framework emphasizes that advanced digital literacy involves not merely technical skills, but also awareness, knowledge, and attitudes that enable individuals to adapt to new technologies and learning contexts.⁴² This perspective aligns with Level 4, where students begin to strategically integrate multiple digital tools across different thesis stages, and Level 5, where students demonstrate reflective awareness of their own digital practices and continued commitment to learning new tools.

Second, Bawden's Advanced Critical Literacy argues that true digital literacy extends beyond operational competence to include critical evaluation of digital sources, understanding of hypertext navigation, and the ability to

⁴¹Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078.

⁴² Martin, "European Framework for Digital Literacy," 151-176.

synthesize information from complex digital environments.⁴³ This aligns with Level 5, where students perform intuitive and deep critical evaluation of sources, assessing author credibility, identifying potential bias, and recognizing multiple perspectives in digital texts.

Thus, the higher levels (4 and 5) represent the advanced stages where students move beyond basic functional use to strategic, critical, and reflective digital practices. These levels incorporate elements from both Martin and Bawden into Ng's foundational framework, providing a more comprehensive understanding of what constitutes advanced digital literacy in academic contexts.

7. The Process of Thesis Writing

Thesis writing is a complex, multi-stage academic endeavor that goes beyond simple text generation. It requires sustained cognitive effort and systematic methodological application. Drawing on established academic writing frameworks, such as those by Swales and Feak, the thesis writing process can be understood as a series of interconnected stages, each demanding specific competencies, including digital literacy.⁴⁴ These stages typically include:

1. **Topic Selection and Formulation:** In this initial phase, students must identify research gaps and formulate research questions. Digitally, this requires navigating academic databases, utilizing search filters, and conducting preliminary literature mapping.

⁴³ Bawden, "Origins and Concepts of Digital Literacy," 17-32.

⁴⁴ Swales and Feak, *Academic Writing for Graduate Students*.

2. Literature Review and Sourcing: Students gather, evaluate, and synthesize existing research. The digital challenge here is managing "information overload," critically distinguishing between peer-reviewed journals and unverified online sources, and employing digital libraries effectively.
3. Data Analysis and Drafting: This stage involves processing research data and structuring arguments. Students often rely on digital software for data analysis and utilize word processing features to build coherent, logically structured chapters.
4. Editing, Referencing, and Finalizing: The final stage demands rigorous attention to academic integrity and formatting. Digitally, this heavily involves the use of reference management software (e.g., Mendeley, Zotero) to ensure citation accuracy, as well as the use of anti-plagiarism tools (e.g., Turnitin) to verify originality.

Understanding these discrete stages is crucial because a student might possess high digital literacy in one stage (e.g., searching for topics) but struggle significantly in another (e.g., utilizing reference managers during the final editing stage). Therefore, assessing digital literacy dynamically across these stages provides a much more accurate picture of a student's actual competence.

B. Review of Related Findings

Recent global research has significantly expanded the understanding of digital literacy, moving beyond simple technical definitions to more complex, multidimensional conceptualizations. Park et al. conducted a comprehensive scientometric study analyzing research trends from 2000 to 2018, revealing a

distinct evolution in the field.⁴⁵ Their analysis of the intellectual structure of 728 articles demonstrates that digital literacy research has shifted from a focus on computer access and basic skills toward "21st-century skills," encompassing critical thinking, information evaluation, and collaborative learning. This finding is critical as it validates the theoretical framework of the current study, which positions digital literacy not merely as tool usage, but as a cognitive and social competency essential for high-stakes academic tasks like thesis writing.

Complementing this evolutionary view, Audrin and Audrin performed a systematic review using text mining on over 1,000 articles to identify the key factors defining digital literacy in education.⁴⁶ Their findings highlight a "plurality of terms" and identified three main streams of research: digital literacy as a competence, digital learning as a process, and 21st-century digital skills as a goal. However, they noted that while these definitions are theoretically robust, there remains a challenge in operationalizing them in specific educational contexts. This underscores the necessity of the current study, which seeks to translate these broad concepts into the specific, practical context of undergraduate thesis writing where these streams (competence, process, and skills) must converge.

In terms of practical interventions to address skills gaps, Reddy et al. proposed and validated the South Pacific Digital Literacy Framework (SPDLF).⁴⁷ Through a quantitative survey of first-year university students, they demonstrated that structured digital literacy models could effectively narrow the "digital divide" and improve students' readiness for workforce

⁴⁵ Park, Kim, and Park, "Scientometric Study of Digital Literacy," 116-138.

⁴⁶ Audrin and Audrin, "Key Factors in Digital Literacy," 7395-7419.

⁴⁷ Reddy, Chaudhary, and Hussein, "Digital Literacy Model," e14878.

demands. Their study found that students generally hold positive attitudes toward digital frameworks when they are clearly defined. However, Reddy et al. focused primarily on general educational settings and entry-level students, leaving open the question of how these frameworks hold up under the intense, independent pressure of final-year thesis research, a gap this present study intends to explore.

The psychological dimension of digital literacy, specifically how it influences student engagement, was rigorously examined by Getenet et al.⁴⁸ Using Structural Equation Modeling (SEM) on data from university students, they found a direct causal link between digital literacy, self-efficacy, and online learning engagement. Their findings suggest that students with higher digital literacy possess greater self-efficacy, which in turn significantly enhances their cognitive, emotional, and behavioral engagement in learning tasks. This is particularly relevant to the current research, as it suggests that the "struggles" students face in thesis writing may not be just technical, but deeply rooted in low digital self-efficacy, a variable that this case study explored through in-depth interviews.

Furthermore, the challenges students face cannot be decoupled from the instructional environment, as highlighted by Sánchez-Cruzado et al.⁴⁹ In their large-scale study of over 4,000 teachers, they identified a critical "digital competence gap" among educators themselves, with many reporting low skills in digital content creation and security. This finding provides a crucial context for the "Instructional Gaps" discussed in this proposal, if educators themselves

⁴⁸ Getenet et al., "Students' Digital Technology Attitude," 2024.

⁴⁹ Sánchez-Cruzado, Santiago Campión, and Sánchez-Compañá, "Teacher Digital Literacy," 1858.

struggle with digital integration, it explains why students often resort to self-taught, trial-and-error methods during their thesis writing. This systemic issue validates the need to investigate student practices from a "bottom-up" perspective to see how they cope with limited institutional guidance.

Despite these valuable contributions, a critical analysis of these studies reveals significant limitations that define the research gap for the current inquiry. First, the methodological dominance of quantitative approaches is evident. Park et al. utilized scientometrics, Audrin and Audrin used text mining algorithms, while Reddy et al., Getenet et al., and Sánchez-Cruzado et al. all relied on surveys and statistical modeling. While these methods effectively measure trends, correlations, and self-reported perception levels, they fail to capture the nuanced, lived experiences of students. They quantify that a gap exists, but do not deeply explain how students navigate this gap in real-time academic scenarios.

Secondly, there is a "contextual gap" regarding the specific stage of thesis writing. Most existing studies, such as those by Reddy et al. and Getenet et al., examine digital literacy in the context of general online learning or first-year university adjustment. Thesis writing, however, is a distinct academic activity requiring a specialized set of digital competencies, such as reference management, database filtering, and checking for originality, that differ significantly from general coursework. The generalized frameworks provided in the literature do not fully account for the specific, high-pressure cognitive demands of the thesis production process.

Moreover, the aspect of "process" is often overlooked in favor of "outcome." For instance, while Sánchez-Cruzado et al. assessed the final competency levels of educators, and Audrin and Audrin categorized definitions, there is limited empirical research tracking the workflow of students. The literature rarely details how a student moves from a vague research topic to a synthesized literature review using digital tools, or how they specifically overcome the "information overload" mentioned in broader studies. This study aims to map these specific procedural steps.

Additionally, the integration of the "socio-emotional" dimension in thesis writing remains under-explored in a qualitative manner. While Getenet et al. statistically linked literacy to emotional engagement, statistical data cannot fully articulate the anxiety of accidental plagiarism or the confidence gained from mastering a new research tool.⁵⁰ These affective elements are deeply personal and context-dependent, requiring a qualitative inquiry to be fully understood. The current proposal's use of in-depth interviews intends to flesh out these statistical skeletons with rich, narrative data.

The "digital native paradox" implies that students are tech-savvy, yet the literature by Park et al. suggests a divergence between social digital skills and academic digital literacy.⁵¹ Existing studies often conflate these two, assuming that general digital usage translates to academic success. By focusing specifically on Academic Digital Literacy within the bounded system of the TBI program, this research challenges that assumption, seeking to identify

⁵⁰ Getenet et al., "Students' Digital Technology Attitude," 2024.

⁵¹ Park, Kim, and Park, "Scientometric Study of Digital Literacy," 116-138.

exactly where general digital skills fail to support specific academic requirements.

Finally, the geographical and cultural context of the existing literature presents a gap. Much of the high-impact research, such as the studies reviewed here, originates from global or broad regional contexts (e.g., Spain for Sánchez-Cruzado et al., the South Pacific for Reddy et al.). There is a need for localized research that considers the specific infrastructure, language barriers (EFL context), and institutional culture of Indonesian Islamic higher education. The unique challenges faced by TBI students at IAIN Curup, such as specific library limitations or bilingual processing, are not captured in these international studies.

In conclusion, while the reviewed studies by Park et al., Audrin and Audrin, Reddy et al., Getenet et al., and Sánchez-Cruzado et al. establish a strong theoretical foundation regarding the importance and components of digital literacy, they leave a clear space for this investigation. By adopting a Qualitative Case Study design with a focus on the specific process of thesis writing, this research moves beyond the measurement of variables to the exploration of practices. It aims to fill the identified methodological and theoretical gaps by providing a "thick description" of how EFL students actually live, struggle, and succeed with digital tools in their final academic journey.

To achieve this "thick description" and move beyond generalized claims about digital tool usage, the current study recognizes the necessity of systematically connecting institutional provisions (e.g., available resources,

formal training, and supervision) with the observed practices and challenges of students within the TBI Study Program. Therefore, adopting a Case Study approach provides the exact methodological rigor needed to investigate this systemic link, explaining why specific cognitive gaps and technical barriers persist in a particular setting. By capturing the complex interplay of these local factors, the study yield findings that are not only rich in narrative but also directly applicable to the IAIN Curup environment, definitively fulfilling the need for the deeper, context-specific investigation identified in the literature.

CHAPTER III

METHODOLOGY

A. Research Design

This study employs a qualitative research design utilizing the case study approach. This methodology is strategically chosen to provide an intensive, detailed examination of the application of academic digital literacy (the phenomenon) within a "real-life, contemporary bounded system" (the case). As emphasized by Creswell, the case study is defined by its exploration of a bounded system over time, involving detailed data collection from multiple sources, making it ideal for the current objective of exploring a contemporary phenomenon in its real-life context.⁵²

The Case Study approach is warranted based on the nature of the research questions and the intended outcome:

1. Alignment with Research Questions: Case study is the preferred strategy for "how" or "why" questions when the researcher has little control over events. The research questions, exploring types, challenges, and competence, demand the contextual framework case study provides.⁵³
2. Focus on Bounded Context: Prioritizing particularization over statistical generalization,⁵⁴ this design defines the TBI Program at IAIN Curup as the

⁵² John W. Creswell and Cheryl N. Poth, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 4th ed. (Thousand Oaks: SAGE Publications, 2018).

⁵³ Robert K. Yin, *Case Study Research: Design and Methods* (Thousand Oaks: SAGE Publications, 2014).

⁵⁴ Stake, *Qualitative Research*.

central case with students as embedded units, allowing examination of how institutional context and individual practices intersect.⁵⁵

3. Rigor through Multi-Source Data: Case study research enables multiple data collection methods.⁵⁶ Triangulation of interviews, documents, and observation, as emphasized by Baxter and Jack, mitigates rigor limitations and enhances credibility through a multidimensional perspective.⁵⁷

B. Research Setting and Participants

The study was conducted within the English Tadris Study Program (TBI) at IAIN Curup, which served as the single, bounded case. The context is characterized by the program's requirements for EFL thesis writing, the availability of digital resources, and established academic norms for supervision and assessment.

Participants were undergraduate students who had completed their Proposal Seminar and were actively engaged in or had recently completed their theses. Purposive sampling was employed to select five information-rich participants, a sample size justified in case study research as it facilitates in-depth data collection and within-case descriptive analysis. The sample aimed for variation in digital proficiency to capture a breadth of strategies, challenges, and perspectives. Inclusion criteria included active enrollment in the thesis course, successful completion of the Proposal Seminar, demonstrated use of at least one digital academic tool, and willingness to participate in interviews. Students

⁵⁵ Zaidah Zainal, "Case Study As a Research Method," *Jurnal Kemanusiaan* 5, no. 1 (2017).

⁵⁶ Jillian Dawes Farquhar, *Case Study Research for Business* (London: SAGE Publications, 2012).

⁵⁷ Pamela Baxter and Susan Jack, "Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers," *The Qualitative Report* 13, no. 4 (2008): 544-559.

who did not engage with digital tools or who had not completed their Proposal Seminar were excluded.

C. Data Collection Methods

To ensure the rigor and validity of the Case Study findings, data collection relies on the fundamental principle of triangulation, collecting data from multiple independent sources to cross-verify patterns and provide a multi-dimensional view of students' digital literacy. As Baxter and Jack emphasize, utilizing different data sources is critical for achieving methodological robustness in case study research.⁵⁸

In this study, three data collection methods were employed: in-depth interviews, observation, and document analysis. The observation and document analysis checklists were explicitly used to confirm, challenge, and enrich the interview data. While interviews captured students' perceptions, beliefs, and self-assessments regarding their digital literacy practices, observations provided direct evidence of their actual digital behaviors in real-time, and document analysis provided physical artifacts, such as thesis drafts and reference lists, that objectively verified their technical competence, referencing accuracy, and application of digital tools. This triangulation of data sources ensures that the findings are credible, comprehensive, and grounded in both what students report and what they actually do.

1. Interview

In-depth semi structured interviews are the primary source, designed to capture the rich personal narratives, perceptions, and reflections of the

⁵⁸ Baxter and Jack, "Qualitative Case Study Methodology," 544-559.

embedded units. The semi-structured format balances structured inquiry with flexibility, allowing the author to probe technical details (tool usage), cognitive difficulties (source evaluation), and socio-emotional factors (anxiety, confidence). The interview guidance is aligned with the need for descriptive data concerning the types, challenges, and competency levels of digital literacy application throughout the thesis writing process. All interviews were audio-recorded and transcribed verbatim, with participant consent, ensuring fidelity to the participants' experiences.

2. Document Analysis

Case study methodology frequently utilizes documents and archival records as essential data sources. A supplementary document checklist is employed to gather supporting evidence that verifies students' self-reported digital practices. These documents serve as contextual and triangulation data, helping to assess the factual manifestation of digital literacy. Examples of these documents include the draft thesis (post-Proposal Seminar) and its associated reference list/bibliography. This document is retrieved directly from the TBI Study Program's (Prodi) archive/records or from Students, verifying the application of digital tools in formal academic output. Supplementary documents may include Turnitin originality reports or usage reports from reference managers (e.g., Mendeley library) to further verify practices reported in interviews.

The analysis of these artifacts allows for objective assessment of referencing accuracy, evidence of critical evaluation, and the physical

application of digital tools, which triangulates with interview data regarding self-assessed competence and ethical engagement.

3. Observation

Direct and participant observation are valuable techniques in case studies. The observation checklist is utilized to record the students' visible digital practices, focusing on technical competence and affective responses during specific tasks. This provides real-time data to complement the self-reported accounts. The checklist items focus on:

- a) Demonstrated use of academic search tools and database navigation skills.
- b) Application of reference managers for in-text citation and bibliography generation.
- c) Visible signs of hesitation, confidence, or difficulty when navigating academic platforms or engaging in plagiarism checks.

The combination of these three sources, interviews for meaning, documents for evidence, and observation for practice, establishes a robust chain of evidence required to draw credible conclusions within the bounded TBI case.

D. Instrument of the Research

In qualitative research, the author serves as the primary instrument. The instruments detailed below are developed to support deep, reflexive, and context-sensitive data collection necessary for the case study.

To ensure clarity and consistency in data collection and analysis, this study adopts the following operational definitions to distinguish between the Social-Emotional and Sociocultural dimensions:

1. **Social-Emotional Dimension:** Refers to the student's affective responses, ethical behavior, and interpersonal interactions in digital spaces. This dimension encompasses: (a) responsible and ethical use of digital platforms, including the use of academic integrity tools (e.g., Turnitin) and proper attribution of sources; (b) professional digital communication with supervisors and peers, including the maintenance of appropriate tone and etiquette in online interactions; (c) awareness of cybersafety and data security, such as protecting personal information and preventing data loss; and (d) self-regulation in the use of AI writing and paraphrasing tools, including the ability to make ethical decisions about when and how to use such tools.⁵⁹
2. **Sociocultural Dimension :** Refers to the student's understanding of and participation in academic communities of practice. This dimension encompasses: (a) awareness and application of academic discourse norms and conventions, including the correct use of citation styles (e.g., APA), formal academic register, and thesis formatting expectations within the TBI program; (b) critical understanding of power, ideology, and multiple perspectives in digital texts, including the ability to recognize different scholarly viewpoints and evaluate sources critically; and (c) active participation in academic digital communities, such as engaging in

⁵⁹ Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078..

discussions on ResearchGate, Academia.edu, or other platforms, and sharing academic resources with peers.⁶⁰

These operational definitions guide the development of interview questions, observation items, and document analysis criteria to ensure that each dimension is measured distinctly and consistently across all three data sources. By maintaining clear conceptual boundaries, the study avoids overlap between the two dimensions and ensures that findings accurately reflect the specific aspects of digital literacy under investigation.

Consistent with the hybrid theoretical framework described in Chapter II, the instruments developed for this study assess five dimensions of academic digital literacy:

Table 3.1 Five Dimensions of Academic DL

Dimension	Source	Focus of Assessment
Technical	1. Ng, W., Can we teach digital natives digital literacy?	Operational skills: tool operation, file management, troubleshooting
Cognitive	1. Ng, W., Can we teach digital natives digital literacy? 2. Gilster, P., Digital Literacy. 3. Bawden, D., Origins and concepts of digital literacy.	Intellectual strategies: source evaluation, database searching, synthesis
Social-Emotional	1. Ng, W., Can we teach digital natives digital literacy?	Affective and ethical aspects: integrity, communication, cybersafety, AI self-regulation
Sociocultural	1. Kucer, S.B., Dimensions of Literacy: A	Academic community participation: discourse norms, critical perspectives, scholarly engagement

⁶⁰ Kucer, S.B. Dimensions of Literacy.

	Conceptual Base for Teaching Reading and Writing in School Settings	
Developmental	1. Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings 2. Martin, A., A European framework for digital literacy	Growth over time: progressive improvement, self-directed learning, reflective awareness

1. Interview Guidance

The semi-structured interview guide is maintained, structured around the three dimensions of digital literacy (technical, cognitive, socio-emotional). These aligned directly with the research objectives. The questions are strategically designed to explore how the students negotiate the use of digital tools across various thesis stages.

The questions are designed to explore:

- a) The types of digital literacy used by students during thesis writing.
- b) The challenges students face when applying digital literacy tools in their academic work.
- c) The competency level of digital literacy students possess, as reflected in their confidence, competence, and ethical engagement with digital platforms.

Table 3.2 Blueprint Interview of Types of DL

No.	Aspect / Dimension	Indicators	Items	Theoretical Basis
1	Technical Dimension	Ability to operate academic digital platforms and tools	1. Which digital tools or platforms do you use during your thesis writing? How do you operate them to support specific academic tasks (e.g., searching sources, writing, referencing, or checking originality)?	Ng, W., <i>Can we teach digital natives digital literacy?</i>
		File management, data transfer, and storage practices	2. How do you manage your digital files, references, and thesis drafts across different devices or platforms?	
		Use of reference management software (e.g., Mendeley, Zotero)	3. Do you use a reference management tool such as Mendeley or Zotero? What features do you use? How independently can you operate them?	

		Use of academic integrity tools (e.g., Turnitin)	4. Do you use any academic integrity tools such as Turnitin? How do you use them to check and improve your thesis writing?	
		Independent troubleshooting of technical problems	5. When you encounter technical problems while using digital tools, how do you usually solve them? Can you give an example?	
2	Cognitive Dimension	Critical evaluation of source credibility, relevance, and bias	6. How do you determine whether a digital source is credible and academically appropriate for your thesis?	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Gilster, P., Digital Literacy</i> <i>Bawden, D., Origins and concepts of digital literacy.</i>
		Strategic use of academic databases and search tools	7. What search strategies do you use in academic databases? For example, do you apply filters, use Boolean operators, or limit results by date?	

		Ability to interpret and synthesise information from multiple digital sources	8. How do you synthesise information from multiple digital sources when constructing your literature review? Can you describe how you combine or compare ideas from different sources?	
		Understanding of copyright, plagiarism, and ethical use of digital content	9. How do you ensure that you are not committing plagiarism and that you are using digital sources ethically when paraphrasing or quoting?	
		Navigation of hypertext and complex digital information environments	10. When searching for sources online, how do you navigate between links, articles, and databases to find relevant information?	
3	Social-Emotional Dimension	Responsible and ethical use of digital platforms in academic contexts	11. How do you protect yourself from unintentional plagiarism and academic integrity violations when working with digital sources?	<i>Ng, W., Can we teach digital natives digital literacy?</i>

		Professional digital communication with supervisors and peers	12. How do you communicate digitally with your thesis supervisor? Which platforms do you use, and how do you maintain a professional tone?	
		Awareness of cybersafety and academic integrity risks	13. How do you make sure your data and academic work are safe when using digital platforms (e.g., saving files, avoiding data loss, protecting accounts)?	
		Self-regulation in the use of AI writing and paraphrasing tools	14. Do you use AI tools (e.g., ChatGPT or paraphrasing tools) in your thesis writing? How do you decide whether it is okay to use them?	
4	Sociocultural Dimension	Awareness of academic discourse norms and conventions in digital writing	15. How do you understand and apply the academic writing conventions expected in the TBI programme (e.g., citation style, register, and structure)?	<i>Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings</i>

		Critical understanding of power, ideology, and voice in digital texts	16. When reading journal articles, do you notice different viewpoints or perspectives? How do these influence the way you write your thesis?	
		Participation in academic digital communities as a legitimate member	17. Do digital platforms (e.g., ResearchGate, academia.edu) make you feel part of an academic community? How does this influence your thesis work? 18. Have you ever interacted with others in academic digital platforms (e.g., asking questions, sharing papers)? What was your experience?	

5	Developmental Dimension	Progressive growth in digital academic literacy across thesis-writing stages	19. Looking back at the beginning of your thesis process, how has your ability to use digital academic tools changed? 20. What differences do you notice in how you used digital tools at the beginning, middle, and final stages of your thesis?	<i>Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings</i> <i>Martin, A., A European framework for digital literacy. : Lifelong Digital Learning</i>
		Self-directed learning of new tools and digital strategies (Martin: awareness to ability)	21. Have you independently taught yourself a new digital tool or skill specifically to support your thesis writing? What prompted this and how did you go about it?	
		Reflective and metacognitive awareness of one's own digital literacy development	22. Do you reflect on your own digital literacy practices? What areas do you feel you still need to develop?	

Table 3.3 Blueprint Interview of Competency Levels of DL

No .	Levels	Indicators	Items	Theoretical Basis
1	Level 1: No Understanding	No awareness of specific academic digital tools	23. Before starting your thesis, were you aware of any digital tools specifically used for academic writing or research?	<i>Ng, W., Can we teach digital natives digital literacy?</i>
		Unable to identify platforms relevant to thesis research	24. Could you name any digital tools specifically designed for academic research or reference management?	
2	Level 2: Low Understanding	Basic awareness of academic tools but requires constant external assistance	25. Do you often need help from others when using academic databases or referencing tools? In what situations?	<i>Ng, W., Can we teach digital natives digital literacy? Martin, A., A European framework for digital literacy.</i>
		Struggles to perform simple digital academic tasks independently	26. Which digital tasks related to your thesis (e.g., searching for sources, using databases, managing references) do you find most difficult, and why?	

3	Level 3: Average Understanding	Capable of routine and functional digital task completion independently	27. Which digital tools can you use independently in your thesis work? Which ones do you still need help with? What tasks do you usually perform with them? 28. How do you usually cite digital sources in your thesis? How do you make sure your citations are correct?	Ng, W., <i>Can we teach digital natives digital literacy?</i> Gilster, P., <i>Digital Literacy</i>
		Struggles with complex or unfamiliar features and advanced tool functions	29. How do you use advanced search features (e.g., filters, Boolean operators) when searching for sources? Can you give an example?	
		Partial awareness of ethical issues, consistent with Gilster's foundational usage	30. What do you understand about plagiarism or ethical use of sources? Are there any parts you still feel unsure about?	

4	Level 4: High Level	Demonstrates independence in solving technical issues	31. When a technical problem arises in Mendeley, a database, or Turnitin, what steps do you take to resolve it?	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Martin, A., A European framework for digital literacy.</i>
		Uses academic digital tools effectively and purposefully across thesis stages	32. How do you organise your digital workflow, for example, how do you manage references, drafts, and notes across different stages of writing?	
		Begins to strategically integrate multiple tools, consistent with Martin's 'skills and knowledge' stage	33. Do you use more than one digital tool together when working on your thesis? How do you combine them?	
5	Level 5: Advanced Mastery	Strategically integrates multiple digital tools in a seamless academic workflow	34. Do you integrate several digital tools together (e.g., Google Scholar, Mendeley, Grammarly, Turnitin) in a coordinated workflow? How do these complement each other?	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Bawden, D., Origins and concepts of digital literacy.</i> <i>Martin, A., A European</i>

		Performs intuitive and deep critical evaluation of digital sources	35. How do you evaluate the quality of a source (e.g., author credibility, possible bias, and point of view)? Can you give an example?	<i>framework for digital literacy.</i>
		Creates complex original academic content with full digital fluency ,consistent with Bawden's 'advanced critical literacy' and Martin's 'attitudes and reflection'	36. How do you decide which digital tools or strategies are best to use in different stages of your thesis?	

Table 3.4 Blueprint Interview of Challenges of DL

No.	Challenges	Indicators	Items	Theoretical Basis
1	Technical Challenges	Limited or unstable internet access disrupting academic research workflow	37. What technical difficulties have you experienced during your thesis writing (e.g., internet problems, device issues, or software access)? How do these affect your work?	<i>Ng, W., Can we teach digital natives digital literacy?</i>
		Inadequate hardware or software for academic digital tasks of academic tools	38. Have you ever lost work or experienced data errors during your thesis process? How did you respond?	
		Unfamiliarity with advanced features	39. Are there features in academic tools (e.g., Mendeley, databases) that you find difficult to use? Which ones and why?	
		Absence of institutional access to licensed databases or software	40. Are there any academic tools or databases that you cannot access because of limited subscription or institutional access? How does this affect your thesis work?	

2	Cognitive Challenges	Difficulty evaluating the credibility and academic relevance of digital sources	41. Have you ever struggled to distinguish a peer-reviewed article from a non-scholarly or commercially motivated source? How do you handle this?	Ng, W., <i>Can we teach digital natives digital literacy?</i> Gilster, P., <i>Digital Literacy</i>
		Information overload and inability to filter results strategically	42. How do you manage the volume of results returned by a database search? What strategies help you identify the most relevant sources?	Bawden, D., <i>Origins and concepts of digital literacy.</i>
		Misapplication of citation conventions or unintentional plagiarism	43. Have you experienced difficulties with citation formatting or inadvertently encountered an academic integrity issue? What happened and how did you resolve it? 44. Do you find it challenging to paraphrase academic sources without reproducing their exact wording? What strategies do you use?	

		Difficulty constructing coherent arguments from multiple digital sources	45. Do you find it difficult to combine ideas from different sources into one clear argument? Can you explain?	
3	Social-Emotional Challenges	Digital anxiety and avoidance of unfamiliar academic tools	46. How confident do you feel when using digital academic tools for your thesis? Are there specific tools or tasks that cause anxiety or reluctance?	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Martin, A., A European framework for digital literacy.</i>
		Low digital self-efficacy in academic writing contexts	47. Have you ever felt overwhelmed or discouraged by digital tools during the thesis process? How did this affect your progress and motivation?	
		Ethical anxiety and uncertainty regarding AI tool use	48. Do you use AI tools (e.g., ChatGPT or paraphrasing tools) in your thesis writing? How do you decide whether it is okay to use them?	

		Fear of plagiarism and academic misconduct ,linked to Martin's 'attitudes' component	49. Are you worried about making mistakes in citation or plagiarism? How does this affect the way you write your thesis?	
4	Instructional & Support Gaps	Absence of structured formal training in academic digital tools	50. Did you receive any formal training (in class or through your institution) on how to use academic tools such as Mendeley, Turnitin, or academic databases? What did you learn? 51. What form of support or training would have been most beneficial to you at the beginning of your thesis writing journey?	<i>Martin, A., A European framework for digital literacy. : Lifelong Digital Learning</i> <i>Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings</i>
		Insufficient instructor modelling of academic digital practices	52. Do you feel your thesis supervisor provides adequate guidance on the use of digital academic tools? In what ways?	

		Dependence on informal peer learning and trial-and-error approaches	53. How did you learn to use the digital tools you currently rely on for your thesis? (Self-taught, peer instruction, YouTube, lectures, or a formal workshop?)	
		Inadequate institutional infrastructure for digital literacy support	54. Do you think your university provides enough access to digital tools and resources (e.g., databases, software)? Why or why not?	

All interviews were audio-recorded (with participant consent) and transcribed for analysis. Probes and follow-up questions adjusted dynamically depending on participant responses, ensuring that the data capture not only what students did but also how they experienced and interpreted their use of digital literacy.

2. Document Checklist

A supplementary document checklist is employed to gather concrete, physical evidence of students' actual digital practices during the thesis writing process. In Case Study research, documents serve as vital contextual artifacts that allow the author to cross-verify and triangulate the self-reported claims made during interviews.

Table 3.5 Blueprint Document Checklist of Types of DL

No.	Aspect / Dimension	Indicators	Items	Theoretical Basis
1	Technical Dimension	Ability to operate academic digital platforms and tools	1. Formatting and Technical Control: Analyze the thesis for consistency in formatting, indicating ability to use word processing tools effectively.	<i>Ng, W., Can we teach digital natives digital literacy?</i>
		File management, data transfer, and storage practices	2. File Organisation & Versioning: Examine available draft versions to identify patterns of file organisation, naming conventions, and version control practices.	
		Use of reference management software (e.g., Mendeley, Zotero)	3. Evidence of Tool-Assisted Referencing: Analyze the reference list and in-text citations for consistency, formatting accuracy, and indications of reference management tool usage.	
		Use of academic integrity tools (e.g., Turnitin)	4. Use of Academic Integrity Tools: Review similarity reports (e.g., Turnitin) for evidence of originality checking and revisions based on	

			similarity results.	
		Independent troubleshooting of technical problems	5. Evidence of Independent Problem-Solving: Examine revision history or supervisor comments to identify whether technical issues are resolved independently over time.	
2	Cognitive Dimension	Critical evaluation of source credibility, relevance, and bias	6. Source Credibility & Diversity: Analyze the thesis for the diversity, credibility, and academic quality of sources used (e.g., peer-reviewed journals, recent publications).	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Gilster, P., Digital Literacy</i> <i>Bawden, D., Origins and concepts of digital literacy</i>
		Strategic use of academic databases and search tools	7. Evidence of Strategic Searching (Indirect): Infer from the range and relevance of sources whether the student employed effective search strategies.	

		Ability to interpret and synthesise information from multiple digital sources	8. Depth of Argumentation: Examine the thesis for depth of argument, including critical engagement with sources rather than mere description. 9. Quality of Synthesis: Analyze how the student integrates multiple sources (e.g., comparing, contrasting, and connecting ideas across studies).	
		Understanding of copyright, plagiarism, and ethical use of digital content	10. Citation Accuracy & Ethical Use: Review the accuracy and consistency of citations and referencing to identify proper attribution and ethical use of sources.	
3	Social-Emotional Dimension	Responsible and ethical use of digital platforms in academic contexts	11. Citation & Attribution Accuracy: Review the thesis for correct citation and referencing to identify proper attribution.	<i>Ng, W., Can we teach digital natives digital literacy?</i>
		Professional digital communication with supervisors and peers	12. Supervisor Feedback: Analyze supervisor comments related to ethical issues (e.g., plagiarism, improper paraphrasing,	

			unclear sources).	
		Awareness of cybersafety and academic integrity risks	13. Plagiarism Indicators: Examine similarity reports or feedback for signs of plagiarism or citation problems.	
		Self-regulation in the use of AI writing and paraphrasing tools	14. AI Use Indicators (Indirect): Look for indications of AI-assisted writing and how it is integrated or revised.	
4	Sociocultural Dimension	Awareness of academic discourse norms and conventions in digital writing	15. Academic Writing Conventions: Analyze the thesis for adherence to academic conventions (e.g., structure, citation style, formal language).	<i>Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings</i>

		Critical understanding of power, ideology, and voice in digital texts	16. Critical Engagement: Examine whether the student critically engages with sources rather than simply describing them. 17. Diversity of Perspectives: Analyze whether the thesis includes and engages with multiple perspectives or viewpoints. 18. Scholarly Voice: Examine how the student positions their own voice in relation to other scholars (e.g., agreeing, contrasting, evaluating).	
5	Developmental Dimension	Progressive growth in digital academic literacy across thesis-writing stages	19. Referencing Development: Compare early and later drafts to identify improvements in citation and referencing consistency. 20. Source Quality Development: Examine whether the quality and relevance of sources improve over time.	<i>Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings</i> <i>Martin, A., A European framework for digital literacy. :</i>

		Reflective and metacognitive awareness of one's own digital literacy development	21. Depth of Academic Engagement: Analyze whether the student demonstrates deeper academic engagement (e.g., better synthesis, stronger arguments) in later drafts.	<i>Lifelong Digital Learning</i>
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Table 3.6 Blueprint Document Checklist of Competency Levels of DL

No	Levels	Indicators	Items	Theoretical Basis
1	Level 1: No Understanding	Relies entirely on basic internet browsing with no structured academic tool use	22. Thesis reference list shows no evidence of structured referencing, sources are informal, unverified, or improperly attributed.	<i>Ng, W., Can we teach digital natives digital literacy?</i>
2	Level 2: Low Understanding	Struggles to perform simple digital academic tasks independently	23. Reference list contains persistent formatting errors, broken links, or incomplete entries across multiple chapters.	<i>Ng, W., Can we teach digital natives digital literacy?</i>

3	Level 3: Average Understanding	Capable of routine and functional digital task completion independently	24. Referencing Consistency: Analyze the reference list for general consistency with occasional formatting errors.	<i>Ng, W., Can we teach digital natives digital literacy?</i>
		Struggles with complex or unfamiliar features and advanced tool functions	25. Use of Advanced Sources (Indirect): Examine whether the sources indicate use of advanced search strategies.	
4	Level 4: High Level	Uses academic digital tools effectively and purposefully across thesis stages	26. Referencing Quality: Analyze the thesis for consistent and well-structured referencing. 27. Advanced Source Use: Examine whether the sources show evidence of advanced search strategies. 28. Bibliography Organisation: Analyze whether the bibliography is clearly organised and systematically constructed.	<i>Ng, W., Can we teach digital natives digital literacy?</i>

5	Level 5: Advanced Mastery	Performs intuitive and deep critical evaluation of digital sources	29. Source Quality: Analyze whether the references are diverse, credible, and relevant.	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Bawden, D., Origins and concepts of digital literacy</i> <i>Martin, A., A European framework for digital literacy.</i>
		Creates complex original academic content with full digital fluency, consistent with Bawden's 'advanced critical literacy' and Martin's 'attitudes and reflection'	30. Source Integration: Analyze whether the thesis integrates multiple sources in a sophisticated and connected way. 31. Critical Argument: Examine whether the thesis presents a strong and well-developed critical argument. 32. Academic Integrity: Review originality reports or citation practices to confirm proper academic integrity.	

Table 3.7 Blueprint Document Checklist of Challenges of DL

No.	Challenges	Indicators	Items	Theoretical Basis
1	Technical Challenges	Absence of institutional access to licensed databases or software	33. Examine whether reference lists and drafts show signs of tool-access limitations, such as incomplete bibliographic data or inconsistent formatting.	<i>Ng, W., Can we teach digital natives digital literacy?</i>
2	Cognitive Challenges	Cognitive difficulties in evaluating sources, filtering information, applying citations, and synthesising arguments from multiple digital sources	34. Analyze thesis chapters for source diversity, quality of argumentation, accuracy of attribution, and evidence of deep engagement with the literature.	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Gilster, P., Digital Literacy</i> <i>Bawden, D., Origins and concepts of digital literacy</i>
3	Social-Emotional Challenges	Ethical anxiety and fear of academic misconduct related to AI use and plagiarism	35. Review supervisor feedback forms and thesis drafts for any indications that ethical use of digital tools or AI assistance has been questioned or flagged.	<i>Ng, W., Can we teach digital natives digital literacy?</i>
4	Instructional & Support Gaps	Absence of structured formal training in academic digital tools	36. Review methodology sections, and appendices for evidence of whether formal tool training is referenced or implicitly absent.	<i>Martin, A., A European framework for digital literacy.</i> <i>Kucer, S.B., Dimensions</i>

				<i>of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings</i>
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Participants asked to voluntarily provide access to these relevant digital materials. It is important to emphasize that these documents is used strictly to triangulate digital engagement data, not for formal content analysis.

3. Observation Checklist

To triangulate the self-reported data from interviews and the physical artifacts from document analysis, an observation checklist utilized. Direct observation allows the author to record students' real-time, visible practices of digital literacy as they actively navigate the thesis writing process. The checklist is systematically structured around the core dimensions of the study: the types of digital tools utilized, the immediate challenges encountered (both technical and affective), and the observable indicators of digital competence.

During the observation sessions, the author assessed each behavioral indicator using a two-point scale: Observed (O), or Not Observed (NO). Field notes is recorded to capture specific contextual details. The observation items are detailed in Tables below:

Table 3.8 Blueprint Observation Checklist of Types of DL

No.	Aspect / Dimension	Indicators	Items	Theoretical Basis
1	Technical Dimension	Ability to operate academic digital platforms and tools	1. Platform & Tools Operation: Observe whether the student can independently navigate and operate academic digital platforms to perform thesis-related tasks.	<i>Ng, W., Can we teach digital natives digital literacy?</i>
		File management, data transfer, and storage practices	2. File Management & Storage: Observe how the student organises, stores, and manages digital files (e.g., folder structure, file naming, cloud storage, version control).	
		Use of reference management software (e.g., Mendeley, Zotero)	3. Reference Management Tools: Observe whether the student can import, organise, and use references using tools such as Mendeley or Zotero.	

		Use of academic integrity tools (e.g., Turnitin)	4. Academic Integrity Tools: Observe whether the student uses tools such as Turnitin to check originality and revise their work accordingly.	
		Independent troubleshooting of technical problems	5. Independent Troubleshooting: Observe whether the student can identify and solve technical problems independently when using digital tools.	
2	Cognitive Dimension	Critical evaluation of source credibility, relevance, and bias	6. Source Evaluation: Observe whether the student critically evaluates sources (e.g., checking author credentials, journal quality, publication date, and potential bias).	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Gilster, P., Digital Literacy</i> <i>Bawden, D., Origins and concepts of digital literacy</i>

		Strategic use of academic databases and search tools	7. Search Strategy Use: Observe how the student uses search strategies (e.g., keywords, filters, Boolean operators) when accessing academic databases.	
		Ability to interpret and synthesise information from multiple digital sources	8. Information Synthesis: Observe whether the student compares, connects, or integrates information from multiple sources during reading or writing.	
		Understanding of copyright, plagiarism, and ethical use of digital content	9. Ethical Use Awareness: Observe whether the student demonstrates awareness of plagiarism and proper citation practices during writing.	
		Navigation of hypertext and complex digital information environments	10. Hypertext Navigation: Observe how the student navigates between digital sources (e.g., following links, moving between tabs, refining	

			searches).	
3	Social-Emotional Dimension	Responsible and ethical use of digital platforms in academic contexts	11. Ethical Behaviour: Observe whether the student shows responsible behaviour when using digital tools (e.g., acknowledging sources, not copying content directly).	<i>Ng, W., Can we teach digital natives digital literacy?</i>
		Professional digital communication with supervisors and peers	12. Professional Communication : Observe whether the student communicates politely and professionally in digital interactions with supervisors or peers.	
		Self-regulation in the use of AI writing and paraphrasing tools	13. AI Tool Use (if observable): Observe whether the student uses AI tools responsibly during writing or discussion activities.	

4	Sociocultural Dimension	Awareness of academic discourse norms and conventions in digital writing	14. Academic Register: Observe whether the student uses formal academic language appropriately in digital writing or communication.	<i>Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings</i>
		Critical understanding of power, ideology, and voice in digital texts	15. Awareness of Perspectives: Observe whether the student shows awareness of different viewpoints when discussing or writing about academic topics.	
		Participation in academic digital communities as a legitimate member	16. Participation in Academic Contexts: Observe whether the student engages appropriately in academic digital environments (e.g., discussions, feedback sessions).	

5	Developmental Dimension	Progressive growth in digital academic literacy across thesis-writing stages	17. Fluency Development: Observe whether the student becomes more fluent in using digital tools over time (across multiple sessions).	<i>Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings</i>
		Self-directed learning of new tools and digital strategies	18. Independence: Observe whether the student becomes more independent in using digital tools without assistance over time. 19. Strategic Use: Observe whether the student uses digital tools more strategically (e.g., choosing appropriate tools for specific tasks) over time.	<i>Martin, A., A European framework for digital literacy.</i>

Table 3.9 Blueprint Observation Checklist of Competency Levels of DL

No.	Levels	Indicators	Items	Theoretical Basis
1	Level 1: No Understanding	Unable to identify platforms relevant to thesis research Relies entirely on basic internet browsing with no structured academic tool use	20. Observe whether the student is unable to locate or recognise academic platforms (e.g., databases, Google Scholar) when asked to search for sources.	<i>Ng, W., Can we teach digital natives digital literacy?</i>
2	Level 2: Low Understanding	Basic awareness of academic tools but requires constant external assistance and struggles with simple digital academic tasks independently	21. Observe the frequency of interruptions, requests for help, or extended hesitation when the student encounters academic platforms.	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Martin, A., A European framework for digital literacy.</i>
3	Level 3: Average Understanding	Capable of routine and functional digital task completion independently	22. Routine Tasks: Observe whether the student can complete basic tasks (e.g., searching sources, importing references, checking similarity) independently.	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Gilster, P., Digital Literacy</i>

		Struggles with complex or unfamiliar features and advanced tool functions	23. Advanced Features: Observe whether the student hesitates or requires help when using advanced features (e.g., complex search filters, tool settings).	
4	Level 4: High Level	Demonstrates independence in solving technical issues	24. Independent Problem-Solving: Observe whether the student solves technical problems independently using available resources (e.g., help menus, tutorials, online searches).	Ng, W., <i>Can we teach digital natives digital literacy?</i> Martin, A., <i>A European framework for digital literacy.</i>
		Uses academic digital tools effectively and purposefully across thesis stages	25. Strategic Tool Use: Observe whether the student uses digital tools purposefully for different tasks (e.g., searching, writing, referencing).	

		Begins to strategically integrate multiple tools ,consistent with Martin's 'skills and knowledge' stage	26. Tool Integration: Observe whether the student combines multiple tools smoothly during a working session.	
5	Level 5: Advanced Mastery	Strategically integrates multiple digital tools in a seamless academic workflow	27. Observe whether the student moves fluidly and self-directedly between multiple academic platforms during a single working session with no external prompting.	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Bawden, D., Origins and concepts of digital literacy</i> <i>Martin, A., A European framework for digital literacy.</i>
		Performs intuitive and deep critical evaluation of digital sources	28. Observe whether the student evaluates and selects sources critically (e.g., comparing perspectives, identifying bias).	

Table 3.10 Blueprint Observation Checklist of Challenges of DL

No.	Challenges	Indicators	Items	Theoretical Basis
1	Technical Challenges	Access limitations, hardware/software inadequacy, and limited familiarity with advanced academic tool features	29. Observe whether technical disruptions (software crashes, login failures, slow loading) occur and how the student responds with independence or reliance on others.	<i>Ng, W., Can we teach digital natives digital literacy?</i>
2	Cognitive Challenges	Difficulty evaluating source credibility and managing information overload	30. Observe whether the student applies critical source evaluation criteria (author, journal, publication date, peer-review status) or relies on uncritical acceptance of top-listed results.	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Gilster, P., Digital Literacy</i> <i>Bawden, D., Origins and concepts of digital literacy</i>
3	Social-Emotional Challenges	Digital anxiety, avoidance of unfamiliar tools, and low digital self-efficacy in academic writing	31. Observe the student's body language, hesitation, or signs of disengagement when confronted with unfamiliar academic digital	<i>Ng, W., Can we teach digital natives digital literacy?</i> <i>Martin, A., A European framework for digital literacy.</i>

			platforms or tasks.	
4	Instructional & Support Gaps	Absence of formal training and dependence on informal, self-taught approaches to digital tool use	32. Observe whether the student's digital practices reflect formally taught habits or self-taught, exploratory approaches that may contain inefficiencies or gaps.	<i>Martin, A., A European framework for digital literacy.</i> <i>Kucer, S.B., Dimensions of Literacy: A Conceptual Base for Teaching Reading and Writing in School Settings</i>

E. Technique of Data Analysis

The analysis of data in this study follows Braun and Clarke's reflexive thematic analysis framework, a systematic six-phase approach designed to identify, analyze, and report patterns (themes) within qualitative data.⁶¹ This framework was selected for its flexibility and theoretical accessibility, making it particularly suitable for case study research that seeks to examine contextual factors and patterns across embedded units.⁶² The analytic process moves from deep familiarization with individual cases to the identification of overarching themes across the dataset, producing synthesized findings applicable to the bounded system.

Phase 1: Familiarization with the Data

The analysis commenced with intensive familiarization with the entire dataset. For each embedded unit (student), the author read and re-read the

⁶¹ Virginia Braun and Victoria Clarke, "Using Thematic Analysis in Psychology," *Qualitative Research in Psychology* 3, no. 2 (2006): 77-101

⁶² Braun and Clarke, "Using Thematic Analysis in Psychology"

three distinct data sources (interview transcripts, observation notes, and document artifacts) to develop a holistic understanding of each participant's digital literacy experience in thesis writing.⁶³ Initial impressions and emerging patterns were recorded in analytic memos, allowing the author to note recurring ideas, unique strategies, and potential points of interest across the dataset. This phase was essential for grounding the subsequent analysis in the data rather than in preconceived theoretical assumptions.⁶⁴

Phase 2: Generating Initial Codes

Following familiarization, the author systematically generated initial codes across the entire dataset. Coding was conducted manually, allowing for deep idiographic interpretation required by the case study approach.⁶⁵ The coding process was data-driven and inductive, identifying significant features of the data relevant to the research questions: types of digital literacy used, competency levels demonstrated, and challenges faced. Codes captured both manifest content (explicit statements about tool usage) and latent content (underlying assumptions, attitudes, and implied meanings). Examples of initial codes included "Mendeley non-use," "AI verification practices," "Turnitin anxiety," "supervisor guidance gap," and "self-taught digital learning." Codes were collated with relevant data extracts to ensure traceability and transparency.⁶⁶

Phase 3: Searching for Themes

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

The initial codes were then organized into potential themes. This phase involved sorting and collating codes into broader patterns that captured something significant about the data in relation to the research questions.⁶⁷ The author grouped related codes to form candidate themes, examining how codes coalesced around central organizing concepts. For instance, codes such as "Mendeley non-use," "Zotero abandonment," and "manual citation practices" were grouped under the candidate theme "technical literacy gaps." Similarly, codes including "AI hallucination awareness," "paraphrasing boundary uncertainty," and "information overload" were clustered under "cognitive challenges." This phase also involved reviewing the relationship between codes, themes, and different levels of themes (e.g., main themes and sub-themes). Visual mapping tools, such as thematic mind maps, were employed to explore connections and hierarchies among emerging themes.⁶⁸

Phase 4: Reviewing Themes

Candidate themes were reviewed and refined to ensure they were coherent, distinct, and adequately supported by the data. This phase occurred at two levels. First, the author reviewed themes against the coded data extracts to verify that each theme formed a coherent pattern with internal consistency. Second, themes were reviewed against the entire dataset to ensure they accurately captured the breadth and depth of participants' experiences.⁶⁹ During this phase, some candidate themes were merged (e.g., "AI dependency" and "uncritical AI consumption" were

⁶⁷ Ibid.

⁶⁸ Ibid.

⁶⁹ Ibid.

combined into a single theme), others were split (e.g., "technical challenges" was separated into "access barriers" and "tool proficiency gaps"), and some were discarded when insufficient data supported them. The reviewing process also involved checking that themes were not merely descriptive summaries but captured something meaningful about the data in relation to the research questions.⁷⁰

Phase 5: Defining and Naming Themes

Once the final thematic structure was established, the author defined and named each theme with precision. This phase involved articulating the essence of each theme, determining its scope and boundaries, and writing a detailed analysis of each theme that explained what it captured and how it related to the research questions.⁷¹ Themes were defined through the development of a thematic narrative that identified the "story" each theme told about the data. For example, the theme "Technical-Cognitive Gap" was defined as the observable disparity between participants' high-level cognitive abilities (critical thinking, synthesis, argumentation) and their low-level technical proficiency (citation management, bibliography formatting). This phase also involved identifying sub-themes and illustrating each theme with vivid, compelling data extracts that brought the analysis to life.⁷²

Phase 6: Producing the Report

The final phase involved writing the analytic narrative that presents the findings. This was not merely a descriptive summary but a rich, coherent,

⁷⁰ Ibid.

⁷¹ Ibid.

⁷² Ibid.

and nuanced account of the data that answers the research questions and engages with existing literature.⁷³ The report integrates data extracts with analytic commentary, demonstrating how each theme addresses the research questions while maintaining the complexity and richness of participants' experiences. The thematic structure is organized around the three research questions: (1) types of digital literacy used (themes: Technical Literacy, Cognitive Literacy, Social-Emotional Literacy, Sociocultural Literacy, Developmental Literacy); (2) competency levels demonstrated (themes organized by participant levels from Level 3 to Level 5); and (3) challenges faced (themes: Technical Challenges, Cognitive Challenges, Social-Emotional Challenges, Instructional Gaps). The report also highlights the interconnectedness of themes, such as the relationship between AI dependency and low self-efficacy, or the link between instructional gaps and the Technical-Cognitive Gap.⁷⁴

Cross-Unit Comparison and Synthesis

While Braun and Clarke's framework typically treats the dataset as a whole, this study's case study design required attention to both individual cases and cross-unit patterns. Following the thematic analysis of the entire dataset, the author systematically compared and contrasted findings across all five embedded units. This cross-unit comparison allowed the identification of patterns that might otherwise remain obscured, revealing overarching themes, variability in responses, and contextual nuances. Analytical techniques employed during cross-unit synthesis included: (a)

⁷³ Ibid.

⁷⁴ Ibid.

pattern matching, identifying recurring themes and consistent challenges across the majority of students (e.g., persistent non-use of reference managers, shared anxiety regarding Turnitin), which confirmed alignment with existing theoretical frameworks (Ng's dimensions); and (b) explanation building, developing coherent, evidence-based explanations for why specific digital literacy challenges manifest within the IAIN Curup TBI context (e.g., explaining why MAN successfully integrated AI and reference tools while RM relied solely on basic tools, by referencing differences in formal training exposure and self-directed learning initiative). This two-pronged approach (thematic analysis for pattern identification across the dataset, followed by cross-unit comparison for contextual nuance) establishes a robust chain of evidence, transforming descriptive findings into powerful, contextual conclusions about the digital literacy phenomenon within the TBI program.

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

This study presents several novel empirical findings regarding the multidimensional nature of academic digital literacy in EFL thesis writing contexts. The key findings are organized according to the three research questions that guide this study.

For Types of Digital Literacy Used, findings reveal that TBI students employ five dimensions: technical, cognitive, social-emotional, sociocultural, and developmental. The universal integration of Generative AI demands that institutions explicitly teach critical AI literacy to prevent dependency and ensure students verify AI-generated content. The pervasive non-use of reference management tools among four participants, despite awareness, indicates that mere exposure to these tools is insufficient, institutions must provide structured, mandatory training on Mendeley and Zotero to bridge this gap. Sociocultural engagement remains limited, with all participants relying on WhatsApp for supervisor communication while only one actively uses ResearchGate, this calls for institutional initiatives to introduce and integrate formal academic platforms into the curriculum. Developmental literacy manifests through progressive growth, with one participant demonstrating a three-stage trajectory from Google and Word through Mendeley to Turnitin, Grammarly, and Claude, suggesting that structured scaffolding across thesis stages can effectively guide students' digital literacy development.

For Competency Levels, findings ranged from Level 3 to Level 5, challenging the assumption that university students naturally possess high digital literacy. The technical-cognitive gap, where high cognitive ability in synthesis and argumentation did not translate to technical referencing proficiency, confirms that digital literacy consists of distinct sub-competencies that develop at different rates. This necessitates dimensional assessment rather than global evaluation, as students may excel cognitively but fail technically. The only participant who achieved Level 5 mastery was also the only one using Mendeley, Turnitin, and ResearchGate, and the only one who received formal training, suggesting that even partial institutional training provides a valuable foundation. This finding calls for the integration of digital literacy instruction into the curriculum, targeting specific technical skills explicitly rather than assuming cognitive understanding automatically translates into technical proficiency.

For Challenges Faced, students face multifaceted challenges spanning technical, cognitive, social-emotional, and instructional dimensions. These include paywalls, internet issues, hardware failure, AI hallucination, plagiarism anxiety, Turnitin fear, and absence of structured formal training. The inverse relationship between AI dependency and self-efficacy, where heavy AI dependence generates anxiety about academic integrity, creates a cycle of dependency and fear that institutions must break through targeted interventions. The phenomenon of "anticipatory anxiety," the fear of Turnitin AI detection despite not having used Turnitin, contrasts sharply with advanced participants who use Turnitin as a confidence-building tool, indicating that

routine exposure and training can transform anxiety into empowerment. The interconnected nature of these challenges suggests that addressing any single challenge in isolation is insufficient, institutions must adopt a comprehensive, systemic approach that simultaneously addresses technical access, cognitive strategies, affective support, and instructional scaffolding to effectively develop students' academic digital literacy.

1. Types of Digital Literacy Used

This section addresses the first research question: What types of digital literacy do students use in writing their thesis?

a) Findings From Interview

Based on the thematic analysis of interview data, five main types of digital literacy emerged from the participants' practices during thesis writing. These types correspond to the hybrid theoretical framework and reflect the multidimensional nature of digital literacy in academic contexts.

Table 4.1 Data Summary of DL Types

Type of Digital Literacy	Tools Used	Primary Purposes	Participants
Technical Literacy	1. Google Scholar 2. Publish or Perish 3. Elsevier 4. Taylor & Francis 5. SCImago 6. Semantic Scholar 7. Sci-Hub 8. Google Drive 9. Laptop Folders 10. Microsoft Word 11. Mendeley	Searching, accessing, and verifying sources; file management; backup; organising drafts	All participants used every tool except Mendeley, which was used only by MAN.
Cognitive Literacy	1. ChatGPT 2. DeepSeek 3. Claude AI 4. Gemini	Synthesising literature; generating ideas; paraphrasing;	All participants

		comparing perspectives	
Social-Emotional Literacy	1. ZeroGPT 2. Quillbot 3. Manual DOI verification 4. Turnitin	Maintaining academic integrity; avoiding plagiarism; verifying citation accuracy	Only MAN used Turnitin
Sociocultural Literacy	1. WhatsApp 2. Instagram 3. Telegram 4. ResearchGate	Communicating with supervisors and peers; sharing academic experiences; seeking help	All participants
Developmental Literacy	N/A (process-based)	Progressive growth; self-directed learning; reflective awareness	All participants

b) Findings From Observation

Key observational insights included:

- a. DFH demonstrated seamless workflow integration, moving fluidly between Publish or Perish, SCImago, Claude AI, and Microsoft Word without hesitation.
- b. FA showed systematic verification practices, cross-checking AI outputs against multiple databases.
- c. NAN exhibited efficient rotation between AI platforms to bypass free-tier limits but showed hesitation with formal academic tools.
- d. RM demonstrated the most limited operational fluency, frequently pausing to seek confirmation.

- e. MAN showed the most comprehensive tool integration, moving seamlessly between Google Scholar, Mendeley, Microsoft Word, ChatGPT, Grammarly, and Turnitin in a single session.

c) Findings From Document Analysis

Key Points from Document Analysis of Types of Digital Literacy:

- 1) Reference Manager Gap: Only DFH and RM demonstrated clear evidence of active reference manager use. FA , NAN , and MAN showed either no bibliography or manual, non-standard citations.
- 2) Citation Accuracy Divide: DFH and RM showed fully aligned citations. NAN used name-only citations without year. MAN had many citations without year. FA showed the most problematic pattern, writing full article titles into paragraphs.
- 3) Technical-Cognitive Gap: Several participants demonstrated high cognitive ability (synthesis, scholarly voice) but low technical skills (citation formatting, bibliography). This confirms the gap between *social digital skills* and *academic digital literacy*.

2. Competency Levels of the Participants

This section addresses the second research question: How do students demonstrate their digital literacy competency levels during their undergraduate thesis writing process?

A critical finding that emerged across all three data sources is the Technical-Cognitive Gap, defined as the observable disparity between participants' high-level cognitive abilities, including critical thinking, synthesis, argumentation, and scholarly voice, and their low-level technical proficiency in using digital

tools for citation management, bibliography formatting, and reference organization. This gap manifested consistently across the interview, observation, and document analysis data.

The interview data revealed that participants who articulated sophisticated cognitive strategies for synthesizing information and evaluating sources often admitted to never using reference management software such as Mendeley or Zotero.

The observation data confirmed this pattern, as participants who demonstrated high cognitive engagement during sessions exhibited visible hesitation or difficulty when performing technical referencing tasks.

The document analysis provided the most concrete evidence, as several participants with cognitively sophisticated thesis drafts, characterized by strong arguments, emergent findings, and clear scholarly voice, simultaneously demonstrated technical deficiencies such as missing bibliographies, inconsistent citation formats, and incorrect attribution practices.

This finding is significant because it challenges the assumption that digital literacy is a unified competency; rather, it consists of distinct sub-competencies that can develop independently and at different rates. The technical-cognitive gap underscores the multidimensional nature of digital literacy and highlights the need for instructional interventions that address technical skills explicitly, rather than assuming that cognitive understanding automatically translates into technical proficiency.

a) Findings From Interview

Based on the thematic analysis of interview data, the five participants demonstrated varying competency levels according to Wan Ng's five-level digital literacy scale. The analysis utilized four key indicators: Tool Awareness and Knowledge (TAK), Independence and Multi-Tool Proficiency (IMPT), Advanced Search and Source Evaluation (ASSE), and Reflective Development and Growth (REFL).

Table 4.2 Data Summary of Competency Levels

Subject	TAK	IMPT	ASSE	REFL	Overall Level
DFH	High	Full	Systematic	Most pronounced	Level 4-5 (High to Advanced)
FA	Broad (with gap)	Strong (with limitations)	Methodical	Gradual	Level 3-4 (Average to High)
NAN	AI-focused	Bifurcated	Limited	Awareness without ability	Level 2-3 (Low to Average)
RM	Limited	Most limited	Superficial	Slowest	Level 2-3 (Low to Average)
MAN	Comprehensive	Full (with Mendeley/Turnitin)	Structured	Three-stage clear	Level 4-5 (High to Advanced)

b) Findings From Observation

The observation data confirmed the competency levels identified in the interviews.

Key observational insights included:

- 1) DFH demonstrated all Level 4 and Level 5 indicators, placing him at Level 4-5 (High to Advanced). His workflow was seamless and integrated, with deep critical evaluation of sources.

- 2) FA demonstrated all Level 4 and Level 5 indicators, placing him at Level 4-5 (High to Advanced). His verification-first approach was consistently observed.
- 3) NAN demonstrated Level 3 indicators and some Level 4 indicators but failed to demonstrate Level 5 indicators (seamless multi-tool workflow and deep critical evaluation), placing her at Level 3-4 (Average to High).
- 4) RM demonstrated Level 3 indicators but failed to demonstrate Level 4 and Level 5 indicators, placing her at Level 3 (Average).
- 5) MAN demonstrated all Level 4 and Level 5 indicators, placing him at Level 5 (Advanced Mastery). He was the only participant observed using Mendeley, Turnitin, and participating in ResearchGate, making him the sole participant achieving full Level 5 mastery.

c) Findings From Document Analysis

Key Points from Document Analysis:

- 1) DFH & RM : Level 4-5 (Advanced). Balanced across all dimensions. References well-organized with complete bibliographic metadata. Strong scholarly voice and academic convention compliance.
- 2) NAN : Level 2 (Technical) / Level 4-5 (Cognitive). Significant imbalance. Bibliography well-organized (Level 4), but in-text citations manual without year (Level 2). Academic language strong but citation conventions failed.
- 3) MAN : Level 2 (Technical) / Level 5 (Cognitive). Most pronounced imbalance. Cognitively at Level 5 with strong synthesis, explicit

scholarly voice, and emergent findings. Technically at Level 2 due to no bibliography and many citations without year.

- 4) FA : Level 2 (Technical) / Level 4 (Cognitive). Largest and most problematic imbalance. Cognitively at Level 4 with strong synthesis in Background. Technically at Level 2 due to informal citations, massive typos, no bibliography, and content anomaly in Chapter 3.
- 5) The Technical-Cognitive Gap is the most significant finding, high cognitive ability does not automatically translate to technical referencing proficiency.

3. Challenges Faced by Students

This section addresses the third research question: What challenges do students face in implementing digital literacy during their thesis writing process?

A notable finding that emerged across all three data sources is the challenge of AI hallucination, a phenomenon where generative AI tools produce fabricated references, inaccurate citations, or entirely fictitious information that appears authentic. This challenge represents a new cognitive burden unique to the AI era, requiring students to invest additional time and effort in verifying AI-generated outputs. The findings revealed a clear disparity in how participants responded to this challenge. Higher-level participants, such as DFH, FA, and MAN, demonstrated critical awareness of AI limitations and consistently employed verification-first approaches, cross-checking AI-generated references against trusted academic databases. In contrast, lower-level participants, such as NAN and RM, exhibited passive acceptance of AI

outputs without systematic verification, making them more vulnerable to incorporating hallucinated content into their academic work. This disparity reflects the broader distinction between critical AI literacy (verification-first approach) and AI dependency (acceptance without verification).

The challenge of AI hallucination is particularly pronounced for EFL students, who may struggle to distinguish between authentic and fabricated academic references in a second language. As documented by Meli Fauziah et al., this phenomenon has been empirically observed among EFL students in the TBI program at IAIN Curup, where students encountered AI-generated references that appeared authentic but did not exist in academic databases, underscoring the urgent need for explicit instruction in critical AI literacy.⁷⁵

a) Findings From Interview

Based on the thematic analysis of interview data, four categories of challenges emerged: Technical Challenges, Cognitive Challenges, Social-Emotional Challenges, and Instructional Gaps. These categories align with the theoretical framework developed in Chapter II.

Table 4.3 Data Summary of Challenges

Challenge Category	Specific Challenges	Participants Affected
Technical Challenges	1. Limited/unstable internet 2. Paywalled articles 3. Free-tier AI limits 4. Laptop/hardware failure 5. Inability to operate reference managers 6. VPN/browser issues 7. No institutional Turnitin access	All participants (DFH-MAN)
Cognitive Challenges	1. Information overload 2. AI hallucination 3. Ambiguity in paraphrasing boundaries	All participants (DFH-

⁷⁵ Fauziah et al., "EFL Lecturers' and Students' Academic Writing Experience."

	4. Difficulty synthesizing multiple perspectives 5. Inability to distinguish peer-reviewed sources 6. Over-reliance on AI 7. Unsystematic source evaluation	MAN, varying intensity)
Social-Emotional Challenges	1. Anxiety about accidental plagiarism 2. Fear of Turnitin AI detection 3. Digital fatigue 4. Low digital self-efficacy 5. Frustration with AI outputs 6. Cognitive dissonance between AI dependency and integrity concerns 7. AI bias	All participants (DFH-MAN, varying intensity)
Instructional Gaps	1. No structured formal training 2. Supervisor focus on content over digital tools 3. No institutional database subscription 4. Digital library resources not effectively communicated 5. Self-learning (youtube/tiktok) dependence 6. Peer learning more influential than formal guidance 7. No curriculum-integrated digital literacy	All participants (DFH-MAN)

b) Findings from Observation

The observation data confirmed that all participants faced technical challenges and instructional gaps. FA, NAN, and RM demonstrated visible signs of digital anxiety and low self-efficacy, while DFH appeared more confident and MAN exhibited the highest confidence level.

Key observational insights regarding challenges:

- 1) Technical challenges were visible across all participants, manifesting as slow loading times, paywall notifications, and troubleshooting pauses. MAN's Mendeley-Word synchronization issue was observed, and he resolved it by consulting a YouTube tutorial.

- 2) Cognitive challenges were most visible in NAN and RM, who spent extended time browsing through search results without clear selection criteria. MAN showed more structured selection behavior, using Boolean operators and systematic abstract reading.
 - 3) Social-Emotional challenges were most apparent in RM, who exhibited visible hesitation, frequent pauses, and expressions of uncertainty. MAN exhibited the least anxiety, particularly when using Turnitin, which he approached as a routine quality check rather than a source of fear.
 - 4) Instructional gaps were evidenced by the absence of formal tool training references in participants' practices. MAN's use of Mendeley and Turnitin, partially attributed to formal training, was the exception.
- c) Findings from Document Analysis

Key points from Document Analysis:

- 1) Technical Challenges (FA , NAN , MAN): FA and MAN had no bibliographies at all. NAN showed manual in-text citations without year despite having a well-formatted bibliography. This confirms technical challenges in using reference management tools.
- 2) Cognitive Challenges (FA): showed a fatal content anomaly, Chapter 3 discusses "*presupposition*" (Pragmatics) though the thesis is about Tip-of-the-Tongue (Psycholinguistics). This indicates uncritical copy-paste without proper editing, physical evidence of AI integration challenges.

- 3) Absence of Affective/Support Data: No participant attached Turnitin reports, Mendeley logs, or formal training documentation, confirming the instructional gaps identified in the literature. This is a systemic rather than individual issue.
- 4) Self-Taught Learning Confirmed: The absence of formal training evidence supports the finding that students learn digital tools informally through platforms like YouTube and TikTok, producing highly variable results.

B. Discussion

1. Types of Digital Literacy

The findings reveal that students in the TBI program employ a range of digital literacy types during thesis writing, spanning technical, cognitive, social-emotional, sociocultural, and developmental dimensions. This multidimensional engagement aligns with the hybrid theoretical framework underpinning this study, confirming that digital literacy in academic contexts extends beyond mere technical operation to encompass critical, ethical, social, and developmental competencies.

a) Technical Literacy

In terms of technical literacy, the findings indicate that participants possess functional competence in operating academic search engines and databases. This is consistent with Ng's characterization of the technical dimension as encompassing the operational skills required to use digital devices, software, and platforms.⁷⁶ All five participants demonstrated

⁷⁶ Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078.

ability to navigate Google Scholar, with some extending to more specialized platforms such as Publish or Perish, SCImago, Semantic Scholar, and ResearchGate. This is evident from DFH's statement in the interview section. As he mentioned, *"I use SCImago to check whether the journal is credible, whether it is Q1, Q2, or Q3."*⁷⁷ This statement demonstrates that DFH possesses sophisticated technical literacy that extends beyond basic searching to incorporate quality assessment through journal ranking verification.

Similarly, FA's verification practice of checking sources across multiple platforms reflects technical competence combined with methodological rigor. As he stated, *"I always verify on several platforms before using a source."*⁷⁸ This reveals that FA employs a systematic verification workflow that ensures the credibility of sources before incorporation into his thesis.

MAN also demonstrated advanced technical literacy through his use of snowballing strategy and Boolean operators. He explained, *"After finding one relevant article, I try to read its bibliography to find other related sources. I also use connecting words like AND, OR to narrow or expand search results."*⁷⁹ This indicates that MAN employs sophisticated search strategies that extend beyond basic keyword searching. The observation data further confirms this pattern, as DFH was observed navigating seamlessly between Publish or Perish, SCImago, and Claude AI without hesitation, while MAN demonstrated comprehensive tool

⁷⁷ DFH, interview by author, IAIN Curup, 2026..

⁷⁸ FA, interview by author, IAIN Curup, 2026.

⁷⁹ MAN, interview by author, IAIN Curup, 2026.

integration moving fluidly between Google Scholar, Mendeley, Microsoft Word, ChatGPT, Grammarly, and Turnitin in a single session.

However, the universal non-use of reference management tools among DFH-RM, contrasted with MAN's active use of Mendeley, represents a notable gap. This finding aligns with Ammade et al., who observed that students often struggle to integrate digital tools due to a lack of training.⁸⁰

The absence of formal instruction in reference management tools appears to have resulted in students either abandoning these tools or never attempting to use them. This is reflected in RM's comment during the interview: *"No. I don't use it? Because... I'm confused about how to use it. So I don't use it, I do it manually."*⁸¹ This statement reveals that the barrier to adopting reference management tools is not merely technical but also stems from inadequate institutional support and guidance.

FA similarly expressed lack of confidence: *"I know Mendeley can generate citations automatically, but I always do it manually because I am not confident if I use that software because I might make mistakes."*⁸² This indicates that even when students are aware of reference management tools, low digital self-efficacy prevents their adoption. NAN had downloaded Zotero but abandoned it due to difficulty: *"I downloaded Zotero because a friend said it was useful, but I could not use it, so I stopped."*⁸³

⁸⁰ Ammade, Larekeng, and Hafid, "Training on Technology Implementation," 147-157.

⁸¹ RM, interview by author, IAIN Curup, 2026.

⁸² FA, interview by author, IAIN Curup, 2026.

⁸³ NAN, interview by author, IAIN Curup, 2026.

The document analysis corroborates this finding, as RM's thesis draft showed fully aligned APA formatting with hanging indent and complete DOI metadata, indicating she manually formatted her references despite not using reference management software, while NAN's thesis draft revealed name-only citations without year despite having a well-formatted bibliography, suggesting inconsistent technical practices. MAN's successful adoption of Mendeley through self-directed learning demonstrates that these tools are accessible when students have sufficient motivation and access to learning resources, but this remains the exception rather than the norm.

Regarding file management practices, the variation between participants' organizational sophistication suggests that technical literacy is not uniformly developed even among students in the same program. DFH demonstrated systematic folder structures with multi-device backup: *"I create neat folder structures on my laptop and also back them up on Google Drive."*⁸⁴ This indicates that DFH employs a structured approach to file management that ensures data security and accessibility. MAN exhibited the most comprehensive system, integrating three layers of backup: *"I store files on my laptop with folders organized by category... I also store them on Google Drive and on my phone as backup. I routinely update files in all storage locations."*⁸⁵ This demonstrates that MAN has developed a sophisticated organizational literacy that minimizes the risk of data loss.

⁸⁴ DFH, interview by author, IAIN Curup, 2026.

⁸⁵ MAN, interview by author, IAIN Curup, 2026.

In contrast, NAN relied on WhatsApp as an informal cloud backup, which proved insufficient when her laptop failed: *"Send it to myself via WhatsApp... it was still there. But all the files inside were lost."*⁸⁶ This echoes Dewi et al.'s finding that disparities in digital exposure result in unequal readiness to engage in academic digital tasks.⁸⁷ The document analysis further revealed that NAN's thesis draft contained manual in-text citations without year despite having a well-formatted bibliography, indicating that her file management practices were inconsistent and that she did not utilize reference management software during the writing process. Consequently, the technical dimension of digital literacy requires structured institutional scaffolding to ensure equitable development across all students.

b) Cognitive Literacy

Concerning cognitive literacy, the extensive integration of Generative AI tools across all participants represents a significant finding. All five participants reported using multiple AI platforms including ChatGPT, DeepSeek, Claude, and Gemini for various cognitive tasks. This reflects what could be termed the "AI revolution" in academic writing, where students increasingly rely on AI for higher-order cognitive tasks such as synthesis, comparison, and idea generation. This aligns with Ng's cognitive dimension, which addresses the intellectual strategies involved in locating, evaluating, and synthesizing information.⁸⁸

⁸⁶ NAN, interview by author, IAIN Curup, 2026.

⁸⁷ Dewi et.al, "Implications and Impact of Digital Literacy," 123-134

⁸⁸ Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078.

DFH demonstrated sophisticated integration, using AI not merely as a search tool but as a synthesizing partner: *"I download all the journals or articles. Then, I put them into generative AI, especially Claude and DeepSeek, and I synthesize them there."*⁸⁹ This reveals that DFH employs AI as a cognitive partner that assists in the complex task of synthesizing multiple sources into coherent arguments.

Similarly, FA used AI for brainstorming and paraphrasing while maintaining verification: *"After I get the writing result from AI, I change some wording... into words that are less common or more appropriate for academic language."*⁹⁰ This indicates that FA actively edits AI outputs to ensure academic appropriateness, reflecting critical engagement with AI-generated content. The observation data confirms that all five participants demonstrated the ability to synthesize information from multiple digital sources, indicating that AI integration has become a normalized component of academic writing practices.

However, the nature of AI engagement varied considerably. DFH and MAN demonstrated what might be called "critical AI literacy," using AI as a tool for brainstorming and initial synthesis while maintaining active verification and critical evaluation. This is confirmed by MAN's response in the interview: *"I still recheck that information and compare it with trusted academic sources."*⁹¹ This statement reveals that MAN employs a verification-first approach that reflects sophisticated cognitive engagement with AI tools, where AI serves as a thinking partner rather than an answer

⁸⁹ DFH, interview by author, IAIN Curup, 2026.

⁹⁰ FA, interview by author, IAIN Curup, 2026.

⁹¹ MAN, interview by author, IAIN Curup, 2026.

engine. MAN further elaborated, *"I use it to help understand theory, explain difficult concepts or give examples of sentence improvement in English. However, I do not directly copy the results given by ChatGPT."*⁹²

This indicates that MAN maintains critical distance from AI outputs, using them as a starting point rather than a final product.

In contrast, NAN and RM showed more passive AI consumption. This is illustrated by RM's explanation during the interview: *"Usually through ChatGPT. I upload it and ask what the discussion in the journal means."*⁹³

This statement reveals that RM uses AI as an "answer engine" that performs the cognitive work of interpretation rather than as a tool for critical thinking. NAN similarly used AI primarily for summarization: *"I use ChatGPT like this. I ask, what is this about? What are the important parts? But sometimes after getting it from ChatGPT, I read it again."*⁹⁴

This indicates that NAN engages with AI outputs passively, with limited critical evaluation. The document analysis supports this finding, as RM's thesis draft showed superficial source evaluation, relying on cues such as the presence of "University" or "International Journal" in titles rather than systematic verification, while DFH's and MAN's drafts demonstrated sophisticated source integration with multi-criteria evaluation frameworks.

The contrast between "critical AI literacy" (verification-first) and "AI dependency" (acceptance without verification) represents a crucial distinction. This distinction supports Al-Zubaidi's concern that uncritical AI use may erode critical thinking skills, while demonstrating that higher

⁹² Ibid.

⁹³ RM, interview by author, IAIN Curup, 2026.

⁹⁴ NAN, interview by author, IAIN Curup, 2026.

digital literacy includes more sophisticated AI integration with active verification.⁹⁵ The finding suggests that AI literacy represents a distinct sub-competency within cognitive digital literacy that warrants explicit instructional attention, particularly given the increasing integration of Generative AI into academic writing practices. The observation that MAN, the only participant using reference managers and Turnitin, also demonstrated the most critical approach to AI use, suggests that technical proficiency and cognitive sophistication may be interrelated. FA's critical awareness of AI hallucination further supports this: *"Not all references given by AI are real references. I once got a reference that looked real but turned out not to exist in the database."*⁹⁶ This indicates that FA has developed a sophisticated understanding of AI limitations that informs his verification practices.

c) Social-Emotional Literacy

In terms of social-emotional literacy, the findings reveal a paradox: all participants demonstrated awareness of academic integrity issues, but this awareness did not consistently translate into ethical practices. The universal non-use of Turnitin among DFH, FA, NAN, and RM, despite awareness of its existence, suggests that ethical digital literacy involves not just knowledge but also access, confidence, and institutional support. This is evident from RM's statement in the interview: *"Anxious, yes. Because it is used continuously, right. Yes, I'm worried because we are*

⁹⁵ Al-Zubaidi, "Challenges of Artificial Intelligence".

⁹⁶ FA, interview by author, IAIN Curup, 2026.

*dependent, right. So I'm anxious if Turnitin still detects AI."*⁹⁷ This statement reveals that RM perceives Turnitin as an adversarial tool rather than a supportive one, a perception that likely contributes to avoidance behavior.

RM further elaborated, *"Turnitin is different, you know,"* indicating that she views the tool as a threat rather than a resource for improving academic integrity.⁹⁸ DFH also expressed occasional uncertainty: *"Sometimes I still feel a little worried or unsure about the boundaries of unintentional plagiarism."*⁹⁹ This reveals that even advanced users experience anxiety about ethical boundaries in academic writing. NAN similarly expressed plagiarism anxiety: *"There are some things I'm not sure about, because I rarely use plagiarism checking."*¹⁰⁰ This indicates that the absence of routine integrity checking leaves students uncertain about their ethical practices. The document analysis confirms this pattern, as no participant DFH, FA, NAN, or RM attached any Turnitin similarity reports to their thesis drafts, whereas MAN routinely checked his similarity after completing each chapter.

MAN's active use of Turnitin as a confidence-building tool represents a fundamentally different affective orientation. He explained: *"I use Turnitin to check the similarity level of my writing... When the similarity result is still high, I will recheck which parts are problematic and*

⁹⁷ RM, interview by author, IAIN Curup, 2026.

⁹⁸ Ibid.

⁹⁹ DFH, interview by author, IAIN Curup, 2026.

¹⁰⁰ NAN, interview by author, IAIN Curup, 2026.

paraphrase them using my own words and with the help of Turnitin."¹⁰¹

This statement reveals that MAN uses Turnitin as a positive affirmation tool that helps him identify areas for improvement rather than as a source of anxiety. He further elaborated, *"I check the script after completing one section, for example Chapter 2 or Chapter 3 or Chapter 4."*¹⁰² This indicates that MAN has integrated Turnitin into his routine workflow, transforming a potential source of anxiety into a confidence-building mechanism.

This finding aligns with Getenet et al., who found that students' attitudes and digital literacy levels directly predict their digital self-efficacy.¹⁰³ MAN's confidence with Turnitin reflects higher self-efficacy, while RM's anticipatory anxiety illustrates the psychological burden that ethical uncertainty can impose. The reliance on Quillbot and AI for paraphrasing, combined with anxiety about plagiarism, reflects what Ng identifies as the social-emotional dimension's concern with self-regulation.¹⁰⁴

The absence of formal instruction in paraphrasing boundaries appears to have left students in a state of uncertainty, navigating ethical boundaries through trial and error. The contrast between MAN's routine Turnitin use and DFH, FA, NAN, and RM's avoidance suggests that the absence of institutional access and training creates an ethical vacuum where students develop their own, often inadequate, strategies for maintaining academic

¹⁰¹ MAN, interview by author, IAIN Curup, 2026.

¹⁰² Ibid.

¹⁰³ Getenet et al., "Students' Digital Technology Attitude," 2024.

¹⁰⁴ Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078.

integrity. This gap between ethical awareness and ethical practice represents a significant challenge for academic integrity in the AI era, underscoring the need for structured guidance on ethical digital practices.

d) Sociocultural Literacy

Regarding sociocultural literacy, the findings indicate that participants' engagement with academic digital communities is limited, with only MAN demonstrating active participation in platforms like ResearchGate. The predominance of WhatsApp for supervisor and peer communication, used by all participants, combined with the absence of engagement with formal academic platforms among DFH, FA, NAN, and RM, suggests that students' digital sociocultural practices remain largely confined to informal, peer-based networks rather than formal academic communities. This is consistent with Kucer's sociocultural dimension, which frames literacy as a social act embedded in the identities, values, and norms of specific communities of practice.¹⁰⁵

MAN's engagement with ResearchGate represents the kind of legitimate peripheral participation in academic communities that distinguishes advanced sociocultural literacy. This is reflected in MAN's account during the interview:

"I have interacted with authors or researchers through academic digital platforms, especially when I needed articles that could not be fully accessed. I have requested article access through ResearchGate

¹⁰⁵ Kucer, "Dimensions of Literacy".

and received quite good responses. That experience made me realize that the academic community is quite open to sharing knowledge."¹⁰⁶

This statement reveals that MAN actively participates in the broader academic community, positioning himself as a legitimate member of scholarly discourse.

He further explained, *"I feel platforms like ResearchGate and Academia.edu make me closer to the academic community. Through these platforms, I can see research conducted by researchers from various countries and follow the latest developments in my field."*¹⁰⁷ This indicates that MAN views these platforms as genuine communities of practice rather than mere repositories of articles. In contrast, FA explicitly stated: *"For interactions, I have never interacted with anyone."*¹⁰⁸ Similarly, DFH reported no online interactions: *"I have never interacted with other people on those digital platforms. If there is a problem, I will directly meet my supervisor."*¹⁰⁹ This reveals that DFH prefers face-to-face consultation, which, while effective for some purposes, limits his exposure to the broader academic community.

NAN was the most socially active among DFH, FA, NAN, and RM, using WhatsApp, Instagram, and Telegram for peer academic support: *"Often via WhatsApp or Instagram, Telegram is also frequent."*¹¹⁰ She also learned digital skills through social media platforms: *"Sometimes I ask for tutorials from TikTok. Usually there are TikTok or YouTube tutorials. How*

¹⁰⁶ MAN, interview by author, IAIN Curup, 2026.

¹⁰⁷ Ibid.

¹⁰⁸ FA, interview by author, IAIN Curup, 2026.

¹⁰⁹ DFH, interview by author, IAIN Curup, 2026.

¹¹⁰ NAN, interview by author, IAIN Curup, 2026.

to make ChatGPT give good and accurate answers."¹¹¹ This indicates that NAN actively engages in informal learning communities but does not extend this engagement to formal academic platforms.

RM similarly used WhatsApp for supervisor communication and Instagram for informal academic sharing with peers, but when asked about participation in formal academic communities, she responded: *"No."*¹¹² She noted that ResearchGate was used only for finding journals, not for engagement. The observation data further revealed that NAN exhibited the most active peer-to-peer digital communication, yet her academic discourse norms remained underdeveloped, as she admitted not checking Scopus or SCImago for source verification. Therefore, institutions should actively encourage and facilitate engagement with formal academic digital communities to develop students' sociocultural literacy.

e) Developmental Literacy

As far as the data analysis is concerned, developmental literacy manifested through participants' progressive growth in digital tool proficiency. MAN's clearly documented three-stage trajectory, from Google and Word through Mendeley to Turnitin, Grammarly and Claude, represents the most structured developmental pattern observed. This is demonstrated in MAN's description during the interview:

"At the beginning, I only knew how to search for articles through Google Scholar and use Microsoft Word... over time, I started

¹¹¹ Ibid.

¹¹² RM, interview by author, IAIN Curup, 2026.

*learning to use Mendeley, Turnitin, AI, Google Drive, as well as tools like ChatGPT, paraphrasing tools, Quillbot, and others."*¹¹³

This explicit articulation of stage-specific tool use reflects what Martin identifies as the awareness-knowledge-skills-attitudes progression in digital literacy development.¹¹⁴ MAN further elaborated on his three-stage trajectory:

*"At the initial stage, I used digital tools more for finding references and understanding the theory... When entering the middle stage, I focused more on using digital tools for reference management using Mendeley... Meanwhile, at this final stage, I use Turnitin more often to check similarity, Grammarly also to improve grammar, and various storage platforms like Cloud to ensure all data and documents are stored safely."*¹¹⁵

This statement reveals that MAN has developed metacognitive awareness of his own developmental progression, explicitly articulating how his tool use has evolved across thesis stages.

DFH similarly demonstrated significant transformation:

*"From the beginning, there has been a change. Now, I understand better how to use digital platforms well. How to find good references, how to use search filters. There is certainly improvement. I can also be more selective in choosing the right and credible digital platforms for my thesis."*¹¹⁶

¹¹³ MAN, interview by author, IAIN Curup, 2026.

¹¹⁴ Martin, "European Framework for Digital Literacy," 151-176.

¹¹⁵ MAN, interview by author, IAIN Curup, 2026.

¹¹⁶ DFH, interview by author, IAIN Curup, 2026.

This indicates that DFH has developed sophisticated reflective awareness of his growth. He further explained, *"At the beginning, I was not used to it and used unstructured digital platforms. But over time, I got more used to it. Now I feel using digital platforms makes my work better, I am more selective, and can use them effectively."*¹¹⁷ This reveals that DFH's developmental trajectory moved from unstructured experimentation to systematic, selective use of digital tools. FA also showed gradual, consistent growth: *"The change in using digital tools itself, I feel there have been some developments. For example, in using AI. At the beginning I only used basic prompts. But after I explored further and read more, it turns out that for AI use we cannot use very basic prompts or commands."*¹¹⁸ This indicates that FA has developed increasingly sophisticated prompting strategies through reflective practice.

The finding that all participants demonstrated some growth, despite the absence of formal training, suggests that students possess intrinsic motivation to develop their digital literacy. DFH's statement, *"Without digital platforms, my thesis would not run smoothly or become better. This encourages me to learn,"*¹¹⁹ and MAN's similar motivation, *"Because I saw that these tools could help speed up the thesis writing process, I tried to learn them,"*¹²⁰ indicate that perceived utility drives self-directed learning.

¹¹⁷ DFH, interview by author, IAIN Curup, 2026.

¹¹⁸ FA, interview by author, IAIN Curup, 2026.

¹¹⁹ DFH, interview by author, IAIN Curup, 2026.

¹²⁰ MAN, interview by author, IAIN Curup, 2026.

However, the variation in growth trajectories indicates that this motivation is not equally channeled without institutional scaffolding. MAN's success in achieving comprehensive tool integration through self-directed learning combined with partial formal training demonstrates what is possible, while RM's limited progress illustrates what happens when students lack both institutional support and strong self-directed learning skills. RM's learning description reflects her slow growth: *"At first I did not know. I only learned from friends, from asking questions. The more we use it, the more familiar we become."*¹²¹ The observation data confirmed that MAN moved fluidly and self-directedly between multiple academic platforms in a single working session without external prompting, placing him at Level 5 in operational independence. In contrast, RM frequently paused to ask for confirmation and expressed hesitation, reflecting her limited developmental growth. RM's confidence level of "50-50" further reflects the low digital self-efficacy that characterizes her lower competency level.¹²²

The self-directed nature of this development through YouTube tutorials, TikTok, and trial-and-error aligns with Martin's view of digital literacy as a lifelong learning process. However, this also highlights the instructional gap identified by Yunita and Susilawati: when lecturers explicitly demonstrate digital platform use, students are more likely to adopt these practices effectively and ethically.¹²³ The absence of such demonstration in the TBI program appears to have resulted in students

¹²¹ RM, interview by author, IAIN Curup, 2026.

¹²² RM, interview by author, IAIN Curup, 2026.

¹²³ Yunita and Susilawati, "What Does Digitalization Offer," 55-70.

developing their digital literacy through informal, often fragmented, routes, suggesting that structured institutional support is essential for equitable developmental growth.

The findings for RQ1 reveal that TBI students employ a multidimensional range of digital literacy types during thesis writing, yet significant gaps exist in specific areas. The universal integration of AI tools across all participants represents a significant shift in academic writing practices, but the nature of AI engagement varies considerably from "critical AI literacy" to "AI dependency."

The universal non-use of reference management tools among DFH-RM, contrasted with MAN's active use, indicates a significant technical gap attributable to the absence of structured institutional support. Similarly, the universal non-use of Turnitin among DFH-RM, despite awareness of its existence, suggests that ethical digital literacy involves not just knowledge but also access, confidence, and institutional scaffolding. The limited engagement with formal academic communities indicates underdeveloped sociocultural literacy, while the varying developmental trajectories reflect the importance of both individual initiative and institutional support. MAN's hybrid approach, combining partial formal training with self-directed learning, proved most effective, suggesting that institutional training, even when partial, provides a valuable foundation. These findings underscore the need for structured institutional support to develop comprehensive digital literacy across all

dimensions, particularly in technical, ethical, and sociocultural areas where gaps were most pronounced.

2. Competency Levels

The findings of this study reveal that the five participants demonstrated varying competency levels according to Wan Ng's five-level digital literacy scale. DFH operated at Level 4-5 (High to Advanced), FA at Level 4-5 (High to Advanced), NAN at Level 3-4 (Average to High), RM at Level 3 (Average), and MAN at Level 5 (Advanced Mastery). This distribution, with MAN achieving the highest level and RM the lowest, challenges the assumption that university students, as "digital natives," naturally possess high digital literacy competencies. The variation among participants within the same program indicates that academic digital literacy is not automatically acquired through general exposure to technology. Instead, it appears to require specific training, practice, and reflective engagement. This aligns with Park et al., who noted that general digital fluency does not automatically translate to academic digital competence.¹²⁴

a) DFH : Level 4-5 (High to Advanced)

The data analysis reveals that DFH demonstrated comprehensive tool awareness with sophisticated, conscious decision-making about tool selection. He was familiar with Zotero, Mendeley, ChatGPT, citation generators, and voice recognition tools before starting his thesis. Importantly, his awareness was not passive; he made conscious decisions about tool selection. He chose not to use Mendeley despite knowing its

¹²⁴ Park, Kim, and Park, "Scientometric Study of Digital Literacy," 116-138.

functions, finding it "distracting" and "time-consuming." This conscious rejection of a widely-recommended tool indicates sophisticated tool awareness beyond mere familiarity. This is evident from DFH's statement during the interview. As he mentioned, *"I have heard of several digital tools specifically used to help research. I also know about Zotero and Mendeley, as well as AI tools like ChatGPT."*¹²⁵ This statement reveals that DFH possesses broad awareness of academic digital tools, but his deliberate choice to avoid certain tools demonstrates a higher level of competency where students evaluate tools critically rather than adopting them uncritically.

In terms of operational independence, DFH exhibited complete operational independence across all digital tools. He was self-taught through YouTube tutorials and academic forums, requiring no assistance from supervisors or peers. His workflow integrated multiple tools seamlessly. This is reflected in DFH's explanation during the interview:

*"I combine the use of Publish or Perish to find journals with the most citations. Then I look for the PDF version from Elsevier, Taylor & Francis, or Sinta journals. After that, I use Generative AI to analyze and compare important points, then I write them in my Word draft manually."*¹²⁶

This statement demonstrates that DFH has developed a systematic, multi-tool workflow that integrates various platforms seamlessly. During observation sessions, he navigated between these platforms fluidly without

¹²⁵ DFH, interview by author, IAIN Curup, 2026.

¹²⁶ Ibid.

hesitation. When SCImago loaded slowly, he immediately switched to Scopus without interrupting his workflow. This level of seamless multi-tool integration characterizes Ng's Level 4-5 competency, where students demonstrate independence in solving technical issues and using tools effectively for research goals.¹²⁷

Concerning source evaluation sophistication, DFH employed the most sophisticated strategy among all participants. He used a multi-criteria verification framework. This is captured in DFH's description during the interview:

*"I look at the number of citations in Google Scholar, then check the journal's reputation whether it is Q1, Q2, Sinta, or Scopus. For example, if an article from Elsevier is written by a researcher with a clear affiliation and has more than 100 citations, I consider it very credible."*¹²⁸

This statement reveals that DFH employs a comprehensive evaluation framework incorporating citation counts, author affiliation, journal indexing, and Q-ranking. This represents the kind of sophisticated critical evaluation that Bawden identifies as characteristic of advanced digital literacy.¹²⁹ The observation data confirmed that DFH consistently applied systematic evaluation criteria, unlike lower-level participants who relied on superficial cues.

Regarding reflective development, DFH showed the most pronounced growth among all participants. He described his transformation and

¹²⁷ Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078.

¹²⁸ DFH, interview by author, IAIN Curup, 2026.

¹²⁹ Bawden, "Origins and Concepts of Digital Literacy," 17-32.

consciously identified gaps in his competence, proactively addressing them through self-directed learning. As he stated, *"From the beginning, there has been a change. Now, I understand better how to use digital platforms well. How to find good references, how to use search filters. There is certainly improvement. I can also be more selective in choosing the right and credible digital platforms for my thesis."*¹³⁰ This statement reveals that DFH possesses strong metacognitive awareness of his own developmental trajectory.

He also demonstrated self-directed learning initiative: *"Yes, I have learned digital platforms independently. Without digital platforms, my thesis would not run smoothly or become better. This encourages me to learn."*¹³¹ His reflective awareness of areas for continued development further confirms his advanced competency level. In terms of AI integration, DFH demonstrated sophisticated integration, using AI not merely as a search tool but as a synthesizing partner. This aligns with Al-Zubaidi's concern about uncritical AI use, while demonstrating that higher digital literacy includes more sophisticated AI integration with active verification.¹³²

b) FA : Level 4-5 (High to Advanced)

The data analysis demonstrates that FA exhibited broad tool awareness with a significant gap in reference management implementation. He knew Google Scholar, ChatGPT, Mendeley, Zotero, and Semantic Scholar. However, while he knew about Mendeley and

¹³⁰ DFH, interview by author, IAIN Curup, 2026.

¹³¹ Ibid.

¹³² Al-Zubaidi, "Challenges of Artificial Intelligence".

Zotero, he had never actually used them in practice. This is reflected in FA's statement during the interview: *"I know Mendeley can generate citations automatically, but I always do it manually because I am not confident if I use that software because I might make mistakes."*¹³³ This statement reveals that his awareness, while broad, did not translate into operational competence for reference management tools, reflecting the technical-cognitive gap observed across participants.

Concerning operational independence, FA demonstrated strong independence in search tools and AI platforms with a systematic verification workflow. This is evident from FA's explanation during the interview:

*"For combining tools, I certainly use them. First, for articles. I usually ask AI for articles first. After getting the article data, I check whether the article really exists or not on Google Scholar, Semantic Scholar, or Taylor & Francis."*¹³⁴

This statement demonstrates that FA employs a verification-first approach where AI serves as a starting point, but he always confirms the existence of references through multiple academic databases. However, his independence was limited in reference management, where he needed assistance, and tool integration, where he used tools sequentially rather than synergistically. This partial independence indicates that while FA achieved Level 4 in most dimensions, the technical gap in reference management prevented full Level 5 mastery.

¹³³ FA, interview by author, IAIN Curup, 2026.

¹³⁴ Ibid.

In terms of source evaluation, FA's approach was methodical and multi-platform. Significantly, he demonstrated critical awareness of AI hallucination. As he stated, *"Not all references given by AI are real references. I once got a reference that looked real but turned out not to exist in the database."*¹³⁵ This statement reveals that FA has developed a sophisticated understanding of AI limitations that informs his verification practices, placing him at Level 4-5 cognitively despite the technical gap.

Concerning reflective development, FA showed gradual, consistent growth, acknowledging the importance of self-directed learning. He described his progression:

*"The change in using digital tools itself, I feel there have been some developments. For example, in using AI. At the beginning I only used basic prompts. But after I explored further and read more, it turns out that for AI use we cannot use very basic prompts or commands."*¹³⁶

This indicates that FA has developed increasingly sophisticated prompting strategies through reflective practice. He acknowledged the importance of self-directed learning: *"For learning to use tools, I usually learn through explanations from TikTok platforms. What prompted me to learn how to use these tools is because these tools are very important to help us in thesis writing."*¹³⁷ Regarding AI integration, FA demonstrated verification-first practices, using AI for brainstorming while always verifying outputs. This places him at Level 4-5 overall, with the technical

¹³⁵ Ibid.

¹³⁶ Ibid.

¹³⁷ Ibid.

gap in reference management being the primary factor preventing full Level 5 mastery.

c) NAN : Level 3-4 (Average to High)

The data analysis reveals that NAN's tool awareness was predominantly AI-focused. She was familiar with SciSpace, ChatGPT, Gemini, Google Scholar, and Sci-Hub. She had downloaded Zotero but could not operate it. This is captured in NAN's statement during the interview: *"I downloaded Zotero because a friend said it was useful, but I could not use it, so I stopped."*¹³⁸ This statement reveals that NAN's tool awareness is limited to popular AI platforms, and she lacks the technical competence to adopt formal academic tools like reference managers. This AI-focused awareness, combined with limited formal academic tool competence, reflects what might be termed a "bifurcated" competency pattern where high competence in one area coexists with low competence in another.

In terms of operational independence, NAN showed a paradoxical pattern: highly independent with popular AI tools but dependent on others for formal academic tools. This is reflected in her explanation during the interview: *"For that issue, there are many AIs used. There is DeepSeek, there is ChatGPT, there is Claude AI, and there is also Gemini. So I just take turns."*¹³⁹ This statement reveals that NAN has developed creative strategies to bypass AI free-tier limits by rotating across multiple platforms. However, she avoided SCImago and Scopus verification

¹³⁸ NAN, interview by author, IAIN Curup, 2026.

¹³⁹ Ibid.

because she did not know how to use them, relied on others to access paid resources, and gave up on Zotero after initial failure. This bifurcated independence pattern highlights that students may be independent in some dimensions while remaining dependent in others.

Concerning source evaluation, NAN's strategies were limited. She admitted not checking Scopus or SCImago. As she stated, *"For that, I usually look at the publication, what publication, who published it, there is the logo, right. There is a logo of the publisher, they do publish journals."*¹⁴⁰ This statement reveals that NAN relies on superficial cues such as logos and journal names rather than systematic verification. She admitted not checking Scopus or SCImago, placing her at Level 2-3 in the cognitive dimension despite her proficiency with AI tools. Regarding reflective development, NAN showed awareness of her AI dependence but limited growth in formal tool literacy. She admitted, *"Maybe too dependent on AI."*¹⁴¹ She learned through self-directed methods, but her reflective awareness was limited to identifying the problem without demonstrating clear strategies to address it. In terms of AI integration, NAN's approach reflected what could be termed "AI dependency," using AI as a substitute for critical engagement with source material. This passive consumption of AI outputs, combined with limited verification, places her at Level 3-4 overall.

d) RM : Level 3 (Average)

¹⁴⁰ Ibid.

¹⁴¹ Ibid.

The data analysis reveals that RM demonstrated the most limited tool awareness among all participants. Her knowledge came from peer and supervisor recommendations rather than independent exploration. This is evident from RM's statement during the interview: *"My lecturer told me to use Google Scholar. A friend introduced me to Quillbot. I did not really know about these tools before."*¹⁴² This statement reveals that RM's tool awareness is entirely passive, acquired through recommendations rather than independent exploration. She had no awareness of reference management tools, academic integrity tools beyond Quillbot, or formal academic communities. This passive knowledge acquisition, where tools are introduced by others rather than discovered independently, characterizes Level 2-3 competency.

Concerning operational independence, RM exhibited the most limited independence among all participants, relying heavily on peer and supervisor recommendations with basic functional use only. This is reflected in her explanation during the interview: *"Usually most often I ask friends or I ask friends if this is it or self-taught, usually I watch videos on YouTube or TikTok."*¹⁴³ This statement reveals that RM lacks initiative in exploring digital tools independently. During observation, she frequently paused to ask for confirmation and expressed hesitation. Her confidence level of "50-50" reflects the low digital self-efficacy that characterizes lower competency levels.¹⁴⁴ In terms of source evaluation, RM's strategy was the most superficial among all participants. As she stated, *"Usually if*

¹⁴² RM, interview by author, IAIN Curup, 2026.

¹⁴³ Ibid.

¹⁴⁴ Ibid.

there is a journal name, for example from University, or International Journal, usually I think that is already credible."¹⁴⁵ This statement reveals that RM relies on superficial cues such as the presence of "University" or "International Journal" in the title without checking author credentials, journal reputation, or publication date.

Regarding reflective development, RM showed the slowest growth among all participants. She reflected on areas needing development, but her limited metacognitive awareness, combined with slow growth, places her at Level 3 developmentally. As she stated, *"The difference, for example, becomes better, can know where the prompts are. So it is better. So it is also independent in doing it. First, at the beginning, I did not know. I only learned from friends, from asking questions. The more we use it, the more familiar we become."*¹⁴⁶ She reflected on areas needing development: *"What is it? There is, I think. For example, about prompts, how we instruct this AI to match our wishes."*¹⁴⁷ In terms of AI integration, RM's approach reflected the most passive AI consumption among all participants, where AI does the cognitive work of interpretation rather than the student. Combined with her anxiety about Turnitin's AI detection capabilities, her AI dependency represents the greatest challenge to her academic integrity and digital literacy development. This places her at Level 3 overall.

e) MAN : Level 5 (Advanced Mastery)

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

¹⁴⁷ MAN, interview by author, IAIN Curup, 2026.

The data analysis reveals that MAN exhibited comprehensive tool awareness with operational understanding. He knew Google Scholar, Mendeley, Microsoft Word, ChatGPT, Turnitin, Grammarly, Quillbot, Google Drive, ResearchGate, and Academia.edu before or during his thesis journey. This is captured in MAN's statement during the interview:

*"Now I already know several digital tools specifically designed to support academic research. For example, I know Mendeley as a reference management application, Google Scholar for finding scientific references, Turnitin for checking similarity, and Grammarly to help improve my grammar. And also Quillbot as an additional tool for paraphrasing my writing."*¹⁴⁸

This statement reveals that MAN's knowledge is not merely awareness but operational understanding of each tool's specific function. Significantly, MAN was the only participant who had received any formal training (Mendeley and Turnitin from campus), though he acknowledged it was not sufficient: *"I received basic training about Mendeley and Turnitin from campus, but I still need to learn more independently because I did not learn enough at campus."*¹⁴⁹

Concerning operational independence, MAN demonstrated the highest level of independence among all participants, particularly in formal academic tools. His workflow was seamless and integrated. This is reflected in MAN's explanation during the interview:

¹⁴⁸ Ibid.

¹⁴⁹ Ibid.

*"I integrate several digital tools in one mutually supportive workflow. Usually, I start by searching for articles through Google Scholar, then manage references using Mendeley. When I write using Microsoft Word, and occasionally use ChatGPT to help understand theory or improve sentences. After I finish writing, I use Grammarly to check grammar and Turnitin to ensure my similarity level."*¹⁵⁰

This statement reveals that MAN has developed a fully integrated, seamless workflow where each tool serves a specific purpose in the writing process. During observation sessions, he moved fluidly and self-directedly between multiple academic platforms in a single working session without external prompting, placing him at Level 5 in operational independence.

In terms of source evaluation, MAN employed a structured evaluation framework incorporating DOI, peer-review status, and journal reputation, along with Boolean operators for strategic searching. As he stated, *"When I look for references, I try to ensure that the source used is truly credible. I usually see whether the article comes from a trusted scientific journal or has a DOI or not. And published by a clear publisher or not. Also, I pay attention to the publication year."*¹⁵¹ He also used Boolean operators for strategic searching: *"I also often limit search results based on publication year to get the latest research. Sometimes, I also use connecting words like AND, OR to narrow or expand search results."*¹⁵² This represents the kind

¹⁵⁰ Ibid.

¹⁵¹ Ibid.

¹⁵² Ibid.

of sophisticated critical evaluation that Bawden identifies as characteristic of advanced digital literacy.¹⁵³

Regarding reflective development, MAN demonstrated the most clearly documented three-stage developmental trajectory with explicit articulation of stage-specific tool use and awareness of continued development needs. This is demonstrated in MAN's description during the interview:

*"At the initial stage, I used digital tools more for finding references and understanding the theory of my research topic. When entering the middle stage, I focused more on using digital tools for reference management using Mendeley, research instrument preparation, and thesis writing. Meanwhile, at this final stage, I use Turnitin more often to check similarity, Grammarly also to improve grammar, and various storage platforms like Cloud to ensure all data and documents are stored safely."*¹⁵⁴

This statement reveals that MAN possesses exceptional metacognitive awareness of his own developmental progression. He also acknowledged areas for continued development:

"I realize that my ability to use technology has developed compared to before, but there are still several aspects that need to be improved. For example, I still want to learn more about using more complex international databases, more relevant article search techniques, as well as ways to evaluate source quality more critically. In addition, I

¹⁵³ Bawden, "Origins and Concepts of Digital Literacy," 17-32.

¹⁵⁴ MAN, interview by author, IAIN Curup, 2026.

want to improve my understanding of ethical AI use in academic contexts."¹⁵⁵

This represents the highest level of metacognitive engagement. In terms of AI integration, MAN's approach represented a model of critical AI literacy. His verification-first approach, combined with understanding AI's capabilities and limitations, represents the sophisticated AI integration that characterizes Level 5 mastery.

A significant finding emerging from the competency analysis is the technical-cognitive gap observed across participants. Several participants demonstrated high cognitive ability in synthesis, argumentation, and scholarly voice, but low technical skills in citation formatting and bibliography management. NAN exhibited the most pronounced imbalance, MAN showed the most extreme imbalance, and FA exhibited the largest and most problematic imbalance with a fatal content anomaly indicating uncritical copy-paste without proper editing. This technical-cognitive gap confirms that high cognitive ability does not automatically translate to technical referencing proficiency and suggests that digital literacy consists of distinct sub-competencies that may develop at different rates.¹⁵⁶ This finding supports the need for dimensional assessment of digital literacy rather than global assessment that averages across competencies.

The findings offer several theoretical contributions. First, this study validates Ng's five-level digital literacy scale in EFL thesis writing

¹⁵⁵ Ibid.

¹⁵⁶ Kucer, "Dimensions of Literacy".

contexts. The distribution of participants across levels 2-5 demonstrates the framework's applicability beyond general educational settings. However, the findings also suggest that contextual factors such as institutional support significantly shape how students navigate these levels. MAN's achievement of full Level 5 mastery, as the only participant using Mendeley and Turnitin, underscores the importance of organizational literacy as a differentiating factor.¹⁵⁷

Second, the importance of reflective awareness is confirmed. The correlation between reflective awareness and competency level suggests metacognition should be considered a core component of digital literacy frameworks, supporting Martin's emphasis on "attitudes and reflection." MAN's explicit articulation of a three-stage developmental trajectory exemplifies the kind of reflective practice that distinguishes advanced digital literacy.¹⁵⁸ DFH's conscious decision-making about tool selection and FA's gradual progression from basic to sophisticated AI prompting further support the centrality of reflective awareness in digital literacy development.

Third, the "AI literacy" gap observed suggests that critical evaluation of AI-generated content represents a distinct sub-competency. The differences in AI tool use between high-level and low-level users underscore the importance of developing critical AI literacy as part of academic digital competence. The distinction between "critical AI literacy" (verification-first, practiced by DFH, FA, and MAN) and "AI

¹⁵⁷ Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078.

¹⁵⁸ Martin, "European Framework for Digital Literacy," 151-176.

dependency" (acceptance without verification, practiced by NAN and RM) represents a significant finding that extends current digital literacy frameworks to address the AI era.¹⁵⁹

Fourth, the technical-cognitive gap identified in this study suggests that digital literacy is multidimensional and context-dependent. Students may be at different levels for different dimensions, as observed in NAN and MAN who demonstrated high cognitive competence but low technical competence in referencing. This finding challenges the notion that digital literacy can be assessed globally and instead supports dimensional assessment that recognizes the distinct nature of technical, cognitive, and ethical competencies.¹⁶⁰ The bifurcated patterns observed across participants illustrate the importance of assessing digital literacy dimensionally rather than globally.

Fifth, the finding that MAN, the only participant who received any formal training, achieved the highest competency level while participants who relied exclusively on self-directed learning achieved lower levels, suggests that formal training provides a valuable foundation that cannot be fully replicated through informal learning alone.¹⁶¹ However, the insufficiency of formal training also suggests that a hybrid approach, combining formal training with self-directed learning, is most effective. Finally, the study highlights the need for contextualized digital literacy assessment and intervention. The variation in competency levels within the

¹⁵⁹ Martin, "European Framework for Digital Literacy," 151-176.

¹⁶⁰ Al-Zubaidi, "Challenges of Artificial Intelligence".

¹⁶¹ Bawden, "Origins and Concepts of Digital Literacy," 17-32.

same program suggests that students require differentiated support based on their specific strengths and weaknesses.

3. Challenges Faced

The findings reveal that students face multifaceted challenges in implementing digital literacy during thesis writing. These challenges span technical, cognitive, Social-Emotional, and instructional dimensions, confirming the complexity of digital literacy development identified in the theoretical framework. The interconnected nature of these challenges suggests that addressing any single challenge in isolation may be insufficient.

a) Technical Challenges

Concerning technical challenges, the findings confirm Dewi et al.'s observation that even in institutions with access to technology, disparities in students' digital exposure result in unequal readiness to engage in academic digital tasks.¹⁶² The absence of institutional database subscriptions, particularly for Elsevier and Taylor & Francis, forced students to rely on workarounds. This is evident from DFH's statement during the interview. As he mentioned:

*"Yes, there are some articles on Elsevier that have limited access because the campus does not subscribe. I usually try to find alternatives by directly requesting them from the authors through ResearchGate, although sometimes it is difficult to get a response."*¹⁶³

This statement reveals that DFH proactively seeks alternative solutions to access barriers, though he acknowledges the limitations of this

¹⁶² Dewi et.al, "Implications and Impact of Digital Literacy," 123-134.

¹⁶³ DFH, interview by author, IAIN Curup, 2026.

approach. FA similarly reported using Sci-Hub to access paywalled articles: *"Some articles are usually paid and cannot be accessed. One solution is using Sci-Hub where we can copy-paste the DOI from articles that are not open access."*¹⁶⁴ This indicates that students resort to less academically legitimate workarounds when institutional access is unavailable. MAN also experienced paywall barriers, stating, *"Some journals are paid, I cannot access them because of institutional subscription limitations. As a result, I look for alternative sources that can be accessed for free."*¹⁶⁵ This reveals that paywall barriers are a universal challenge across all competency levels, though more advanced students like MAN seek academically legitimate alternatives such as ResearchGate.

Internet connectivity emerged as a persistent technical challenge affecting all participants. FA stated, *"Technical problems that always occur are connection problems, internet problems. When the network becomes bad, I usually switch networks. I use 2 SIM cards."*¹⁶⁶ This statement reveals that connectivity issues are so frequent that FA has developed coping strategies such as using multiple SIM cards. MAN similarly reported, *"I often experience problems such as unstable internet connections, and sometimes my laptop is slow when opening many files or applications at once."*¹⁶⁷ This indicates that technical infrastructure limitations affect even the most digitally competent students. NAN experienced the most severe technical issue, laptop failure that resulted in

¹⁶⁴ FA, interview by author, IAIN Curup, 2026.

¹⁶⁵ MAN, interview by author, IAIN Curup, 2026.

¹⁶⁶ FA, interview by author, IAIN Curup, 2026.

¹⁶⁷ MAN, interview by author, IAIN Curup, 2026.

data loss. As she explained, *"The laptop was glitching like that. When I needed it most. Yes, it happened. But it was more like, I had finished, then turned off the laptop, it could not turn on again. But I had sent it via WhatsApp. So it was still there. But all the files inside were lost."*¹⁶⁸ This statement reveals the vulnerability of students who rely on informal backup practices, as NAN's WhatsApp backup proved insufficient when her laptop failed completely.

The universal non-use of reference management tools among DFH, FA, NAN, and RM, despite awareness of their existence, represents a technical challenge rooted in instructional gaps. NAN explained, *"I downloaded Zotero because a friend said it was useful, but I could not use it, so I stopped. Taylor & Francis, it is difficult to use Taylor & Francis? Yes, because it must be paid first. So it is quite confusing."*¹⁶⁹ This statement reveals that even when students attempt to adopt reference management tools, lack of formal training leads to abandonment. RM admitted, *"No. I do not use it? Because... I am confused about how to use it. So I do not use it, I do it manually."*¹⁷⁰ This indicates that confusion about tool usage is a primary barrier to adoption. FA revealed his lack of confidence: *"I know Mendeley can generate citations automatically, but I always do it manually because I am not confident if I use that software because I might make mistakes."*¹⁷¹ MAN's successful adoption of

¹⁶⁸ NAN, interview by author, IAIN Curup, 2026.

¹⁶⁹ Ibid.

¹⁷⁰ RM, interview by author, IAIN Curup, 2026.

¹⁷¹ FA, interview by author, IAIN Curup, 2026.

Mendeley through self-directed learning combined with partial formal training demonstrates that institutional support can overcome this barrier.

The technical challenges associated with AI tool use, including free-tier limits, hallucination, and bias, represent emerging challenges not adequately addressed in existing digital literacy frameworks. RM reported AI free-tier limits: *"Usually the problem is because there is a usage limit, so usually I wait until tomorrow, then I use it again."*¹⁷² This statement reveals that free-tier limitations disrupt students' workflow, forcing them to pause their work until usage limits reset. She also reported AI bias: *"Sometimes it is biased towards us. We say this, it also says this. So we want to find out the truth. So sometimes it is biased towards us who follow our tone. Even though we ourselves are wrong."*¹⁷³ This indicates that RM has encountered AI bias but lacks the critical skills to effectively address it. FA reported that AI free-tier limits caused fatigue: *"For fatigue from using digital tools, it often happens, especially in using AI. Because first, if we do not have AI premium, we only get limitations or set limits, command limits that we can give for several hours or for one day."*¹⁷⁴ This reveals that free-tier limitations not only disrupt workflow but also cause psychological fatigue. Significantly, MAN was the only participant who did not report AI free-tier limits as a challenge, as he used ChatGPT primarily for understanding concepts rather than as an answer engine. His more limited use of AI for conceptual understanding meant he experienced

¹⁷² RM, interview by author, IAIN Curup, 2026.

¹⁷³ Ibid.

¹⁷⁴ FA, interview by author, IAIN Curup, 2026.

fewer free-tier limitations, suggesting that the nature of AI use influences the challenges encountered.¹⁷⁵

b) Cognitive Challenges

Regarding cognitive challenges, information overload and research gap identification reflect what Bartolone identified as the difficulty students face when exposed to large-scale databases; they may rely too heavily on top-listed results without evaluating their depth or academic rigor.¹⁷⁶ This is evident from DFH's statement during the interview. As he mentioned:

*"In my opinion, the most difficult thing is finding sources and managing the data. There are so many articles and books that we need to find and understand all of them to see where the research gap is."*¹⁷⁷

This statement reveals that DFH experiences cognitive overload from the volume of available sources, requiring systematic strategies to identify research gaps. MAN similarly reported:

*"One of the digital tasks that I find most difficult is finding sources that are truly relevant and of high quality. Sometimes my search results are so many that I am confused about determining which article is most suitable for my research topic."*¹⁷⁸

This indicates that even advanced students experience information overload, though they employ more sophisticated filtering strategies.

¹⁷⁵ MAN, interview by author, IAIN Curup, 2026.

¹⁷⁶ Bartolone, "Digitally Collaborative".

¹⁷⁷ DFH, interview by author, IAIN Curup, 2026.

¹⁷⁸ MAN, interview by author, IAIN Curup, 2026.

DFH's systematic approach to research gap identification, using citation analysis, journal ranking, and systematic filtering, and MAN's use of Boolean operators represent advanced strategies that less proficient students were unable to employ.

The challenge of AI hallucination, where AI generates fictitious references that appear authentic, represents a new cognitive challenge not addressed in earlier digital literacy frameworks. This finding aligns with Al-Zubaidi's concern that uncritical AI use may lead to academic integrity issues.¹⁷⁹ This is reflected in FA's statement during the interview: *"Not all references given by AI are real references. I once got a reference that looked real but turned out not to exist in the database."*¹⁸⁰ This statement reveals that FA has developed critical awareness of AI limitations, but this required additional verification work. As he explained, *"After getting the article data, I check whether the article really exists or not on Google Scholar, Semantic Scholar, or Taylor & Francis."*¹⁸¹ MAN's verification-first approach, checking AI outputs against academic sources, represents a coping strategy for this challenge that less proficient students were unable to employ.

The ambiguity in paraphrasing boundaries reflects what Ng identifies as the cognitive dimension's concern with critical evaluation and ethical use of digital content.¹⁸² Students' uncertainty about what constitutes

¹⁷⁹ Al-Zubaidi, "Challenges of Artificial Intelligence".

¹⁸⁰ FA, interview by author, IAIN Curup, 2026.

¹⁸¹ Ibid.

¹⁸² Ng, "Can We Teach Digital Natives Digital Literacy?," 1065-1078.

acceptable paraphrasing suggests that this skill requires explicit instruction, which was absent in the participants' experiences. FA stated:

*"What is still confusing is the paraphrase boundary. The paraphrase boundary is actually quite complicated to understand, because when we paraphrase the information we get, the content can change when we paraphrase that information."*¹⁸³

This statement reveals that even students with relatively high competency struggle with paraphrasing boundaries. MAN explicitly expressed concern about *"the boundary between good paraphrasing and too high similarity, so I often recheck my writing using Turnitin."*¹⁸⁴ This indicates that even advanced users experience this challenge and rely on integrity tools to mitigate uncertainty. DFH expressed similar uncertainty:

*"Sometimes I still feel a little worried or unsure about the boundaries of unintentional plagiarism."*¹⁸⁵ This reveals that uncertainty about paraphrasing boundaries persists across all competency levels, though more advanced students develop verification strategies to address it. NAN reported difficulty synthesizing multiple perspectives, while RM similarly identified difficulty finding specific theories that must be synthesized. MAN also reported difficulty distinguishing peer-reviewed from non-academic sources in the early stages, a challenge more pronounced among lower-level participants who lacked systematic evaluation strategies.

c) Social-Emotional Challenges

¹⁸³ FA, interview by author, IAIN Curup, 2026.

¹⁸⁴ MAN, interview by author, IAIN Curup, 2026.

¹⁸⁵ DFH, interview by author, IAIN Curup, 2026.

As far as the data analysis is concerned, the Social-Emotional challenges identified confirm Getenet et al.'s finding that students' attitudes and digital literacy levels directly predict their digital self-efficacy.¹⁸⁶ The inverse relationship between AI dependency and self-efficacy is particularly noteworthy. This is evident from RM's statement during the interview: *"Anxious, yes. Because it is used continuously, right. Yes, I am worried because we are dependent, right. So I am anxious if Turnitin still detects AI."*¹⁸⁷ This statement reveals that RM's heavy AI dependence generates anxiety about academic integrity, creating a cycle of dependency and fear. Her confidence level of "50-50" reflects the low digital self-efficacy that characterizes lower competency levels. FA expressed significant doubt about AI tool reliability:

*"For using digital tools, for confidence level, actually there are many doubts when using AI tools, especially using AI that we use to help write our thesis. Because sometimes AI provides sources or writes something that is unclear and not related to our thesis at all."*¹⁸⁸

This indicates that FA's critical awareness of AI limitations, while cognitively sophisticated, also generates affective uncertainty.

The fear of Turnitin AI detection, despite not having used Turnitin, represents what might be called "anticipatory anxiety", concern about a future scenario that has not yet occurred. This anxiety was most pronounced in RM, who acknowledged heavy AI dependence and was aware that this dependence might be detected. RM's statement *"Turnitin is*

¹⁸⁶ Getenet et al., "Students' Digital Technology Attitude," 2024.

¹⁸⁷ RM, interview by author, IAIN Curup, 2026.

¹⁸⁸ FA, interview by author, IAIN Curup, 2026.

different, you know" reveals a perception of Turnitin as an adversarial tool rather than a supportive one.¹⁸⁹ In contrast, MAN's use of Turnitin as a confidence-building tool represents a fundamentally different affective orientation. This is reflected in his statement during the interview:

*"I use Turnitin to check the similarity level of my writing... When the similarity result is still high, I will recheck which parts are problematic and paraphrase them using my own words and with the help of Turnitin."*¹⁹⁰

This statement reveals that MAN approaches Turnitin as a supportive tool for improvement rather than a threat. This contrast suggests that familiarity and routine use of integrity tools can transform anxiety into confidence, supporting the importance of institutional training and access.

The cognitive dissonance between AI dependency and integrity concerns suggests that AI use is accompanied by significant psychological burden. NAN admitted, *"Maybe too dependent on AI,"* while RM expressed anxiety about AI detection.¹⁹¹ NAN expressed frustration when AI did not meet her expectations: *"Sometimes it is also dead end. We ask something. But the answer is somewhat different. Actually that is not what we wanted. But we are given something like that."*¹⁹² This finding supports Al-Zubaidi's concern that while AI tools can offer convenience, they may also reduce students' engagement with the writing process, potentially

¹⁸⁹ RM, interview by author, IAIN Curup, 2026.

¹⁹⁰ MAN, interview by author, IAIN Curup, 2026.

¹⁹¹ NAN, interview by author, IAIN Curup, 2026

¹⁹² Ibid.

hindering critical thinking development.¹⁹³ MAN exhibited a notably different affective profile. He reported moderate self-efficacy and localized anxiety to citation concerns rather than Turnitin. Significantly, MAN used Turnitin as a confidence-building tool rather than a source of anxiety, contrasting sharply with RM's Turnitin anxiety. DFH also reported generally high self-efficacy: *"I rarely ask for help from others when using academic databases or reference tools. I prefer to do it independently because I am quite confident in my own abilities."*¹⁹⁴ This suggests that higher competency levels are associated with greater digital self-efficacy and more constructive affective orientations.

d) Instructional Gaps

Regarding instructional gaps, the findings align with Turmudi, who found that students often express a desire for clearer guidance and mentorship in using digital tools within academic conventions.¹⁹⁵ The absence of structured formal training, reported by all participants, explains why students rely on informal learning sources such as YouTube, TikTok, and peer networks. This is evident from DFH's statement during the interview. As he mentioned:

*"My supervisor focuses more on the substance of the thesis content, so specific guidance on digital tools is not much. I learn more independently about how to use AI and software through tutorials on YouTube or internet discussion forums."*¹⁹⁶

¹⁹³.Al-Zubaidi, "Challenges of Artificial Intelligence".

¹⁹⁴ DFH, interview by author, IAIN Curup, 2026.

¹⁹⁵ Turmudi, "Experience and Capability of Teacher-Educator Authors".

¹⁹⁶ DFH, interview by author, IAIN Curup, 2026.

This statement reveals that supervisors prioritize content over digital tool proficiency, leaving students to develop digital literacy independently. He also noted the absence of institutional database subscriptions: *"In my opinion, it is not enough. When I try to access premium databases like Taylor & Francis or Elsevier, there is no institutional access available."*¹⁹⁷ This indicates that instructional gaps extend beyond training to include inadequate institutional infrastructure.

The finding that peer learning was more influential than institutional guidance, particularly for NAN and RM, suggests that students fill instructional gaps through informal networks. NAN reported being introduced to some tools in class but receiving no follow-up training:

*"Yes. It was already in the group. But there was a link for how to use it. But now I do not follow it anymore. It turned out to be more from the institution. Yes. More from the supervisor rather than looking at groups that teach."*¹⁹⁸

This statement reveals that initial exposure to tools is insufficient without ongoing support and guidance. RM reported that supervisors provided informal suggestions: *"Maybe more just suggestions. Sometimes they also told me how to make prompts for instructions to ChatGPT, small things, but not much."*¹⁹⁹ This indicates that supervisor guidance is minimal and informal, lacking structured digital literacy instruction. While peer learning can be valuable, it may also perpetuate incorrect practices or incomplete understanding. The absence of a curriculum-integrated digital

¹⁹⁷ Ibid.

¹⁹⁸ NAN, interview by author, IAIN Curup, 2026.

¹⁹⁹ RM, interview by author, IAIN Curup, 2026.

literacy component in the TBI program means that students' digital literacy development is left to chance, resulting in the wide variation observed in competency levels.

MAN's experience provides a crucial nuance to this finding. He was the only participant who confirmed receiving formal training: *"I received basic training about Mendeley and Turnitin from campus, but I still need to learn more independently because I did not learn enough at campus."*²⁰⁰

This statement reveals that formal training exists but is insufficient and not universally accessible. He also acknowledged the limitations of this training: *"In my opinion, more in-depth guidance on article searching, database use, and reference management would be very helpful for those who are just starting to write a thesis."*²⁰¹ MAN was also the only participant who achieved full Level 5 competency, and the only participant who used Mendeley and Turnitin. While correlation does not imply causation, this association suggests that even partial institutional training can significantly contribute to digital literacy development. The observation data confirmed that participants' digital practices reflected formally taught habits only minimally. Without structured institutional support, students developed fragmented, self-taught approaches that varied significantly in effectiveness. This finding supports Sánchez-Cruzado et al.'s identification of a critical "digital competence gap" among educators

²⁰⁰ MAN, interview by author, IAIN Curup, 2026.

²⁰¹ Ibid.

themselves; if educators struggle with digital integration, it explains why students often resort to self-taught methods.²⁰²

e) Interconnectedness of Challenges

The interconnected nature of the identified challenges is significant. Technical challenges such as paywalls and internet issues exacerbate cognitive challenges like information overload, which in turn generate affective challenges including anxiety and low self-efficacy. Instructional gaps underlie all these challenges, as the absence of structured guidance leaves students to navigate these difficulties independently. For example, RM's limited technical proficiency with reference managers contributed to her cognitive difficulty in organizing sources, which in turn generated anxiety about academic integrity. MAN's partial institutional training in Mendeley and Turnitin appears to have broken this cycle, enabling him to develop the technical proficiency that reduced cognitive burden and affective anxiety. His ability to use Turnitin as a confidence-building tool rather than a source of anxiety demonstrates how institutional support can transform the affective dimension of digital literacy.

Three cross-cutting themes emerged across the challenges. The "AI Dependency Paradox" revealed that while all participants integrated Generative AI into their thesis writing, the nature of integration varied from critical AI literacy to AI dependency. The predominance of "Self-Taught Digital Navigation" through informal platforms indicated that students are filling instructional gaps independently but with uneven

²⁰² Sánchez-Cruzado, Santiago Campión, and Sánchez-Compañá, "Teacher Digital Literacy," 1858.

outcomes. The "Institutional Gaps and Access Inequity" theme highlighted that the absence of database subscriptions, reference manager training, academic integrity tool access, and formal digital literacy instruction creates an uneven playing field where students with high initiative and self-efficacy can overcome gaps through self-directed learning, but students with lower initiative remain constrained by them.

The findings for the challenges reveal that TBI students face multifaceted challenges in implementing digital literacy during thesis writing. The interconnected nature of these challenges suggests that addressing any single challenge in isolation may be insufficient. A comprehensive approach addressing technical access, cognitive strategies, affective support, and instructional scaffolding is required. MAN's experience provides a counterpoint: his partial institutional training, combined with self-directed learning, enabled him to overcome many of these challenges more effectively than participants who relied exclusively on informal learning. This underscores the importance of structured institutional support as a foundation for digital literacy development, with self-directed learning serving as a complement rather than a replacement.

CHAPTER V

CONCLUSION

A. Conclusion

This study set out to explore the architecture of academic digital literacy through a multidimensional analysis of EFL students' thesis writing in the English Tadris Study Program (TBI) at IAIN Curup. By employing a qualitative case study design, the research investigated three core aspects: the types of digital literacy used by students, their competency levels, and the challenges they face during the thesis writing process. The triangulation of data from in-depth interviews, direct observations, and document analysis has yielded comprehensive insights that address the research questions and contribute to the theoretical and practical understanding of digital literacy in EFL academic contexts.

Regarding the types of digital literacy used, the findings reveal that TBI students employ a multidimensional range of digital literacy during thesis writing, spanning technical, cognitive, social-emotional, sociocultural, and developmental dimensions. All participants demonstrated functional competence in operating academic search engines, yet a significant gap emerged in the universal non-use of reference management tools and academic integrity tools among most participants. The extensive integration of Generative AI tools across all participants represented a significant shift in academic writing practices, though the nature of AI engagement varied considerably from critical AI literacy to AI dependency. Engagement with academic digital communities was limited, with only one participant

demonstrating active participation in formal academic platforms. The predominance of self-directed learning through informal platforms suggests that students are filling instructional gaps independently, but with uneven results, underscoring the need for structured institutional support.

Concerning competency levels, the five participants demonstrated varying competency levels according to Wan Ng's five-level digital literacy scale, with levels ranging from Average to Advanced Mastery. This distribution challenges the assumption that university students naturally possess high digital literacy competencies. Key differentiators between competency levels included reflective development, independence in problem-solving, source evaluation sophistication, and organizational literacy. The only participant who received formal training achieved the highest competency level, suggesting that even partial institutional training provides a valuable foundation. A significant finding emerging from the competency analysis is the technical-cognitive gap observed across participants, where high cognitive ability did not automatically translate to technical referencing proficiency, confirming that digital literacy consists of distinct sub-competencies that develop at different rates.

With respect to the challenges faced, the findings reveal that students encounter multifaceted difficulties spanning technical, cognitive, Social-Emotional, and instructional dimensions. Technical challenges include paywalls, internet connectivity issues, hardware failure, and AI tool limitations. Cognitive challenges include information overload, AI hallucination, ambiguity in paraphrasing boundaries, and difficulty

synthesizing multiple perspectives. Social-Emotional challenges include plagiarism anxiety, Turnitin fear, low self-efficacy, and AI dependency concerns. Instructional gaps include the absence of structured formal training and insufficient supervisor guidance on digital tools. The interconnected nature of these challenges suggests that addressing any single challenge in isolation may be insufficient. MAN's experience demonstrates that partial institutional training combined with self-directed learning can effectively overcome many challenges, underscoring the importance of structured institutional support as a foundation for digital literacy development.

B. Suggestion

Based on the findings, several targeted suggestions are offered for students, lecturers, institutions, and future researchers. Students should move beyond basic digital use by proactively learning reference management tools such as Mendeley or Zotero, either through self-directed study or by requesting institutional training. They should also adopt a critical approach to AI, using it for brainstorming and concept clarification while consistently verifying outputs against trusted academic sources. Additionally, students are encouraged to expand their scholarly networks through platforms like ResearchGate or Academia.edu, and to implement systematic file backup practices to safeguard their work against potential data loss.

For lecturers and supervisors, the findings highlight the need to integrate explicit digital literacy instruction into academic guidance rather than focusing solely on content substance. They should demonstrate the use of reference management tools, advanced search strategies, and academic integrity checkers

during supervision, while also providing explicit instruction on paraphrasing boundaries and citation conventions to bridge the observed technical-cognitive gap. Supervisors are also encouraged to model professional digital communication and facilitate peer learning networks, ensuring that correct practices are promoted among students who currently rely heavily on informal peer advice.

Institutions must establish structured, curriculum-integrated digital literacy programs to provide foundational training, as the current absence of formal instruction leaves students reliant on self-taught and often inadequate methods. Equally important is the provision of institutional subscriptions to premium academic databases and tools like Turnitin to address access inequity. Establishing digital literacy support centers or workshops, alongside regular assessments of student needs, will ensure interventions remain effective and equitable across the program.

For future research, longitudinal studies are needed to track how digital literacy competencies evolve over time and identify critical intervention points. Comparative research across multiple institutions would enhance generalizability beyond the current single-case context. Given the growing prevalence of generative AI, dedicated investigation into AI literacy as a distinct sub-competency is urgently required. Finally, quantitative and intervention-based studies would provide statistical validation for the effectiveness of structured training programs and their impact on student self-efficacy and academic outcomes. By addressing these recommendations, institutions can foster a digitally competent academic culture that supports

students' scholarly success and prepares them for the demands of the knowledge society.

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A P P E N D I C E S

APPENDIX 1 SK PEMBIMBING

 KEMENTERIAN AGAMA REPUBLIK INDONESIA INSTITUT AGAMA ISLAM NEGERI CURUP FAKULTAS TARBIYAH Alamat : Jalan DR. A.K. Gani No 1 Kotak Pos 108 Curup-Bengkulu Telpn. (0732) 21010 Fax. (0732) 21010 Homepage http://www.iaincurup.ac.id E-Mail : admin@iaincurup.ac.id	
Nomor : 299 Tahun 2026 Tentang PENUNJUKAN PEMBIMBING I DAN 2 DALAM PENULISAN SKRIPSI INSTITUT AGAMA ISLAM NEGERI CURUP	
Menimbang :	a. Bahwa untuk kelancaran penulisan skripsi mahasiswa, perlu ditunjuk dosen Pembimbing I dan II yang bertanggung jawab dalam penyelesaian penulisan yang dimaksud ; b. Bahwa saudara yang namanya tercantun dalam Surat Keputusan ini dipandang cakap dan mampu serta memenuhi syarat untuk diserahi tugas sebagai pembimbing I dan II ;
Mengingat :	1. Undang-Undang Nomor 20 tahun 2003 tentang Sistem Pendidikan Nasional ; 2. Peraturan Presiden RI Nomor 24 Tahun 2018 tentang Institut Negeri Islam Curup ; 3. Peraturan Menteri Agama RI Nomor : 30 Tahun 2018 tentang Organisasi dan Tata Kerja Institut Agama Islam Negeri Curup ; 4. Keputusan Menteri Pendidikan Nasional RI Nomor 184/U/2001 tentang Pedoman Pengawasan Pengendalian dan Pembinaan Program Diploma, Sarjana dan Pascasarjana di Perguruan Tinggi ; 5. Keputusan Menteri Agama RI Nomor 019558/B.II/3/2022, tanggal 18 April 2022 tentang Pengangkatan Rektor IAIN Curup Periode 2022 - 2026. 6. Keputusan Direktur Jenderal Pendidikan Islam Nomor : 3514 Tahun 2016 Tanggal 21 oktober 2016 tentang Izin Penyelenggaraan Program Studi pada Program Sarjana STAIN Curup 7. Keputusan Rektor IAIN Curup 0704/In.34/R/KP.07.6/09/2023 tanggal 29 September 2023 tentang Pengangkatan Dekan Fakultas Tarbiyah Institut Agama Islam Negeri Curup.
Memperhatikan :	1. Permohonan Saudara Abdul Karim Amrullah tanggal 11 Mei 2026 dan kelengkapan persyaratan pengajuan SK Pembimbing Skripsi 2. Berita Acara Seminar Proposal Pada Hari Kamis, 26 Februari 2026
MEMUTUSKAN :	
Menetapkan	
Pertama :	1. Dr. Prihantoro, M.Pd 197508202008011004 2. Meli Fauziah, M.Pd 199405232020122003
	Dosen Institut Agama Islam Negeri (IAIN) Curup masing-masing sebagai Pembimbing I dan II dalam penulisan skripsi mahasiswa : N A M A : Abdul Karim Amrullah N I M : 22551001 JUDUL SKRIPSI : Exploring the Architecture of Academic Digital Literacy: A Multidimensional Analysis of EFL Students' Thesis Writing
Kedua :	Proses bimbingan dilakukan sebanyak 12 kali pembimbing I dan 12 kali pembimbing II dibuktikan dengan kartu bimbingan skripsi ;
Ketiga :	Pembimbing I bertugas membimbing dan mengarahkan hal-hal yang berkaitan dengan substansi dan konten skripsi. Untuk pembimbing II bertugas dan mengarahkan dalam penggunaan bahasa dan metodologi penulisan ;
Keempat :	Kepada masing-masing pembimbing diberi honorarium sesuai dengan peraturan yang berlaku ;
Kelima :	Surat Keputusan ini disampaikan kepada yang bersangkutan untuk diketahui dan dilaksanakan sebagaimana mestinya ;
Keenam :	Keputusan ini berlaku sejak ditetapkan dan berakhir setelah skripsi tersebut dinyatakan sah oleh IAIN Curup atau masa bimbingan telah mencapai 1 tahun sejak SK ini ditetapkan ;
Ketujuh :	Apabila terdapat kekeliruan dalam surat keputusan ini, akan diperbaiki sebagaimana mestinya sesuai peraturan yang berlaku.
Ditetapkan di Curup, Pada tanggal 11 Mei 2026 Dekan,  Sutarto	
Tembusan : 1. Rektor 2. Bendahara IAIN Curup, 3. Kabag Akademik kemahasiswaan dan kerja sama, 4. Mahasiswa yang bersangkutan	

APPENDIX 2 SK PENELITIAN

**KEMENTERIAN AGAMA REPUBLIK INDONESIA**
INSTITUT AGAMA ISLAM NEGERI CURUP
FAKULTAS TARBIYAH
Jln. Dr. A.K. Gani No.01 Kotak Pos 108 Telp. (0752) 21010-21759 Fax 21010
Homepage: <http://www.iaicurup.ac.id> Email: admin@iaicurup.ac.id Kode Pos 39119

IAIN CURUP

Nomor : /In.34/FT/PP.00.9/05/2026
Lampiran :
Hal :
1 Juli 2026

Proposal dan Instrumen
Permohonan Izin Penelitian

Kepada Yth. Rektor IAIN Curup

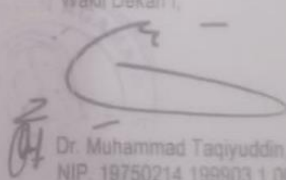
Assalamualaikum Wr. Wb

Dalam rangka penyusunan skripsi S.1 pada Institut Agama Islam Negeri Curup :

Nama : Abdul Karim Amrullah
NIM : 22551001
Fakultas/Prodi : Tarbiyah / Tadris Bahasa Inggris
Judul Skripsi : Exploring the Architecture of Academic Digital Literacy: A Multidimensional Analysis of EFL Students' Thesis Writing
Waktu Penelitian : 02 Juni 2026 s.d. 02 September 2026
Lokasi Penelitian : Prodi TBI IAIN Curup

Mohon kiranya Bapak berkenan memberi izin penelitian kepada Mahasiswa yang bersangkutan.
Demikian atas kerjasama dan izinnya diucapkan terimakasih

a.n Dekan
Wakil Dekan I,


Dr. Muhammad Taqiyuddin, M.Pd.I
NIP. 19750214 199903 1 005

Tembusan : disampaikan Yth :

1. Rektor
2. Wakil 1
3. Ka. Biro AUAK
4. Arsip

APPENDIX 3 LEMBAR VALIDASI

No.	Aspect / Dimension	Indicators	Items [I] = Interview [O] = Observation [D] = Document Analysis	Theoretical Basis
			indikator kunci menyoal "institutional infrastructure" (misalnya akses database, fasilitas kampus), tapi belum ada pertanyaan yang langsung menyoal ini. Tambah pertanyaan wawancara seperti berikut ini: Do you think your university provides enough access to digital tools and resources (e.g., databases, software)? Why or why not? [O] Observe whether the student's digital practices reflect formally taught habits or self-taught, exploratory approaches that may contain inefficiencies or gaps. (bagus) [D] Review acknowledgements, methodology sections, and appendices for evidence of whether formal tool training is referenced or implicitly absent. (bagus)	

CATATAN VALIDATOR

- Secara konstruk teori dan indikator, blueprint Abdul sudah bagus.
- Dalam aspek formulasi pertanyaan wawancara dan formulasi item atau aspek untuk sasaran observasi dan sasaran analisis dokumen, beberapa pertanyaan wawancara ada yang terlalu sulit dengan istilah teknis yang rumit (memungkinkan menyulitkan bagi partisipan untuk memahami diskursus wawancara). Beberapa pertanyaan wawancara ada yang missing jika dirujuk kembali pada aspek-aspek detail dalam indikator. Beberapa item observasi masih bersifat multiple-barreled (merepresentasikan lebih dari satu ide kunci dalam satu kalimat), beberapa item analisis dokumen juga masih multiple-barreled.
- Validator memberi catatan sebagai umpan balik dari kondisi dalam catatan validator nomor 2. Bagian komentar, kritik, dan saran yang validator berikan diwarnai merah. Validator juga memberikan contoh revisi pertanyaan, revisi tuturan item observasi dan analisis dokumen sesuai dengan komentar yang validator sudah sisipkan. Contoh revisi diwarnai hijau.
- Silahkan peneliti merevisi item-item yang direview seperti contoh yang validator berikan, atau silahkan peneliti bisa langsung menggunakan item-item contoh yang sudah dibuatkan oleh validator.
- Jika peneliti merevisi seperti contoh yang validator sudah buat, atau jika peneliti langsung menggunakan contoh yang validator buat, menurut validator, instrument ini sudah valid secara konten, dan sudah bisa dilanjutkan untuk pengambilan data.
- Bagaimanapun juga, sebagai catatan tambahan, karena ini adalah penelitian kualitatif, dan sangat berkemungkinan kondisi di lapangan Ketika ambil data akan berubah, maka idealnya peneliti selalu siap untuk mempersiapkan pertanyaan-pertanyaan tambah agar bisa mengikuti alur data berbasis realita nanti.

Curup, 05 Mei 2026

Validator



Ruly Morganna, M.Pd

APPENDIX 4 DATA INTERVIEW

Transkrip Wawancara DFH 25 Mei 2026 13.32

Researcher: Which digital tools or platforms do you use during your thesis writing? How do you operate them to support specific academic tasks, such as searching for sources, writing, referencing, or checking originality?

DFH: Most of the tools I use are AI, artificial intelligence, especially generative AI. Specifically, I use ChatGPT, DeepSeek, Gemini, and Claude. Another tool I use for looking up journals or references is Publish or Perish. For website databases, I use Taylor & Francis, Elsevier, or other journals to find references.

Researcher: How do you manage your digital files, references, and thesis drafts across different devices or platforms?

DFH: I just download the files, references, or drafts, and put them into a folder on my own laptop. I organize it myself.

Researcher: So you didn't use like Google Drive or anything like that?

DFH: I use Google Drive mostly just for my questionnaires.

Researcher: Do you use reference management tools like Mendeley or Zotero?

DFH: To be honest, I don't use them. I never have.

Researcher: What about academic integrity tools, such as Turnitin? Do you use that?

DFH: I've heard about it, but I never use it.

Researcher: When you encounter a technical problem while using digital tools like ChatGPT, how do you usually solve them?

DFH: With generative AI like ChatGPT or Claude, if I have a problem, I just write a better, more complex, and detailed prompt so the AI can understand what I actually mean.

Researcher: How do you determine whether a digital source is credible and academically appropriate for your thesis?

DFH: I use websites like SCImago to check if the journal is credible, whether it is Q1, Q2, or Q3. I also use Taylor & Francis or Elsevier because they are credible and already indexed in Scopus.

Researcher: What search strategies do you use in academic databases? Do you apply filters?

DFH: I use advanced features. If there are filters, I use them in detail. For example, Taylor & Francis has advanced filters where I type all the specifications.

Researcher: How do you synthesize information from multiple digital sources when constructing your literary review?

DFH: I download all the journals or articles. Then, I put them into generative AI, especially Claude and DeepSeek, and I synthesize them there.

Researcher: So, you use Claude AI to synthesize the information?

DFH: Yeah. I have Claude AI and DeepSeek. That's all.

Researcher: How do you ensure that you are not committing plagiarism and that you are using digital sources ethically when paraphrasing or quoting?

DFH: I use Quillbot for paraphrasing sentences. To check for AI plagiarism, I use ZeroGPT.

Researcher: When searching for sources online, how do you navigate between links, articles, and databases to find relevant information?

DFH: Usually when I download a book, I put in the word AI. Of course, I do it by using paraphrases. With paraphrases, the words are automatically different from the original so that I can avoid plagiarism. I also use Turnitin to avoid plagiarism.

Researcher: And then, how do you communicate digitally with your thesis supervisor? Which platforms do you use, and how do you maintain a professional tone?

DFH: I usually communicate using WhatsApp. If we have a problem, we use WhatsApp. For other platforms, I don't use WhatsApp.

Researcher: And then, how do you make sure your data and academic work are safe when using digital platforms?

DFH: Tentu saja, jika saya ingin menggunakan platform digital, saya menggunakan platform digital yang aman dan andal. Contohnya, saya menggunakan Google Drive. Jika saya menggunakan Google Drive, itu dijamin aman. Jadi, saya selalu menyimpannya di sana.

Researcher: Do you use AI tools in your thesis writing? How do you decide whether it is okay to use them?

DFH: Ya, saya menggunakan AI. Saya menggunakan AI untuk membantu saya merumuskan ide, atau menghasilkan konten. Menggunakan AI membantu saya membaca jurnal, artikel, atau buku, serta membantu transkripsi. Dosen saya mengizinkan selama dikutip dengan benar dan tidak digunakan untuk membuat data fiktif. AI bisa memberi saran atau feedback untuk membuat tesis saya lebih baik.

Researcher: So, how do you understand and apply the academic writing convention expected in the TBI programme?

DFH: Itu tergantung pada bagaimana naskah itu ditulis. Bagaimana font, struktur, atau gayanya. Saya selalu menyesuaikan dengan pedoman yang ada.

Researcher: So, when reading journal articles, do you notice different viewpoints or perspectives? How do these influence the way you write your thesis?

DFH: Tentu saja, saya memperhatikan berbagai sudut pandang atau perspektif dari jurnal dan artikel. Sudut pandang yang berbeda ini bisa membantu saya memutuskan mana yang terbaik untuk digunakan dalam argumen tesis saya. Saya juga menggunakan AI untuk membantu saya membandingkannya.

Researcher: Do digital platforms like Elsevier, Taylor & Francis, make you feel part of an academic community? How does this influence your thesis work?

DFH: Tentu saja. Saya menggunakan Elsevier, Taylor & Francis. Yang membuat saya merasa menjadi bagian dari komunitas akademik adalah banyak orang dari seluruh dunia menggunakan platform digital ini untuk membantu tesis mereka. Ini sangat memengaruhi pekerjaan tesis saya karena referensi, artikel, dan jurnal semuanya berbasis pada platform digital.

Researcher: Have you ever interacted with others in academic digital platforms?

DFH: Saya tidak pernah berinteraksi dengan orang lain di platform digital tersebut. Jika ada masalah, saya akan langsung menemui pembimbing saya. Saya jarang melakukan interaksi online seperti itu.

Researcher: Looking back at the beginning of your thesis process, how has your ability to use digital academic tools changed?

DFH: Dari awal, sudah ada perubahan. Sekarang, saya lebih paham bagaimana menggunakan platform digital dengan baik. Bagaimana menemukan referensi yang bagus, cara menggunakan filter pencarian. Tentu ada peningkatan. Saya juga bisa lebih selektif dalam memilih platform digital yang tepat dan kredibel untuk tesis saya.

Researcher: What differences do you notice in how you use digital tools at the beginning, middle, and final stages of your thesis?

DFH: Di awal, saya belum terbiasa dan menggunakan platform digital yang tidak terstruktur. Tapi seiring berjalannya waktu, saya lebih terbiasa. Sekarang saya merasa menggunakan platform digital membuat pekerjaan saya lebih baik, saya lebih selektif, dan bisa menggunakannya dengan efektif.

Researcher: Have you independently taught yourself a new digital tool or skill specifically to support your thesis writing? What prompted this? And how did you go about it?

DFH: Ya, saya telah mempelajari platform digital secara mandiri. Tanpa platform digital, tesis saya tidak akan berjalan lancar atau menjadi lebih baik. Hal ini mendorong saya untuk belajar. Tujuannya agar penulisan tesis saya cepat selesai, hasilnya lebih baik, dan menghemat waktu.

Researcher: Do you reflect on your own digital literacy practises? What areas do you feel you still need to develop?

DFH: Ya, saya merefleksikannya. Saya rasa saya masih perlu terus meningkatkan dan mengembangkan keterampilan literasi digital saya agar lebih baik ke depannya.

Researcher: Before starting your thesis, were you aware of any digital tools specifically used for academic writing or research?

DFH: Saya pernah mendengar beberapa alat digital yang khusus digunakan untuk membantu penelitian. Saya juga tahu tentang Zotero dan Mendeley, serta alat AI seperti ChatGPT.

Researcher: Do you often need help from others when using academic databases or referencing tools? In what situation?

DFH: Saya jarang meminta bantuan orang lain saat menggunakan database akademik atau alat referensi. Saya lebih suka melakukannya secara mandiri karena saya cukup percaya diri dengan kemampuan saya sendiri.

Researcher: So, which digital tasks related to your thesis, like searching for sources, using databases, or managing references, do you find that is most difficult and why?

DFH: Menurut saya, hal yang paling sulit adalah mencari sumber dan mengelola datanya. Ada banyak sekali artikel dan buku yang perlu kita cari dan pahami semuanya untuk melihat di mana letak kesenjangan penelitian (research gap)-nya.

Researcher: Which digital tools can you use independently in your thesis work? Which ones do you still need help with?

DFH: Saya menggunakan AI generatif seperti ChatGPT, DeepSeek secara mandiri. Saya juga sangat mengandalkan Publish or Perish karena alat itu otomatis mencari informasi dari Scopus, Google Scholar, dll. Alat-alat ini sangat membantu saya mencari referensi dan memahami isinya tanpa perlu bantuan orang lain.

Researcher: How do you usually cite digital sources in your thesis? How do you make sure that your citations are correct?

DFH: Saya sering menggunakan AI untuk membantu menyusun sitasi sesuai format (misalnya gaya APA). Setelah AI membuatnya, saya akan mengecek kembali DOI, tautan, nama artikel, dan nama penulisnya untuk memastikan semuanya akurat.

Researcher: How do you use advanced search features? Like filters, when searching for sources. Can you give me an example?

DFH: Saat menggunakan fitur pencarian advanced, saya mengetik kata kunci secara detail beserta filter spesifik. Jika saya mengetiknya secara detail, cakupan hasilnya akan lebih sempit dan sangat relevan dengan apa yang saya butuhkan.

Researcher: What do you understand about plagiarism or ethical use of sources? Are there any parts you still feel unsure about?

DFH: Plagiarisme adalah hal yang sangat buruk dalam akademik. Saya selalu berusaha mencari sumber yang kredibel dan menggunakannya secara etis dengan mencantumkan sitasi. Namun, terkadang saya masih sedikit khawatir atau tidak yakin tentang batasan plagiarisme yang tidak disengaja.

Researcher: When a technical problem arises in a database that you use like Taylor & Francis or Publish or Perish, what steps do you take to resolve it?

DFH: Jika ada error atau akses dibatasi, saya biasanya mencoba menggunakan VPN atau mengganti browser dari Chrome ke Opera. Jika ada masalah teknis lain, saya mencari solusinya di forum online atau menonton tutorial di YouTube.

Researcher: How do you organise your digital workflow? For example, how do you manage references, drafts, and notes across different stages of writing?

DFH: Saya mengelola referensi dengan menyimpannya dalam format PDF atau di dokumen Word. Saya membuat struktur folder yang rapi di laptop saya dan juga mencadangkannya di Google Drive. Saya juga menggunakan AI generatif seperti Claude untuk mengatur catatan dan ide jurnal saya.

Researcher: Do you use more than one digital tool together when working on your thesis? How do you combine them?

DFH: Ya, pasti. Saya menggabungkan penggunaan Publish or Perish untuk mencari jurnal dengan kutipan terbanyak. Kemudian saya mencari versi PDF-nya dari Elsevier, Taylor & Francis, atau jurnal Sinta. Setelah itu, saya menggunakan AI Generatif untuk menganalisis dan membandingkan poin-poin penting, lalu saya menuliskannya di draf Word saya secara manual.

Researcher: Do you integrate several digital tools together, such as Google Scholar, Mendeley, or Turnitin, in a coordinated workflow? How do these complement each other?

DFH: Ya. Saya mengawali dengan Publish or Perish untuk mencari artikel populer. Kemudian mengakses database seperti Elsevier. Saya menggunakan Claude atau AI lainnya untuk membantu menyintesis data. Mereka sangat saling melengkapi dalam satu alur kerja: pencarian sumber, sintesis, dan penyuntingan naskah.

Researcher: How do you evaluate the quality of a source? Can you give me an example?

DFH: Saya melihat jumlah kutipan di Google Scholar, lalu memeriksa reputasi jurnalnya apakah masuk Q1, Q2, Sinta, atau Scopus. Contohnya, jika artikel dari Elsevier ditulis oleh peneliti yang jelas afiliasinya dan memiliki lebih dari 100 kutipan, saya anggap itu sangat kredibel.

Researcher: So, how do you decide which digital tools or strategies are best to use in different stages of your thesis?

DFH: Di awal pencarian topik, saya menggunakan Publish or Perish untuk melihat tren. Di pertengahan, saya menggunakan Elsevier dan AI seperti Claude untuk merumuskan teori dari literatur. Pada tahap akhir, saya fokus pada Word untuk pengeditan. Keputusan ini didasarkan pada fase: eksplorasi, analisis, atau finalisasi.

Researcher: Are there any academic tools or databases that you cannot access because of limited subscription or institutional access? How does this affect your thesis work?

DFH: Ya, ada beberapa artikel di Elsevier yang aksesnya terbatas karena kampus tidak berlangganan. Saya biasanya mencoba mencari alternatif dengan meminta langsung kepada penulisnya melalui ResearchGate, meskipun terkadang sulit mendapatkan respons.

Researcher: Have you ever struggled to distinguish a peer-reviewed article from a non-scholarly or commercially motivated source? How do you handle this?

DFH: Kadang saya menemukan artikel di Academia.edu yang tidak memiliki label jurnal resmi. Untuk menanganinya, saya selalu melakukan pengecekan silang di database seperti Scopus atau Sinta untuk memastikan artikel tersebut kredibel dan melalui peer-review.

Researcher: Do you feel your thesis supervisor provides adequate guidance on the use of digital academic tools? In what ways?

DFH: Pembimbing saya lebih berfokus pada substansi isi tesis, jadi bimbingan spesifik tentang alat digital tidak terlalu banyak. Saya lebih banyak belajar secara mandiri tentang cara menggunakan AI dan software melalui tutorial di YouTube atau forum diskusi di internet.

Researcher: Do you think your university provides enough access to digital tools and resources? Why or why not?

DFH: Menurut saya belum cukup. Saat saya mencoba mengakses database premium seperti Taylor & Francis atau Elsevier, tidak ada akses institusional yang tersedia. Seharusnya kampus perlu berlangganan lebih banyak database akademik untuk membantu mahasiswa yang kesulitan dengan biaya akses jurnal berbayar.

Researcher: Oke, terimakasih Dwiki.

Transkrip Wawancara FA 25 Mei 2026 15.29

Researcher: Which digital tools or platforms do you use during your thesis writing? How do you operate them to support specific academic tasks, such as searching for sources, writing, referencing, or checking originality?

FA: Dari awal. Saya menggunakan alat seperti Google Scholar, setelah itu Microsoft Word, ChatGPT, dan juga Semantic Scholar.

Researcher: How do you manage your digital files, references, and thesis drafts across different devices or platforms?

FA: Untuk pengelolaan file, biasanya saya menyimpan file tersebut, yang pertama di Google, memiliki salinan konten itu saja di laptop, yang lainnya di flash disk, serta beberapa salinan lainnya.

Researcher: Do you use reference management tools like Mendeley or Zotero?

FA: Kalau selama ini, saya belum menggunakan Mendeley atau Zotero untuk manajemennya.

Researcher: What about academic integrity tools, such as Turnitin? Do you use that?

FA: Kalau untuk penggunaan Turnitin, untuk saat ini saya belum menggunakannya. Tetapi Turnitin akan digunakan saat setelah bab 1 sampai bab 4 nanti selesai.

Researcher: When you encounter technical problems while using digital tools, how do you usually solve them? What technical difficulties have you experienced during your thesis writing?

FA: Biasanya masalah teknis yang sering terjadi, biasanya yang sering terjadi itu adalah jaringan tersebut sangat jelek. Di saat jaringan tersebut menjadi jelek, saya biasanya beralih jaringan. Saya menggunakan 2 kartu SIM. Di saat 1 kartu SIM mengalami masalah jaringan, saya berganti ke 1 SIM lainnya.

Researcher: How do you determine whether a digital source is credible and academically appropriate for your thesis?

FA: Untuk menilai kredibilitas sumber jurnal atau artikel yang saya gunakan, sebelum saya menggunakannya, saya biasanya mengecek terlebih dahulu. Mengecek kredibilitas, jika itu Scopus, saya biasanya mengeceknya di SCImago. Kalau untuk Sinta, kita bisa langsung memeriksa di Sinta Indonesia.

Researcher: What search strategies do you use in academic databases? Do you apply filters or limit results by date?

FA: Strategi pencarian, misal menggunakan tahun, fitur yang paling sering digunakan. Misalnya dibatasi berapa tahun? Kalau untuk penggunaan tahun, untuk referensi, biasanya saya mengambil di 5-6 tahun terakhir.

Researcher: How do you synthesize information from multiple digital sources when constructing your literature review?

FA: Pertama, saya akan baca dulu artikel tersebut apakah relevan dengan judul atau dengan penelitian saya. Setelah itu, saya bisa memasukkan artikel yang sudah saya ambil dan sudah saya baca itu ke AI untuk membuat struktur penulisan untuk saya gunakan di bab dua. Kalau AI itu yang berbasis chat seperti Claude dan ChatGPT. Setelah saya berhasil mendapatkan hasil penulisan dari AI, setelah itu saya mengubah beberapa redaksi atau beberapa kata yang digunakan oleh AI menjadi kata yang jarang atau biasanya lebih tepat digunakan untuk kata-kata akademik seperti jenis, saya ubah menjadi kategori.

Researcher: When searching for sources online, how do you navigate between links, articles, and databases to find relevant information?

FA: Untuk itu, saya biasanya mencari referensi tersebut di beberapa platform terlebih dahulu. Kalau untuk jurnal yang internasional, biasanya itu saya periksa di Google Scholar, Semantic Scholar, serta di Taylor & Francis.

Researcher: How do you ensure that you are not committing plagiarism and that you are using digital sources ethically when paraphrasing or quoting?

FA: Untuk melindungi diri dari pelanggaran plagiarisme, pertama saya akan copy-paste terlebih dahulu mengenai apa yang akan saya tulis di bab 2. Setelah itu, saya baca kembali, dan saya merubah redaksi penulisan tetapi dengan tujuan dan makna yang sama. Yang dirubah itu adalah kata-kata.

Researcher: How do you communicate digitally with your thesis supervisor? Which platforms do you use, and how do you maintain a professional tone?

FA: Saya selalu menggunakan WhatsApp.

Researcher: How do you make sure your data and academic work are safe when using digital platforms?

FA: Untuk penyimpanan itu, biasanya saya simpan di Google Drive. Di Google Drive itu sendiri, yang bisa mengakses file tersebut adalah kita. Selagi kita tidak memberikan link atau tidak memberikan akses link kepada orang lain. Serta untuk keamanannya, bisa kita gunakan flash disk ataupun hape sebagai alat cadangan.

Researcher: Do you use AI tools in your thesis writing? How do you decide whether it is okay to use them?

FA: Untuk penggunaan AI, biasanya saya menggunakan ChatGPT dan juga DeepSeek. Penggunaan ChatGPT sendiri, saya menggunakan untuk menyusun ide. Atau terkadang saat saya sedang menyusun, saya menggunakan untuk parafrase. Tapi tidak untuk menulis secara langsung.

Researcher: How do you understand and apply the academic writing conventions expected in the TBI programme?

FA: Atau untuk pengalaman dan penerapan struktur penulisan akademik? Sebenarnya untuk struktur penulisan akademik di TBI itu bisa berbeda-beda. Karena saya telah membaca beberapa tesis dari senior yang sudah menjadi alumni, untuk penyusunan struktur di dalamnya itu ada yang sama, ada yang tidak. Contoh-contoh di Bab 2, di bagian Research on Related Findings, beberapa ada yang langsung menuliskan 5 penemuan dari 5 atau lebih dari penelitian sebelumnya. Ada juga yang menggunakan tabel untuk membuat kriteria jenis penelitian ini terfokus kemana dan perbandingannya ke penelitian lain.

Researcher: When reading journal articles, do you notice different viewpoints or perspectives? How do these influence the way you write your thesis?

FA: Perbedaan sudut pandang dalam penulisan jurnal atau artikel dalam penulisan akademik sangat sering sekali kita menemukan sudut pandang yang berbeda. Karena di setiap penelitian itu, mereka memiliki fokus atau goal yang berbeda. Mereka memiliki aspek-aspek yang berbeda. Ini sangat membantu untuk menyusun argumen yang seimbang di dalam skripsi. Karena kita bisa mencari berbagai perbedaan dari setiap penelitian yang sudah ada, jadi kita bisa menemukan juga celah atau perbedaan penelitian kita di antara penelitian sebelumnya.

Researcher: Do digital platforms like ResearchGate, [Academia.edu](https://www.academia.edu/), or Semantic Scholar make you feel part of an academic community? How does this influence your thesis work?

FA: Sebenarnya untuk penggunaan platform seperti Semantic Scholar, Google Scholar dan lainnya, itu sebenarnya agak kurang terhubung secara profesional. Kalau itu sendiri, karena kita sangat mudah mendapatkan akses dan juga ada beberapa yang gratis, karena profesionalitas itu kita bisa melihat dari seberapa besar modal yang kita keluarkan untuk melakukan sebuah penelitian.

Researcher: Have you ever interacted with others in academic digital platforms? What was your experience?

FA: Kalau untuk interaksi, saya belum pernah interaksi ke siapapun.

Researcher: Looking back at the beginning of your thesis process, how has your ability to use digital academic tools changed?

FA: Perubahan kemampuan untuk penggunaan alat digital. Kalau untuk perubahan penggunaan alat digital itu sendiri, saya merasa ada beberapa perkembangan. Contohnya di saat penggunaan AI. Di saat penggunaan AI dulu, di awal-awal saya hanya menerapkan prompt-prompt yang basic saja. Tapi setelah semakin saya perdalami lagi, semakin saya baca lagi, ternyata untuk penggunaan AI kita tidak bisa untuk menggunakan prompt-prompt atau perintah yang sangat basic. Makanya kita perlu menuliskan detailnya juga sebelum kita melakukan atau kita menggunakan AI tersebut.

Researcher: What differences do you notice in how you use digital tools at the beginning, middle, and final stages of your thesis?

FA: Kalau perbedaan penggunaan awal itu, kalau di awal penulisan, biasanya kita fokus untuk mencari alat yang ingin kita gunakan terlebih dahulu. Alat apa yang paling sesuai dengan kita. Saat di tengah, di tengah-tengah penulisan skripsi, biasanya kita sudah aktif menggunakan AI tersebut. Nah, di saat akhir penulisan skripsi, otomatis di akhir penulisan skripsi itu kita sudah terbiasa menggunakan alat-alat yang sudah ditentukan untuk kita gunakan.

Researcher: Have you independently taught yourself a new digital tool or skill specifically to support your thesis writing? What prompted this and how did you go about it?

FA: Kalau untuk pembelajaran penggunaan tools itu, biasanya saya belajar melalui penjelasan platform dari TikTok. Yang membuat saya terdorong untuk belajar bagaimana menggunakan tools itu, karena alat-alat ini sangat penting untuk membantu kita dalam penggunaan skripsi. Jika kita sendiri tidak memahami bagaimana cara menggunakannya, bagaimana kita bisa mengerjakan skripsi kita dengan mulus.

Researcher: Do you reflect on your own digital literacy practices? What areas do you feel you still need to develop?

FA: Kalau untuk refleksi dalam penggunaan AI tools, itu masih perlu belajar untuk manajemen data besar dalam penggunaan AI tersebut. Data besar ini sendiri bisa dibilang sebagai semua data yang ada di AI, kita harus menjaga itu terlebih dahulu. Karena sangat sulit untuk menjaga atau mengontrol hal tersebut, karena tidak semua referensi yang diberikan AI itu adalah referensi real. Karena AI terkadang memberikan referensi-referensi palsu yang tidak terdaftar.

Researcher: Before starting your thesis, were you aware of any digital tools specifically used for academic writing or research?

FA: Tools yang saya sudah mengetahui sebelum menulis skripsi, itu yang pertama adalah Google Scholar. Google Scholar itu adalah tempat di mana website, di mana kita bisa mencari referensi dengan website dan juga referensi gratis berada di sana. Selain itu, ada juga AI, alat-alat AI untuk membantu kita untuk membuat atau menyusun ide, yaitu berupa jenis ini.

Researcher: Could you name any digital tools specifically designed for academic research or reference management?

FA: Oh, alat untuk membuat referensi. Alat-alat referensi yang saya sudah mengetahui itu adalah Mendeley dan Zotero. Untuk penelitian akademik. Untuk penelitian akademik, biasanya saya menggunakan Semantic Scholar, karena itu lebih berkaitan terhadap bidang linguistik yang sedang saya lakukan.

Researcher: Do you often need help from others when using academic databases or referencing tools? In what situations?

FA: Saat menggunakan database atau referensi tool, untuk saat ini, saya sendiri belum pernah menggunakannya. Mungkin saya akan butuh seseorang untuk mengajarkan saya bagaimana cara menggunakannya.

Researcher: How about academic databases like Semantic Scholar?

FA: Kalau untuk akademik databases dan Semantic Scholar, saya tidak perlu orang atau tidak perlu teman untuk membantu saya menjelaskan bagaimana cara menggunakannya. Karena penggunaan Semantic Scholar dan Google Scholar itu salah satu databases yang sangat mudah untuk digunakan.

Researcher: Which digital tasks related to your thesis, like searching for sources, using databases, or managing references, do you find most difficult and why?

FA: Tugas yang paling sulit di tengah-tengah penyelesaian skripsi ini adalah mencari artikel yang relevan dan real, serta bisa diakses dengan mudah. Karena saat kita mencari referensi pada AI, tidak semua referensi yang dia berikan adalah referensi yang real, seperti yang saya katakan sebelumnya. Terkadang juga ada yang berbayar gitu kan.

Researcher: Which digital tools can you use independently in your thesis work? Which ones do you still need help with? What tasks do you usually perform with them?

FA: Tugas-tugas mandiri yang saya gunakan yaitu berupa Google Scholar. Google Scholar mungkin mandiri juga karena saya sudah pernah melihat orang menggunakannya. Dan soal yang tugas yang masih memerlukan bantuan, kemungkinan nanti berupa SPSS. Tetapi saya tidak menggunakan SPSS, karena penelitian saya adalah penelitian kualitatif.

Researcher: How do you usually cite digital sources in your thesis? How do you make sure your citations are correct?

FA: Kalau untuk mencari citasi dengan benar itu, biasanya saya menggunakan dua metode, atau mengerjakan di tiga website yang sudah kredibel. Yang pertama itu ada di Taylor & Francis, yang kedua di Semantic Scholar, dan yang ketiga yang paling umum digunakan adalah Google Scholar.

Researcher: How do you use advanced search features, such as filters or Boolean operators, when searching for sources? Can you give an example?

FA: Kalau pencarian advanced itu biasanya saya menggunakan, menambahkan nama penulis, nama jurnal publisher, serta filter tahun, dimana rentah tahun yang saya butuhkan.

Researcher: What do you understand about plagiarism or ethical use of sources? Are there any parts you still feel unsure about?

FA: Kalau soal plagiarisme, penyalinan serta kutipan itu adalah plagiarisme. Kita hanya menyalin semuanya tanpa kita mencari informasi dari mana asal kita mengambil informasi tersebut, itu adalah plagiarisme. Yang masih membingungkan adalah batas parafrase. Batas parafrase itu sebenarnya agak rumit untuk dimengerti, karena saat kita memparafrase informasi yang kita dapatkan, isinya bisa saja berubah saat kita memparafrase informasi tersebut.

Researcher: When a technical problem arises in Mendeley, a database, or Turnitin, what steps do you take to resolve it?

FA: Kalau masalah teknis sendiri, masalah teknis itu yang selalu terjadi adalah masalah koneksi, masalah internet.

Researcher: How do you organise your digital workflow? For example, how do you manage references, drafts, and notes across different stages of writing?

FA: Kalau untuk mengatur alur kerja digital, saya membuat folder-folder khusus untuk setiap bagian. Contohnya, folder untuk literatur review, folder draft, folder revisi, dan folder final itu berbeda.

Researcher: Do you use more than one digital tool together when working on your thesis? How do you combine them?

FA: Kalau untuk pengombinasian tools, tentu saya menggunakannya. Pertama, masalah untuk artikel. Biasanya saya minta artikel ke AI terlebih dahulu. Setelah mendapatkan data artikel tersebut, saya memeriksa apakah artikel itu benar-benar ada atau tidak di Google Scholar, Semantic Scholar, ataupun Taylor & Francis. Setelah memastikan bahwa artikel tersebut nyata, artikel tersebut ada dan kredibel, sudah dipublikasi oleh jurnal yang terindeks Scopus, setelah itu saya memasukkannya ke AI untuk menganalisis apa poin utama yang ada di dalam artikel tersebut. Setelah itu, saya menyimpulkan sendiri kesimpulan dari artikel, kesimpulan yang diberikan AI, saya simpulkan lagi, setelah itu baru saya buat ke word.

Researcher: Do you integrate several digital tools together, such as Google Scholar, Mendeley, Grammarly, or Turnitin, in a coordinated workflow? How do these complement each other?

FA: Kalau untuk penggunaan beberapa AI tools yang terlihat koordinatif, itu saya menggunakan ChatGPT, Claude AI, Google Scholar, Semantic Scholar, dan Taylor & Francis. Semua ini saling melengkapi, dikarenakan kita pasti meminta sumber atau referensi ke AI terlebih dahulu, setelah itu baru kita bisa memeriksa di tiga website, database.

Researcher: How do you evaluate the quality of a source, such as author credibility, possible bias, and point of view? Can you give an example?

FA: Kalau untuk evaluasi kualitas sumber, misal kita menemukan artikel tanpa nama penulis, tidak ada afiliasi ke jurnal tertentu, itu langsung tidak saya gunakan. Tetapi jika ada sumber yang mencantumkan nama penulis, nama publisher, maka kita bisa memeriksa terlebih dahulu. Kalau untuk Scopus, kita bisa memeriksa kredibilitas jurnalnya di SCImago, dan jika jurnal tersebut diterbitkan di Sinta Indonesia, kita bisa memeriksa di Sinta Indonesia, apakah jurnal tersebut memang ada dan terdaftar.

Researcher: How do you decide which digital tools or strategies are best to use in different stages of your thesis?

FA: [No response recorded]

Researcher: What technical difficulties have you experienced during your thesis writing, such as internet problems, device issues, or software access? How do these affect your work?

FA: Artikel yang ingin kita gunakan itu tidak open access. Sangat berpengaruh, karena biasanya artikel atau jurnal yang tidak membuat atau tidak mengizinkan open access, itu biasanya jurnal yang kredibel dan jurnal yang pasti bisa kita gunakan sebagai referensi kita.

Researcher: Have you ever lost work or experienced data errors during your thesis process? How did you respond?

FA: Sesuai mungkin dengan apa yang ingin kita suruh AI terlakukan.

Researcher: Are there any academic tools or databases that you cannot access because of limited subscription or institutional access? How does this affect your thesis work?

FA: Beberapa artikel itu biasanya berbayar dan tidak bisa diakses. Salah satu solusinya adalah penggunaan Sci-Hub dimana kita bisa meng-copy paste DOI dari artikel yang tidak bisa open access tersebut. Kalau penggunaan Sci-Hub sendiri terkadang itu 50-50. Ada beberapa artikel yang bisa diaksesnya setelah kita meng-copy paste DOI-nya dan ada juga yang tidak bisa diakses oleh Sci-Hub tersebut.

Researcher: Have you ever struggled to distinguish a peer-reviewed article from a non-scholarly or commercially motivated source? How do you handle this?

FA: Kalau menganalisisan peer-review itu sendiri bisa kita periksa di daftar pustaka terlebih dahulu. Setelah itu baru kita lihat indeks dari jurnal tempat publiknya artikel tersebut. Setelah itu baru kita masukkan ke ChatGPT untuk dianalisis lagi.

Researcher: How do you manage the volume of results returned by a database search? What strategies help you identify the most relevant sources?

FA: Kalau untuk mengelola jumlah dari hasil pencarian itu kita bisa menggunakan filter, pertama filter penulis, kedua filter penelitiannya, berikutnya itu filter tahun sebelumnya artikel yang ingin kita gunakan.

Researcher: Have you experienced difficulties with citation formatting or inadvertently encountered an academic integrity issue? What happened and how did you resolve it?

FA: Jika kita mencari lagi sumber tersebut, maka sumber tersebut tidak akan bisa ditemukan. Salah satu caranya adalah kita bisa ke pencarian ilmu Google terlebih dahulu untuk mencari dan mengoreksi penulisan kita. Karena Google memiliki fitur auto-correct.

Researcher: Do you find it challenging to paraphrase academic sources without reproducing their exact wording? What strategies do you use?

FA: Untuk tantangan memparafrase ini adalah penggunaan kata pengganti yang tepat. Penggunaan kata pengganti yang tepat itu terkadang bisa merusak susunan kalimat yang sudah dibuat. Tapi jika solusi yang saya gunakan adalah, jika saya sudah tidak bisa lagi untuk memparafrase itu secara manual, maka saya menggunakan AI.

Researcher: Do you find it difficult to combine ideas from different sources into one clear argument? Can you explain?

FA: Jika penelitian-penelitian sebelumnya memiliki sudut pandang atau tujuan penelitian yang sama, tetapi ada beberapa aspek yang berbeda, kita bisa dengan mudah mengkombinasikan ide tersebut menjadi satu ide besar. Dengan mengesampingkan detail-detail kecil yang ada di dalam artikel atau penelitian tersebut. Caranya adalah kita bisa membuat tabel perbandingan dan mencari perbedaan dan mengelompokkan penelitian tersebut ranah dan tujuannya apa.

Researcher: How confident do you feel when using digital academic tools for your thesis? Are there specific tools or tasks that cause anxiety or reluctance?

FA: Kalau untuk penggunaan alat-alat digital, untuk tingkat percaya diri, sebenarnya banyak keraguan saat menggunakan alat-alat AI, apalagi penggunaan AI yang kita gunakan untuk membantu menuliskan tesis kita. Karena terkadang AI itu memberikan sumber atau menulis sesuatu yang tidak jelas dan tidak berkaitan dengan tesis kita sama sekali.

Researcher: Have you ever felt overwhelmed or discouraged by digital tools during the thesis process? How did this affect your progress and motivation?

FA: Kalau untuk kelelahan penggunaan alat-alat digital itu biasanya sering terjadi, apalagi di penggunaan AI. Karena yang pertama, jika kita tidak memiliki AI premium, maka kita hanya mendapatkan batasan atau limit set, limit perintah yang bisa kita berikan selama beberapa jam atau selama satu hari. Biasanya ini mempengaruhi progres selama penulisan, karena bisa memperlambat penulisan.

Researcher: Do you use AI tools in your thesis writing? How do you decide whether it is okay to use them?

FA: Kalau kegunaan AI itu sendiri, seperti yang saya bilang sebelumnya, kalau untuk brainstorming ataupun penyusunan ide, kita bisa menggunakan ChatGPT. Kalau untuk penulisan, kita bisa menggunakan Claude, tapi tidak 100% kita ambil dari Claude. Setelah kita mendapatkan tulisan dari Claude AI, kita bisa memparafrasanya sendiri dengan bahasa kita yang bisa kita ubah menjadi bahasa akademik.

Researcher: Are you worried about making mistakes in citation or plagiarism? How does this affect the way you write your thesis?

FA: Kalau untuk khawatiran sendiri, ke arah plagiarisme, karena walaupun kita sudah melakukan parafrase terhadap kalimat maupun paragraf yang sudah kita buat sebelumnya untuk plagiarisme itu bisa terdeteksi walaupun ada satu kata yang sama, itu bisa terhitung sebagai plagiarisme. Kalau untuk latihan formal, sebenarnya tidak karena seperti untuk penggunaan Mendeley sendiri itu lebih ke penjelasan singkat dari dosen bukan pelatihan yang terfokus untuk membahas Mendeley tersebut.

Researcher: Did you receive any formal training on how to use academic tools such as Mendeley, Turnitin, or academic databases? What did you learn?

FA: Kalau untuk latihan formal, sebenarnya tidak karena seperti untuk penggunaan Mendeley sendiri itu lebih ke penjelasan singkat dari dosen bukan pelatihan yang terfokus untuk membahas Mendeley tersebut.

Researcher: What form of support or training would have been most beneficial to you at the beginning of your thesis writing journey?

FA: Kalau untuk bimbingan sendiri tidak ada. Kalau untuk dukungan penulisan skripsi itu biasanya terdapat di dosen pembimbing sendiri karena dosen pembimbing itu tugasnya adalah membimbing kita dan juga mengarahkan kita bagaimana cara menulis skripsi dengan baik.

Researcher: Do you feel your thesis supervisor provides adequate guidance on the use of digital academic tools? In what ways?

FA: Kalau untuk bimbingan dari dosen untuk penggunaan AI sih kurang kalau selama bimbingan skripsi itu kurang tetapi jika dari jalan selat beliau mengampu mata kuliah itu terkadang beliau memberikan penjelasan atau memberikan sedikit overview terhadap AI atau alat-alat digital yang berguna dan bisa membantu menulis skripsi.

Researcher: How did you learn to use the digital tools you currently rely on for your thesis?

FA: Kalau untuk belajar di alat-alat digital sendiri saya itu belajar secara mandiri dengan cara menonton video di Youtube dan juga beberapa video dari platform Tiktok.

Researcher: Do you think your university provides enough access to digital tools and resources? Why or why not?

FA: Kalau untuk akses alat-alat digital dari kampus sendiri itu kurang, bisa dibilang hampir tidak ada, karena di kampus ini sendiri untuk akses internetnya soalnya masih ada kendala.

Researcher: Oke, Thanks Fahmi.

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Researcher: Oke, alat atau platform digital apa yang Anda gunakan selama penulisan skripsi dan bagaimana cara mengoperasikannya untuk mendukung tugas akademik tertentu?

NAN: Kalau untuk alat atau platform digital itu, keseringan aku pakai Google Scholar. Kalau Google Scholar itu untuk mencari-cari jurnal yang memang sesuai kayak judul. Terus, aku juga pakai ChatGPT, Gemini AI, terus DeepSeek, dan itu apa lagi ya, Claude AI untuk nyari-nyari. Ibaratnya itu nyari-nyari informasi lebih dari judul aku, dari bab 1, bab 2, atau bab 3 ke depannya itu bakal kayak gimana begitu.

Researcher: Oke, lalu bagaimana Anda mengelola file digital referensi dan draft skripsi Anda di berbagai perangkat atau platform?

NAN: Kalau untuk itu sendiri sih, kalau itu biasanya untuk folder atau folder-foldernya itu ada folder khusus. Misalnya folder untuk teori-teori, terus jurnal-jurnal, lain lagi. Terus untuk referensi-referensi skripsi itu juga lain, kayak gitu sih. Aku baru sampai nomor 3 soalnya. Lanjut ya.

Researcher: Apakah Anda menggunakan alat manajemen referensi seperti Mendeley atau Zotero?

NAN: Kalau untuk Mendeley dan Zotero itu, aku sendiri itu untuk Zotero aku download, cuma tidak bisa cara pakainya, jadi tidak pakai itu. Terus kalau untuk Mendeley tidak pakai sama sekali sih. Biasanya kalau untuk, bukan data referensi, kayak daftar pustaka gitu kan, aku biasanya minta tolong ke ChatGPT atau AI lainnya.

Researcher: Kalau begitu, apakah Anda menggunakan alat integritas akademik seperti Turnitin?

NAN: Kalau untuk Turnitin, belum sih, belum pakai. Mungkin kadang-kadang juga, mungkin untuk latar belakang. Kalau untuk latar belakang, daftar pustaka itu dari ChatGPT itu lah, kadang itu dari Quillbot.

Researcher: Misal nih, misal Nesa mengalami masalah teknis saat memakai alat-alat digital kayak ChatGPT atau DeepSeek yang pernah dipakai kan, bagaimana menyelesaikannya?

NAN: Kalau untuk masalah itu sendiri itu, kan ada banyak AI yang dipakai itu. Ada DeepSeek, ada ChatGPT, ada Claude AI, terus ada lagi Gemini. Jadi itu gantian-gantian saja sih. Kalau misal ChatGPT-nya satu jam kemudian baru bisa dipakai lagi, berarti memakai Claude AI. Kalau DeepSeek ini bisa dipakai pakai Gemini.

Researcher: Bagaimana Anda menentukan apakah suatu sumber digital itu kredibel atau sesuai secara akademik dengan skripsinya?

NAN: Kalau saya sendiri itu sih cari yang jurnal yang ini sih, jurnal yang tahunnya terbit 2024, 2025, 2023 kayak gitu.

Researcher: Tahun-tahun baru ya? Terus kalau untuk kredibel atau tidaknya itu tidak sih, tidak nyari juga. Tidak nyari pakai Scopus ini?

NAN: Tidak, tidak nyari.

Researcher: Misal buka Google Scholar kan, apa strategi pencarian yang digunakan?

NAN: Cari intinya saja, misalnya judulnya ini kan strategi penulisan akademik. Jadi aku tuh biasanya nyari strategi penulisan akademiknya dulu, dan itu baru strategi penulisan akademik dan skripsi, kayak gitu sih.

Researcher: Lebih ke bertahap-tahapnya, bukan langsung ke judul full.

NAN: Aku tuh bukan kayak gitu.

Researcher: Apakah pakai filter nggak? Pakai filter bisa dibatasi tanggal berapa sampai berapa?

NAN: Kalau di filter iya sih, per tahun tapi bukan per tanggal. Tahunnya dari 2020 sampai 2026.

Researcher: Misal, bagaimana Anda menyintesis informasi dari berbagai sumber digital, misal artikel atau jurnal atau buku saat menyusun tinjauan pustaka? Bagaimana Anda menyintesis informasi dari berbagai sumber digital, misalkan dari buku, jurnal, artikel, gitu. Saat menyusun tinjauan pustaka atau literature review?

NAN: Lebih ke membaca sih, atau menggunakan AI gitu. Pakai ChatGPT gitu kan. Minta tolong, ini isinya apa aja sih? Lalu apa yang bagian penting itu apa? Tapi terkadang setelah dari ChatGPT itu kan, baca lagi kayak gitu.

Researcher: Jadi suruh ChatGPT itu untuk menyimpulkan itu?

NAN: Iya, benar.

Researcher: Misalkan, apa, bagaimana Anda memastikan jika Anda itu tidak melakukan plagiarisme? Dan menggunakan seperti, bagaimana itu menyerahkan itu? Melakukan parafrase atau mengutip?

NAN: Kalau untuk itu sih, aku sendiri itu selalu mencantumkan sumber, pas ngutip bukan? Atau ngambil ide dari penulis lain, misalnya jurnal. Selain itu juga melakukan parafrase dengan kalimat sendiri.

Researcher: Misalkan mencari sumber secara online, bagaimana Anda menavigasi antar tautan, antar link, artikel, ataupun database misalkan Google Scholar untuk mencari informasi yang relevan?

NAN: Untuk pertama kalinya saya membaca abstrak dulu sih. Kalau aku sendiri itu membaca abstrak artikel, terus melihat referensi atau artikel terkait, dan menemukan sumber yang lebih sesuai.

Researcher: Masuk ke dimensi sosial emosional. Bagaimana Anda melindungi diri dari plagiarisme secara tidak sengaja dan pelanggaran integritas akademik saat Anda menulis dengan memakai sumber-sumber digital seperti artikel, jurnal, dan buku?

NAN: Kalau untuk itu sendiri, biasanya aku mencantumkan sumbernya itu, sumber yang aku gunakan, terus memastikan setiap kutipan atau ide yang diambil dari orang lain itu merupakan diberi sitasi yang sesuai.

Researcher: Bagaimana Anda berkomunikasi secara digital dengan dosen pembimbing Anda? Misal Anda menggunakan WhatsApp?

NAN: Kalau untuk WhatsApp sendiri, itu sih palingan ngabarin bisa bimbingan atau tidak. Kalau untuk mengirim file itu belum ada.

Researcher: Bagaimana Anda memastikan data dan karya akademik Anda aman saat menggunakan platform digital? Misalkan waktu Anda menyimpan file, untuk menghindari kehilangan data.

NAN: Kalau untuk itu sendiri sih, biasanya itu lebih ke kirim ke diri sendiri lewat WhatsApp, terus ke HP kan, terus bisa juga kirim ke kawan gitu loh. Memang tersimpan di laptop kan, tapi juga mengirim ke diri sendiri dan ke kawan lewat WhatsApp.

Researcher: Kalau Google Drive tidak? Apakah Anda menggunakan alat-alat AI seperti ChatGPT dalam penelitian skripsi Anda?

NAN: Tentu saja, pakai-pakai semua.

Researcher: Bagaimana Anda memastikan atau memutuskan apakah itu boleh digunakan atau tidak? Maksudnya apa? Misalkan dosen Anda nyuruh pakai AI.

NAN: Tidak. Terkadang dosen pembimbing itu juga ngasih izin buat pakai AI, tapi harus di-parafrese lagi gitu loh isinya itu. Terus misalnya dikasih kutipan-kutipan gitu kan. Terkadang ChatGPT itu juga ngasih kutipan-kutipan. Ada kata si siapa? Kata si Abdul misalnya. Kata si Abdul kalau strategi akademik itu kayak gini-kayak gini. Terus kita tuh cari lagi ke Google Scholar itu emang ada atau tidak. Terkadang-kadang aja kayak gitu loh.

Researcher: Bagaimana Anda memahami dan menerapkan peraturan penulisan akademik yang diterapkan oleh program TBI?

NAN: Lebih ke dosennya sih. Apa yang nanyain ke dosen? Belum paham penulisannya. Nanyain ke dosen ya. Terus lihat skripsinya, kating kayak gitu.

Researcher: Misal saat membaca artikel jurnal, apakah Anda melihat sudut pandang atau perspektif yang berbeda? Bagaimana hal itu mempengaruhi cara Anda menilai skripsi Anda?

NAN: Kalau kayak gitu sih aku lebih ngambil yang lebih nyambung aja lebih banyak intinya sih. Misalnya strategi akademik tadi kan. Misalnya menurut si A ada empat tuh strategi penulisan akademik. Sedangkan menurut Abdul ada dua. Dan dua. Jadi aku tuh lebih ngambil yang ke si A gitu loh.

Researcher: Apakah platform digital yang kamu pakai misalkan? Pernah nggak pakai ResearchGate gitu? Academia.edu?

NAN: Kalau saat ini belum sih.

Researcher: Pernahkah Anda berinteraksi dengan orang lain di platform digital akademik? Misalnya nanya pertanyaan, berbagi apa? Lewat WhatsApp boleh tuh?

NAN: Iya lewat WhatsApp boleh. Sering sih lewat WhatsApp ataupun lewat Instagram, Telegram itu sering.

Researcher: Lihat ke belakang waktu proses penulisan awal skripsi Anda. Bagaimana kemampuan Anda menggunakan alat digital akademik telah berubah? Apakah jadi lebih bagus atau jadi lebih buruk?

NAN: Menurut aku sendiri sih, menurut aku sendiri tuh lebih baik sih. Lebih tahu kayak gimana cara memakai ini, cara memakai ChatGPT atau Gemini gitu. Itu juga kadang tuh minta tutorial dari TikTok gitu kan. Biasanya tuh ada TikTok atau YouTube gitu. Bagaimana sih biar ChatGPT ini bisa ngasih jawaban yang baik dan jawaban yang tepat gitu loh. Kadang tuh emang berkeliwiran juga di Instagram tuh kadang ada prompt gitu loh.

Researcher: Template prompt gitu?

NAN: Iya benar.

Researcher: Oke, misalkan apa perbedaan yang Anda lihat misalkan dari dalam cara Anda menggunakan alat digital dari tahap awal penulisan skripsi, pertengahan sampai sekarang?

NAN: Kalau untuk itu sendiri sih, kalau untuk AI sendiri seperti ChatGPT atau Gemini itu udah terbiasa soalnya udah di perkuliahan tuh kan udah sering gitu loh. Tapi kayak memakai ini, kadang tuh memakai platform lain kayak Google Scholar atau seperti Zotero karena tidak bisa memakai itu kan jadinya kurang paham gitu loh.

Researcher: Oke, pernahkah Anda secara mandiri mempelajari misalkan alat-alat yang hanya menggunakan AI?

NAN: Iya, pernah-pernah. Tapi itu lewat tutorial sih, tutorial YouTube atau TikTok gitu loh.

Researcher: Oke, apa hal yang mendorong Anda mempelajari hal tersebut?

NAN: Ya karena buat apa ya, terkadang tuh membutuhkan untuk skripsi gitu kan, dibab satu tuh butuh kayak gini, kayak gini, kayak gini. Kadang tuh untuk buat daftar isi gitu loh. Kadang tuh apa ya harus nonton tutorial dulu gitu.

Researcher: Oke, apakah Anda pernah misalkan merenungkan bagaimana kemampuan literasi digital Anda dalam menggunakan alat digital? Ada apa yang masih perlu Anda kembangkan misalkan?

NAN: Mungkin terlalu bergantung dengan AI sih.

Researcher: Terlalu bergantung dengan AI, jadi perlu dibatasi.

NAN: Iya, benar.

Researcher: Oke, kita masuk RQ2. Sebelum memulai skripsi, apakah Anda mengetahui alat digital yang khusus digunakan untuk penulisan atau penelitian akademik?

NAN: Ada sih, tapi lupa.

Researcher: Lupa ya? Kayak SciSpace, terus apa lagi ya, lupa.

NAN: Iya.

Researcher: Dapatkah Anda menyebutkan alat digital yang dirancang khusus untuk penelitian akademik?

NAN: Ya, kayak SciSpace, terus... Maksudnya diam, bentar ya.

Researcher: Kalau AI juga?

NAN: Kalau AI juga sih, kalau AI. Terus kayak... kayaknya lupa deh.

Researcher: Lupa ya?

NAN: Iya.

Researcher: Lanjut ke pertanyaan 25. Apakah Anda membutuhkan bantuan orang lain saat Anda menggunakan misal Google Scholar atau Zotero gitu? Tak. Pernah tak butuh bantuan orang? Minta bantuan orang?

NAN: Pernah sih, tapi kayak jarang gitu soalnya lebih ke isi, ke isi skripsi juga.

Researcher: Lalu menurut Anda tugas digital apa yang sulit dalam skripsi Anda, misalkan mencari sumber atau menggunakan database seperti Google Scholar atau malah mengelola referensi?

NAN: Kalau dari aku sendiri sih lebih ke teori.

Researcher: Teori ya?

NAN: Iya, mencari data.

Researcher: Mencari data ya? Oke. Alat digital mana yang dapat Anda gunakan secara mandiri dalam penulisan skripsi?

NAN: Google Scholar, ChatGPT, Gemini, terus Claude AI

Researcher: Bagaimana biasanya Anda mengutip sumber digital dalam skripsi Anda? Bagaimana Anda memastikan bahwa kutipan Anda itu benar? Misalkan mengutip referensi dari Si A tadi ya? Bagaimana biar nama-nama itu benar?

NAN: Lebih ke ini sih, Google Scholar, terus ngelihat sudah diituin orang, sudah berapa banyak gitu.

Researcher: Lanjut nomor 29. Apakah Anda pernah menggunakan misalkan fitur pencarian lanjutan seperti filter, misalkan mencari sumber di Google Scholar?

NAN: Oh iya, pakai. Tapi lebih sering langsung sih, misalnya dari 2024 langsung ke 2026, kayak gitu loh. Oke.

Researcher: Apa yang Anda pahami tentang plagiarisme atau penggunaan jurnal artikel secara etik? Apakah ada bagian yang masih Anda rasa tidak yakin tentang tersebut?

NAN: Ada sih yang tidak yakin, soalnya kan jarang sih pakai plagiarisme gitu.

Researcher: Oke. Misalnya kan ada masalah teknis saat menggunakan Google Scholar, ChatGPT, misalkan alat-alat yang kamu pakai untuk penelitian itu, langkah apa yang Anda ambil untuk menyelesaikan hal-hal itu?

NAN: Terkadang tuh, tadi kan terkadang ganti-gantian juga yang bisa dipakai atau yang belum gitu kan. Terkadang juga kalau disuruh nunggu satu jam, nunggu dulu, kayak gitu. Kalau emang tidak kepepet.

Researcher: Oke. Bagaimana Anda mengatur alur kerja saat penulisan skripsi, misalkan bagaimana Anda mengelola referensi, draft, ataupun catatan-catatan revisi saat penulisan skripsi?

NAN: Maksudnya kayak lebih ke apa ya?

Researcher: Bagaimana mengatur itu? Mengatur tempat-tempat ini juga.

NAN: Lebih ke nyusun folder sih, kalau untuk Google Drive tidak. Folder di laptop aja sih.

Researcher: Di laptop ya?

NAN: Iya.

Researcher: Oke. Apakah Anda menggunakan lebih dari satu alat digital secara bersamaan saat mengerjakan skripsi? Bagaimana Anda mengkombinasikannya?

NAN: Lebih sih, lebih dari satu. Misalnya kalau untuk nyari-nyari kelanjutan misalnya, minta kelanjutan setelah ini, baiknya apa sih? Dari skripsi. Kadang kan nyari jurnal juga dari Google Scholar, kadang tuh pakai Taylor & Francis gitu. Tergantung sama kebutuhan saat itu juga.

Researcher: Apakah Anda mengintegrasikan beberapa alat digital secara bersamaan? Misalkan Google Scholar, Zotero, ChatGPT, Grammarly, Quillbot gitu kan? Secara apa, terkoordinasi. Apakah pernah? Misalnya secara sekaligus gitu kan?

NAN: Iya, kayak gitu. Oke. Tapi itu sesuai kebutuhan gitu kan?

Researcher: Bagaimana Anda mengevaluasi kualitas suatu sumber? Misal dari kredibilitas penulis, kemungkinan bias, dan juga perbedaan sudut pandang dari antar penulis?

NAN: Lebih ke minta di, apa ya? Minta di... di-brainstorming-in sama AI gitu loh. Terus dibaca-baca ulang sama diri sendiri.

Researcher: AI yang dipakai apa?

NAN: Claude AI.

Researcher: Bagaimana Anda memutuskan alat atau strategi digital yang terbaik untuk digunakan pada berbagai tahap penulisan skripsi Anda?

NAN: Terkadang melihat jawaban yang diberikan per AI gitu loh. Misalnya ChatGPT, kan dikasih pertanyaan yang sama tuh di ChatGPT, di Gemini, di Claude AI. Terus lihat tuh jawaban mana yang paling kayak masuk akal dan emang tepat gitu. Kalau misalnya Gemini lebih tepat, pakai Gemini dulu gitu loh.

Researcher: Kita masuk ke RQ3. Kesulitan terbesar apa yang Anda alami selama penulisan skripsi? Misalkan masalah internet, masalah perangkat, atau mungkin akses ke software-nya misalnya?

NAN: Masalah internet dan masalah laptop juga sih. Laptop sempat ngadat-ngadat kayak gimana gitu kan. Padahal lagi butuh-butuhnya, terus internet juga sulit gitu.

Researcher: Misalkan pernah tak kehilangan data gitu kan? Misalkan kalau lagi kerjain skripsi, tiba-tiba laptop-nya mati dan tidak tersimpan. Pernah tak?

NAN: Pernah. Tapi dia tuh lebih ke sudah selesai, terus matiin laptopnya, tidak bisa hidup lagi. Tapi lagi dikirim di WhatsApp gitu loh. Jadi masih ada di situ. Tapi segala file yang ada di dalam itu hilang.

Researcher: Apakah ada fitur dalam alat akademik yang menurut Anda sulit digunakan? Yang paling sulit digunakan ya? Dari alat-alat akademik, contohnya Zotero, ChatGPT, Claude AI.

NAN: Claude AI. Kayaknya Mendeley ke Zotero deh, soalnya susah nak belajar itu.

Researcher: Susah ya?

NAN: Iya.

Researcher: Apakah ada alat akademik atau... Terus, Taylor & Francis. Susah ya pakai Taylor & Francis?

NAN: Iya, soalnya harus berbayar dahulu dalam itu. Jadi agak pusing sih.

Researcher: Sebenarnya ada filternya di Taylor & Francis, bisa filter gratis gitu. Pakai Sci-Hub kan?

NAN: Pakai Sci-Hub sudah sih? Terkadang kok tidak bisa pakai Sci-Hub?

Researcher: Sebenarnya ada juga yang gratis di Taylor & Francis. Apakah ada alat akademik atau database, misalkan Taylor & Francis tadi kan, yang tidak dapat Anda akses karena keterbatasan langganan, atau akses institusi? Misalkan Taylor & Francis disuruh berbayar gitu.

NAN: Lebih kesulitan gitu sih.

Researcher: Apakah ada yang lain, misalkan alat-alat AI kan harus berbayar?

NAN: Terkadang tuh ChatGPT atau Claude AI itu juga harus berbayar gitu loh. Misalnya terlalu banyak ngasih file atau ngasih foto gitu, harus berbayar, harus upgrade gitu. Jadi kita harus nunggu 5 jam ke depan atau 9 jam ke depan gitu, baru bisa pakai lagi.

Researcher: Apakah Anda kesulitan untuk membedakan bagaimana artikel yang telah ditinjau, dan diterbitkan akademik, atau artikel-artikel yang dibuat itu secara komersial?

NAN: Kalau untuk itu, biasanya saya lihat itu sih, penerbitan dalam, penerbitan apa ya, yang menerbitkan itu dari, dari apa ya, ada intinya logonya gitu loh. Ada logonya yang menerbitkan, emang menerbitkan jurnal itu gitu loh.

Researcher: Benar-benar legit ya? Bagaimana Anda mengelola banyaknya hasil yang dimunculkan dari misalkan pencarian Google Scholar? Apa? Bagaimana Anda mengelola banyaknya hasil yang dimunculkan dari Google Scholar? Bagaimana apa itu? Mengelola, misalkan hasilnya banyaknya misalnya, apa yang, bagaimana Anda pilihannya?

NAN: Pilihnya yang lebih ke, masuk ke itu aku sih, ke judulanku gitu loh. Kebutuhan, sesuai kebutuhan aku aja gitu.

Researcher: Oke, yang berbeda kontennya lah.

NAN: Atau kayak, kadang tuh gabungin juga, ini aku ambil yang penting, terus yang di jurnal ini aku ambil yang penting. Yang paling banyak itu sih yang konten.

Researcher: Oke. Pernahkah Anda mengalami kesulitan dengan penulisan sitasi, atau tidak sengaja menemui masalah, apa, integritas akademik itu? Pernah?

NAN: Kalau aku lebih nanya ke kawan sih kadang.

Researcher: Jadi pernah atau tidak?

NAN: Tidak sih. Tidak pernah.

Researcher: Apakah Anda merasa kesulitan dalam memparafrasekan sumber akademik tanpa meniru kata-kata persisnya?

NAN: Ngambil kutipan yang tidak sesuai, maksudnya yang tidak sama dengan aslinya kayak itu. Iya sih, lebih sering kayak itu sih daripada yang memang drop, ngambil copy kayak gitu ya. Paling kayak diparafrase gitu.

Researcher: Pernah kesulitan gak memparafrase? Memparafrase ya.

NAN: Kadang tidak, tidak, tidak. Soalnya udah ada AI gitu kan.

Researcher: Oke. Apakah Anda merasa sulit untuk menggabungkan ide dari berbagai sumber?

NAN: Terkadang sulit sih, soalnya kadang tuh ada yang berbeda gitu loh. Menurut si A kayak gini kayak gini, sedangkan menurut si B kayak gitu kayak gitu gitu kan. Itu menurut aku sulit sih untuk gabungin kadang tuh. Tapi intinya ada kayak kadang tuh minta tolong ke ChatGPT gitu. Ini maksudnya kayak gimana? Terus gabunginnya kayak gimana gitu.

Researcher: Oke. Seberapa percaya diri Anda saat menggunakan alat digital akademik untuk penulisan skripsi Anda?

NAN: Kalau untuk AI seperti ChatGPT itu tidak terlalu harus terlalu dipercaya gitu sih. Tapi lebih ke ngambil jurnal dulu. Ngambil jurnal dulu di Google Scholar kan. Terus minta tolong di ChatGPT, tolong simpulkan apa isinya. Terkadang tuh baca abstraknya aja gitu loh. Kesimpulannya aja gitu.

Researcher: Percaya diri nggak pakai ChatGPT gitu?

NAN: Hmm... ChatGPT mungkin.

Researcher: Pernahkah Anda merasa kewalahan atau putus asa oleh alat digital selama penulisan skripsi Anda?

NAN: Hmm... Pernah ya? Pernah-pernah. Soalnya kita nanyain apa gitu kan ke platform AI gitu. Tapi jawabnya lain gitu loh. Tidak sesuai keinginan kita gitu. Hmm... Kadang itu ya buntu juga. Kadang itu buntu juga. Kita nanyain apa gitu. Tapi dijawabnya agak lain gitu. Sebenarnya bukan yang kayak gitu maunya. Tapi dikasih yang kayak gitu.

Researcher: Oke. Apakah Anda menggunakan alat AI misalkan ChatGPT, Quillbot dalam penulisan skripsi Anda? Bagaimana Anda memutuskan apakah itu boleh digunakan?

NAN: Hmm... Sebagai alat bantu aja sih. Kalau untuk alat bantu itu menurut aku sendiri boleh gitu. Karena sekarang udah zaman digital gitu kan. Kawan-kawan ataupun banyak yang udah pakai alat digital gitu. Kenapa tidak boleh?

Researcher: Oke. Apakah Anda khawatir membuat kesalahan dalam sitasi atau plagiarisme?

NAN: Pastinya.

Researcher: Pastinya?

NAN: Iya.

Researcher: Apakah itu berpengaruh nggak misalkan khawatir gara-gara kesalahan dalam sitasi atau plagiarisme dalam penulisan skripsi Anda?

NAN: Kadang itu lebih ke psikologis sih.

Researcher: Psikologis?

NAN: Iya.

Researcher: Oke. Apakah Anda pernah menerima pelatihan formal di dalam kelas atau melalui institusi Anda? Tentang cara menggunakan alat akademik. Alat akademik apapun jenisnya misalkan. Oke. Pernah nggak?

NAN: Pernah. Udah masuk ke dalam grup gitu kan. Tapi emang ada link untuk cara makainya kayak gimana gitu. Tapi sekarang udah nggak ngikutin lagi soalnya. Lebih ke... Ternyata lebih ke institusi gitu loh. Ya. Kayak lebih ke dosen pembimbing aja daripada nengok ke grup-grup yang ngajarin-ngajarin gitu.

Researcher: Misalnya di kelas, apakah misalkan ada alat akademik yang pernah dipelajari? Untuk di kelas?

NAN: Iya, di kelas. Untuk di kelas atau yang apa ya? Yang di kelas.

Researcher: Di kelas ya? Pure di kelas.

NAN: Ini, cara pakai, cara pakai ini, apa namanya? Sci-Hub. Sci-Hub. Terus, cara pakai Google Scholar. Taylor & Francis. Itu sih yang diingat. Kayak ChatGPT juga pernah dibahas.

Researcher: Bentuk dukungan atau pelatihan apa yang paling bermanfaat bagi Anda di awal perjalanan penulisan skripsi?

NAN: Yang paling... Iya, yang paling bermanfaat. Yang paling bermanfaat, menurut aku ChatGPT.

Researcher: ChatGPT ya? Oke, apakah Anda merasa dosen pembimbing Anda memberikan bimbingan yang memadai tentang penggunaan alat digital?

NAN: Kalau untuk alat digital, iya. Dosen pembimbing itu ngasih saran. Bagaimana sih cara pakai ini, cara pakai AI? Atau emang itu mengambil prompt yang ini, mengambil prompt daripada yang biasa?

Researcher: Bagaimana Anda belajar menggunakan alat digital yang Anda gunakan tadi? Misal Anda antara belajar secara mandiri, atau belajar dengan kawan, atau kuliah, atau nonton YouTube atau TikTok?

NAN: Kadang belajar mandiri, kadang lihat tutorial YouTube, kadang tanya teman juga sih.

Researcher: Oke, apakah menurut Anda, Universitas Anda menyediakan akses yang cukup ke alat atau sumber daya digital? Misalkan ke database, database-database itu kan? Kayak lebih tempat nyari jurnal, nyari-nyari itu ya?

NAN: Sebenarnya perpustakaan itu kayak gitu sih, tapi udah lupa caranya gitu loh. Pernah dikasih tau di perpustakaan gitu kan, cara nyari-nyari jurnal, lewat nyari-nyari jurnal yang emang ada di perpustakaan gitu. Tapi tidak diterapkan gitu loh.

Researcher: Apakah kampus ada ngasih akses misalkan, akses berbayar untuk Taylor & Francis?

NAN: Kalau untuk itu sendiri, belum tau kayaknya enggak deh.

Researcher: Oke, Terimakasih Nesa.

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Researcher: Baik. Oke. Alat atau platform digital apa yang Anda gunakan selama penulisan skripsi? Google Drive juga termasuk.

RM: Microsoft Word. Microsoft Word. Terus... Mungkin... Quillbot kadang-kadang. Kayaknya... Oke.

Researcher: Bagaimana Anda mengelola file Anda secara digital? Apakah mengelola file referensi, draf skripsi di berbagai perangkat ataupun platform?

RM: Kalau misalnya file digital biasanya di Microsoft Word saja ya. Tapi kalau misalnya kayak data-data itu lebih simpannya ke Google Drive. Terus kalau misalnya kayak apa lagi ya, referensi ya biasanya langsung dikutip saja manual. Oke.

Researcher: Apakah Anda menggunakan alat manajemen referensi seperti Mendeley atau Zotero?

RM: Enggak. Enggak pakai ya? Karena... Bingung saya pakai. Jadi enggak pakai, manual.

Researcher: Apakah Anda menggunakan alat integritas akademik seperti Turnitin?

RM: Kalau untuk Turnitin belum sih. Tapi kayaknya masih kayak... Tapi belum pakai. Oke.

Researcher: Kalau Anda mengalami masalah teknis saat menggunakan alat digital, bagaimana biasanya Anda menyelesaikannya?

RM: Biasanya masalah teknis itu selain internet apa ya? Selain internet misalkan database-nya down gitu. Server-nya down. Oh pernah. Kalau itu selain internet biasanya... Bagaimana cara menyelesaikannya misalkan? Biasanya ini kan kalau nunggu dulu sampai besoknya terus baru dipakai.

Researcher: Bagaimana Anda menentukan apakah suatu sumber digital itu kredibel ataupun sesuai secara akademis untuk skripsi Anda?

RM: Kalau misalnya kan kita tuh kalau lagi ngerjain kan kadang ada yang lihat-lihat data. Di SCImago. SCImago. Terus kalau misalnya lagi malas, malas nggak mau ngecek ke sana itu biasanya lihat-lihat ini dulu. Apa tuh kayak nama jurnalnya. Biasanya kalau ada nama jurnal atau gimana itu kan biasanya itu udah kayak kredibel.

Researcher: Strategi pencarian apa yang Anda gunakan di database akademik? Misalkan Anda menggunakan fitur filter ataupun membatasi hasil berdasarkan tahun?

RM: Biasanya filternya memang ini ya pakai tahun 5 tahun terakhir. Ini baru ke yang jurnal umum gitu.

Researcher: Bagaimana Anda mensintesis informasi dari berbagai sumber digital saat menyusun literatur review? Mensintesis informasinya.

RM: Biasanya lewat ChatGPT. Di-upload terus tuh disuruh dia kayak apa aja sih maksud dari pembahasan di jurnal.

Researcher: Bagaimana Anda memastikan apakah Anda itu tidak melakukan plagiarisme atau menggunakan sumber digital itu secara etis pada saat memparafrase ataupun mengutip sumber digital?

RM: Kalau mengutip tadi ya kayak manual gitu. Parafrase? Kalau parafrase ini biasanya lewat Quillbot.

Researcher: Saat mencari sumber secara online, bagaimana Anda menavigasi antar tautan, artikel, ataupun database seperti Taylor & Francis, ResearchGate gitu untuk mencari informasi yang relevan tentang skripsi Anda?

RM: Biasanya itu tadi.

Researcher: Bagaimana Anda melindungi diri Anda dari plagiarisme yang tidak disengaja ataupun pelanggaran integritas akademik saat menulis dengan memakai sumber digital?

RM: Kalau itu biasanya ini ya, pakai bahasa sendiri. Terus itu kalau enggak tuh pakai Quillbot itu aja diparafrase.

Researcher: Bagaimana Anda berkomunikasi secara digital dengan dosen pembimbing Anda? Platform apa yang Anda gunakan? Bagaimana Anda memastikan data dan karya akademik Anda itu aman saat menggunakan platform digital? Aman tuh misalkan waktu menyimpan file itu biar tidak kehilangan?

RM: Tidak ada masalah ya?

Researcher: Apakah Anda menggunakan alat-alat AI dalam penulisan skripsi Anda? Bagaimana Anda memutuskan apakah itu boleh digunakan?

RM: Sebenarnya kalau boleh atau tidak itu, karena digital itu kan dari teman-teman itu kan kadang menyarankan pakai ini. Dosen pembimbing juga pernah menyarankan pakai ini malah.

Researcher: Bagaimana Anda memahami dan menerapkan tata cara penulisan akademik yang diterapkan oleh program TBI?

RM: Biasanya kalau untuk struktur atau formatnya itu kan di sekolah dulu tuh sebenarnya udah belajar biar tulisan itu rapi. Tapi kan kalau misalnya udah di kampus ini kan biasanya kan..

Researcher: Misalnya saat membaca artikel jurnal, apakah Anda melihat misalkan ada sudut pandang yang berbeda atau perspektif yang berbeda? Bagaimana hal itu mempengaruhi penulisan skripsi Anda?

RM: Itu bingung sih ya.

Researcher: Apakah platform digital misalkan ResearchGate tadi kan membuat Anda merasa menjadi bagian dari komunitas akademik?

RM: Karena dia itu saya gunakan untuk mencari jurnal. Jadi membantu lah.

Researcher: Apakah Anda merasa misalkan menjadi bagian komunitas akademik?

RM: Enggak sih.

Researcher: Pernahkah Anda berinteraksi dengan orang lain di platform digital akademik? Misalkan untuk mengajukan pertanyaan atau berbagi pengalaman gitu?

RM: Pernah. Lewat Instagram sama lewat WA.

Researcher: Melihat ke awal proses penulisan skripsi Anda, bagaimana kemampuan Anda menggunakan alat digital akademik itu telah berubah? Misalkan lebih baik atau jadi lebih buruk?

RM: Lebih baik, lebih terstruktur. Jadi kita lebih tahu arah penulisan kita itu kemana. Lebih kritis.

Researcher: Perbedaan apa yang Anda ketahui misalkan dalam cara Anda menggunakan alat digital pada awal penulisan skripsi, pertengahan sampai saat ini? Alat ya?

RM: Iya.

Researcher: Misalkan perbedaan itu?

RM: Perbedaan misalkan jadi lebih baik, bisa tahu prompt-promptnya di mana. Jadi lebih baik. Jadi mandiri juga sih mengerjakannya. Pertama, awal-awal itu kan nggak tahu ya. Cuma dari batas teman, dari tanya-tanya. Semakin kita sering memakai, kita semakin terbiasa semakin tahu gimana cara kerja dari AI-AI.

Researcher: Pernahkah Anda secara mandiri mempelajari alat atau keterampilan digital baru khusus untuk mendukung penulisan skripsi Anda?

RM: Pernah. Itu biasanya di Youtube, TikTok, biasanya cari tutorial atau nggak itu tanya sama teman itu.

Researcher: Apa hal yang mendorong Anda untuk mempelajari hal tersebut?

RM: Karena perlu tentunya. Kita kan susah membangun ide, jadi melalui AI itu jadi kita lebih terbuka.

Researcher: Apakah Anda pernah merenungkan praktik literasi digital Anda sendiri? Apakah ada area yang masih Anda perlu untuk ditingkatkan?

RM: Apa ya? Ada deh kayaknya. Misalnya kayak prompt-nya, gimana cara kita menginstruksikan si AI ini biar sesuai dengan kemauan kita. Jadi konsepnya itu dari kita, kita tinggal menjalankannya ke AI.

Researcher: Masuk ke RQ2. Sebelum memulai skripsi, apakah Anda mengetahui alat digital yang khusus digunakan untuk penulisan atau penelitian akademik?

RM: Tau, misalnya kayak SciSpace ini tadi, apa sih namanya? Terus Sci-Hub, itu termasuk ya. Terus Taylor & Francis, Google Scholar itu tadi, Quillbot.

Researcher: Dapatkah Anda menyebutkan alat digital yang dirancang khusus untuk penelitian akademik ataupun manajemen referensi? Manajemen referensi.

RM: Kalau yang untuk penelitian akademik?

Researcher: Untuk penelitian akademik itu. Yang selain ChatGPT?

RM: Ini ya, Claude AI.

Researcher: Apakah Anda sering membutuhkan bantuan orang lain saat menggunakan database seperti Taylor & Francis, ChatGPT, Publish or Perish, atau ChatGPT & ResearchGate?

RM: Enggak, kayaknya enggak. Karena sebelumnya itu sudah diajarin oleh dosen pembimbing. Kalau semua masih jelas ya, tapi sudah diajarin, jadi tau lah.

Researcher: Tugas digital mana yang terkait dengan skripsi Anda, misalkan mencari sumber, ataupun menggunakan database, atau mengelola referensi, yang paling sulit? Dan mengapa? Gimana ya? Misalkan yang paling susah itu mencari sumber, ataupun mencari database.

RM: Mencari sumber sih, mencari teori itu kita tadi. Karena kan kita tuh gimana ya, kalau nyari teori itu kan kalau bisa kan yang spesifik ya, kalau enggak tuh ya kita tuh kayak membuat, apa kata orangnya, kayak menggabungkan antara teori satu, ada dua teori yang harus kita gabungkan gitu. Jadi saya kesulitan dengan bagian teori gitu.

Researcher: Alat digital mana yang dapat Anda gunakan secara mandiri dalam pengerjaan skripsi?

RM: Kayak ini tadi ya, Google Scholar, Taylor & Francis, ChatGPT, lagi ya, Gemini. Mungkin itu sih, tapi mungkin saya merasa kalau itu tuh benar-benar kayak mahir banget, jadi kayak yang biasa-biasa aja lah ya.

Researcher: Apa ada alat-alat yang masih butuh bantuan enggak? Alat-alat AI gitu?

RM: Oh ada, misalnya kayak Mendeley itu, saya kurang tahu gitu, kayak Zotero juga gitu. Terus sama apa ya? Gamma AI ya, ada.

Researcher: Oke, bagaimana biasanya Anda mensitasi sumber digital dalam skripsi Anda? Bagaimana Anda mensitasi itu kayak memberikan kutipan gitu?

RM: Ya ini sih, manual sih. Misalnya kan ini ya, kita dari ChatGPT itu kan mau pakai jurnal ini, jurnal A. Terus itu kan ini, langsung minta ke ChatGPT, misalnya tolong buat referensi. Jadi manual gitu.

Researcher: Bagaimana Anda menggunakan fitur pencarian lanjut? Misalkan menggunakan filter saat mencari sumber?

RM: Pencarian lanjut ya pakai filter itu tadi ya. Pakai filter itu lima tahun terakhir lah.

Researcher: Apa yang Anda pahami tentang plagiarisme atau penggunaan sumber secara etis? Apakah ada bagian yang Anda rasa masih tidak yakin gitu tentang plagiarisme atau penggunaan sumber secara etis?

RM: Ada sih. Gimana ya, kayak di jurnal itu tuh kadang-kadang itu gimana ya, kadang udah tidak tahu lagi pakai jurnal apa, jadi pakai-pakai saja. Jadi kayak meragukan gitu.

Researcher: Apa parafrasenya tidak misalkan ke parafrasenya?

RM: Parafrasenya tidak sih, karena ada AI-nya.

Researcher: Saat masalah teknis muncul, misalkan di database yang digunakan, misalkan di Taylor & Francis, Google Scholar, ataupun AI-AI lain, langkah apa yang Anda ambil untuk menyelesaikan permasalahan tersebut?

RM: Kalau biasa itu masalahnya itu karena di ini ya, karena ada limit pemakaian, jadi biasanya saya itu nunggu-nunggu besok, baru saya pakai lagi.

Researcher: Bagaimana Anda mengatur alur kerja digital Anda? Misalkan bagaimana Anda mengelola referensi, draf, ataupun catatan revisi di berbagai tahapan penulisan? Mengatur alur kerjanya. Seperti yang tadi itu, mengelola referensi bagaimana, draf bagaimana.

RM: Kalau referensi, kalau referensi ya kayak tadi ya, manual gitu, terus itu seru dia, biasanya ya simpan di Microsoft Word itu saja. Kalau misalnya tentang data-data kayak interview gitu di Google Drive.

Researcher: Apakah Anda pernah menggunakan lebih dari satu alat digital secara bersamaan saat mengerjakan skripsi?

RM: Pernah, kayak misalnya ChatGPT atau ketiga, mungkin bisa juga ya. Jadi kalau misalnya di Taylor & Francis nggak ketemu, di Google Scholar nggak ketemu, biasanya saya pindahnya ke ChatGPT. Jadi kalau ChatGPT itu kan bisa dia itu, apa aja itu kan dimasukkan sama dia kan, mau dia kredibel atau nggak, jadi kita nge-check dulu, sudah selesai kedua yang saya sama Google itu nggak ada, kita ke ChatGPT.

Researcher: Apakah Anda mengintegrasikan berbagai alat digital secara bersamaan, misalkan Google Scholar, Grammarly, Quillbot, ChatGPT, dan Taylor & Francis, ResearchGate dalam alur kerja yang terkoordinasi?

RM: Iya, pernah.

Researcher: Bagaimana misalkan alat-alat ini itu saling melengkapi?

RM: Misalnya kayak, misalnya check-nya itu sudah saya jurnal, jadi kan kita mau tahu pembahasannya, jadi dia ke ChatGPT gitu. Misal di ChatGPT yang muncul, kurang-kurangnya jurnal fiktif gitu, nggak ada misalkan dicari di Google Scholar.

Researcher: Bagaimana Anda menilai kualitas suatu sumber, misalkan dari kredibilitas penulis, kemungkinan bias, ataupun sudut pandang? Kredibilitas dari jurnal itu ya? Bagaimana cara menilai kualitasnya?

RM: Biasanya kalau dari ada nama jurnal yang ada, misalnya dari University, atau International Journal, biasanya kalau itu saya rasa itu sudah kredibel.

Researcher: Bagaimana Anda memutuskan alat atau strategi digital mana yang terbaik untuk digunakan pada berbagai tahap skripsi Anda?

RM: ChatGPT.

Researcher: Masuk ke R3. Kesulitan teknis apa yang Anda alami selama penulisan skripsi, misalkan masalah internet, masalah perangkat, ataupun akses software, bagaimana hal tersebut mempengaruhi Anda saat mengerjakan skripsi?

RM: Biasanya ini ya, termasuk internet tadi. Enggak juga sih, kalau internet enggak juga. Mungkin masalah yang berbayar-bayar itu. Aksesnya. Jadi ke ini, ke besoknya. Atau kadang juga ya, tapi dia kesalah. Karena kadang dia bias sama kita. Kita bilang ini, dia juga bilang ini. Jadi kita mau cari tahu yang benarnya. Jadi kadang dia bias sama kita yang ikut retone kita. Padahal yang kita sendiri itu salah.

Researcher: Pernah tidak, misalkan kehilangan proses, ataupun kehilangan data saat penulisan skripsi?

RM: Kayaknya enggak pernah.

Researcher: Apakah ada fitur dalam alat elektronik seperti database, ataupun Mendeley, yang menurut Anda sulit digunakan? Apakah ada alat akademik ataupun database yang tidak dapat Anda akses karena keterbatasan langganan atau akses institusi?

RM: Kayaknya banyak ya. Rata-rata sebenarnya AI kayaknya jika baik lagi, kita mungkin buat akun baru. Biasanya dia kasih yang gratis dulu penggunaan awal, lalu bayar lagi.

Researcher: Apakah Anda pernah kesulitan untuk membedakan artikel mana yang telah ditinjau dari sumber non-akademis, ataupun yang bermotif secara komersial? Misalkan ada artikel yang peer-review, ada artikel yang digunakan untuk komersial baik.

RM: Biasanya kalau cara membedakannya, cara membedakannya itu biasanya ada kayak misalnya systematic review, itu kan bukan kayak penulisan, itu cuma tergantung sama kebutuhan kita.

Researcher: Pernah kesulitan tidak membedakannya?

RM: Kayaknya pernah.

Researcher: Bagaimana Anda mengelola banyaknya hasil yang dimunculkan oleh pencarian database?

RM: Misalnya kalau banyak ya, jadi kita cari yang kata kuncinya yang sesuai sama kita. Atau bisa kita baca dulu tuh, misalnya yang kita cari itu ada, jadi biasanya itu, atau cari yang selanjutnya terbaru.

Researcher: Pernahkah Anda mengalami kesulitan dengan format sitasi atau secara tidak sengaja menemukan masalah integritas akademik? Sitasi, kutipan.

RM: Kayaknya tidak ada, tapi buatnya manual.

Researcher: Apakah Anda pernah merasa kesulitan dalam memparafrasekan jurnal tanpa menirukan kata-kata persisnya?

RM: Kayaknya...

Researcher: Apakah Anda pernah merasa sulit untuk menggabungkan ide dari berbagai sumber untuk menjadi satu argumen yang jelas?

RM: Iya, sulit sih. Karena kan gimana ya, karena kita harus mikir. Jadi, karena kita juga takut salah kan?

Researcher: Seberapa percaya diri Anda saat menggunakan alat digital akademik untuk skripsi?

RM: Kayaknya... 50-50 juga sih.

Researcher: 50-50 ya? Apakah misalkan ada alat yang menyebabkan kecemasan, gitu kan? Atau malas itu?

RM: Cemas, ya. Karena dipakai terus, gitu. Iya, takutnya karena kita tuh kan, ketergantungan, ya. Turnitinnya tuh beda, gitu loh. Jadi kita cemas kalau Turnitinnya tuh masih mendeteksi AI.

Researcher: Pernahkah Anda merasa misalkan kewalahan ataupun putus asa oleh alat digital saat penulisan skripsi Anda?

RM: Pernah, karena karena tadi ya, jadi kita kesalahan sendiri sama hasil feedback. Jadi...

Researcher: Bagaimana pengaruhnya misalkan terhadap kemajuan dan motivasi Anda?

RM: Pengaruhnya kalau lagi itu ya besok-besok kita mulai lagi, gitu. Jadi, saya percaya. Oke, oke.

Researcher: Apakah Anda menggunakan alat AI misalkan ChatGPT ataupun Quillbot dalam penulisan skripsi? Bagaimana Anda memutuskan apakah itu boleh digunakan?

RM: Karena beberapa dosen itu kadang merekomendasikan, sekarang dari teman juga, kan.

Researcher: Apakah Anda khawatir misalkan membuat kesalahan dalam kutipan atau plagiarisme?

RM: Iya, khawatir.

Researcher: Khawatir, ya. Apakah ada pengaruhnya misalkan dalam penulisan Anda? Pengaruhnya misalnya kayak gimana? Misal, gara-gara takut kena plagiarisme.

RM: Ah, iya. Takut kena plagiarisme sama Turnitinnya. Pengaruh, ya.

Researcher: Apakah Anda pernah menerima pelatihan formal di kelas ataupun melalui institusi tentang cara menggunakan alat-alat akademik?

RM: Kalau dibilang formal enggak juga, ya. Mungkin itu tuh karena kemarin itu ada di mata kuliah apa jadi dia tuh cuma ngasih tahu aja gitu kalau misalnya pakainya gini jadi dia tuh menjelaskan.

Researcher: Bentuk dukungan atau pelatihan apa yang paling bermanfaat bagi Anda di awal perjalanan penulisan skripsi Anda? Pelatihan atau dukungan? Apakah Anda merasa dosen pembimbing Anda memberikan bimbingan yang memadai tentang penggunaan alat digital akademik?

RM: Kalau mungkin lebih ke saran-saran aja sih. Pernah juga ngasih tahu cara buat kayak buat prompt-nya untuk instruksi ke ChatGPT itu kecil-kecilan tapi ya enggak.

Researcher: Bagaimana Anda belajar dalam menggunakan alat digital yang Anda gunakan saat ini untuk penulisan skripsi Anda?

RM: Biasanya kalau paling sering ya tanya ke teman ya atau enggak ya tanya ke teman kalau misalnya ini atau otodidak itu biasanya dilihat video di YouTube atau di TikTok.

Researcher: Apakah menurut Anda universitas menyediakan akses yang cukup ke alat dan sumber daya digital? Misalkan database ataupun software?

RM: Ya ada sih karena di institusi itu ada perpustakaan sendiri ya dia juga menyarankan untuk kita nyari ke sana tapi saya lebih ke ini.

Researcher: Menurut Anda cukup gak aksesnya? Atau kurang?

RM: Karena saya jarang ya ke institusi di sana jadi kurang tahu tapi kayaknya cukup ya.

Researcher: Cukup ya. Ok. Thank you Rahma.

Transkrip Wawancara MAN 22 Juni 2026 15.49

Researcher: Alat atau platform digital apa yang Anda gunakan selama penulisan skripsi? Dan bagaimana cara Anda mengoperasikannya untuk mendukung tugas akademik tertentu, misalkan mencari sumber, menulis, merujuk, ataupun mengecek originalitas?

MAN: Selama proses penulisan skripsi saya itu, saya menggunakan beberapa platform digital yang membantu pekerjaan saya. Untuk mencari referensi, seperti biasanya, saya menggunakan Google Scholar dan lain-lain yang juga saya gunakan. Karena itu lebih mudah untuk menemukan artikel yang sesuai dengan topik penelitian saya. Selain itu juga, saya menggunakan Mendeley untuk menyimpan artikel dan membuat citasi secara otomatis. Terus dalam proses penulisan itu, saya menggunakan Microsoft Word tentunya sebagai media utama untuk menulis skripsi. Dan juga saya menggunakan ChatGPT ketika membutuhkan penjelasan mengenai teori tertentu atau ketika

ingin memperbaiki struktur kalimat dalam bahasa Inggris. Setiap aplikasi itu memiliki fungsi yang berbeda-beda tapi saling melengkapi selama proses saya menulis skripsi.

Researcher: Bagaimana Anda mengelola file digital, referensi, dan draft skripsi Anda di berbagai perangkat atau platform?

MAN: Untuk mengelola file itu, saya biasanya menggunakan folder khusus di laptop yang berisi artikel jurnal saya, instrumen penelitian saya, bab 1, bab 2, bab 3. Terus data penelitian, interview, dan segala macamnya. Dan juga ada draft skripsi yang saya buat dalam file khusus. Selain disimpan dalam laptop, saya juga menyimpan draft skripsi saya itu dalam Google Drive sebagai cadangan. Di HP juga saya cadangkan. Dengan cara ini, saya tetap bisa mengakses file skripsi saya itu melalui HP dan perangkat-perangkat lain ketika saya tidak membawa laptop. Menurut saya pengelolaan file itu sangat membantu karena tidak perlu mencari dokumen yang dibutuhkan berulang-ulang kali.

Researcher: Apakah Anda menggunakan alat manajemen referensi seperti Mendeley atau Zotero?

MAN: Ya, dari awal saya menggunakan Mendeley selama proses penelitian. Awalnya saya merasa kesulitan karena belum terbiasa menggunakan Mendeley. Tapi saya itu menonton tutorial di Youtube dan mencoba sendiri. Terus minta ajar sama teman juga ada. Saya mulai memahami cara kerjanya itu waktu sudah belajar yang sering. Fitur yang paling sering saya gunakan itu adalah menyimpan artikel PDF, membuat citasi otomatis di Microsoft Word, dan menyusun daftar pustaka. Selain itu, saya itu cukup terbiasa dalam mengoperasikan Mendeley dan jarang juga menggunakan aplikasi lain. Dan juga bukan Mendeley juga, saya juga sering menggunakan AI-AI untuk membuat daftar pustaka dan juga referensi.

Researcher: Apakah Anda menggunakan alat integritas akademik seperti Turnitin?

MAN: Ya tentunya ya. Saya menggunakan Turnitin itu untuk memeriksa tingkatan kemiripan tulisan saya dengan AI, dengan fitur orang lain, segala macamnya. Biasanya saya mengecek naskah setelah menyelesaikan satu bagian tersebut, misalnya bab 2 atau bab 3 atau bab 4 gitu kan. Ketika hasil similarity masih tinggi, saya itu akan mengecek kembali bagian-bagian mana yang bermasalah dan melakukan parafrase menggunakan kata-kata saya sendiri dan dengan bantuan Turnitin. Supaya saya itu merasa lebih yakin bahwa tulisan saya itu menghasilkan sudah sesuai dengan standard akademik yang ada di kampus saya.

Researcher: Saat Anda mengalami masalah teknis dengan alat digital, bagaimana biasanya Anda menyelesaikannya? Bisakah Anda memberikan contoh?

MAN: Ketika saya mengalami masalah teknis, biasanya saya itu mencoba mencari solusinya itu terlebih dahulu itu sendiri dulu ya, coba-coba dulu, otak-atik dulu. Terus kalau sudah agak bingung, terus stuck juga, saya menggunakan Google untuk bertanya, YouTube juga misalnya kan. Saya pernah mengalami masalah ketika Mendeley itu tidak terhubung dengan Microsoft Word, sehingga citasinya itu tidak bisa dimasukkan secara otomatis. Saat itu saya mencari tutorial dan mengikuti langkah-langkah yang ada di YouTube yang dijelaskan hingga masalah itu selesai. Jadi jika saya itu masih tidak menemukan solusi, saya biasanya bertanya kepada teman yang lebih memahaminya mengenai penggunaan aplikasi tersebut.

Researcher: Kemudian bagaimana Anda menentukan apakah suatu sumber digital itu kredibel atau sesuai secara akademis untuk penulisan skripsi Anda?

MAN: Ketika saya itu mencari referensi, saya berusaha memastikan bahwa sumber yang digunakan itu benar-benar kredibel. Saya biasanya melihat apakah artikel tersebut berasal dari jurnal ilmiah yang terpercaya atau memiliki DOI atau tidak. Dan diterbitkan oleh penerbit yang jelas atau tidak. Nah selain itu, saya juga memperhatikan tahun publikasi karena saya lebih sering menggunakan artikel yang relatif baru agar informasi yang digunakan itu lebih relevan dengan perkembangan penelitian saat ini.

Researcher: Strategi pencarian apa yang Anda gunakan di basis data akademik? Misalkan Anda menerapkan filter atau membatasi hasil itu berdasarkan tahun?

MAN: Saat mencari artikel itu, saya biasanya menggunakan kata kunci yang spesifik sesuai topik penelitian saya. Selain itu, saya juga sering membatasi hasil pencarian berdasarkan tahun publikasinya agar mendapatkan penelitian terbaru. Kadang-kadang, saya juga menggunakan kata hubung seperti AND, OR untuk mempersempit atau memperluas hasil pencarian. Strategi ini cukup membantu saya karena bisa menemukan artikel yang lebih relevan dalam waktu yang lebih singkat.

Researcher: Bagaimana Anda mensintesis informasi dari berbagai sumber digital saat menyusun tinjauan pustaka? Dapatkah Anda menjelaskan bagaimana Anda menggabungkan atau membandingkan suatu gagasan dari berbagai sumber?

MAN: Oke, ketika saya itu menyusun literatur review, saya membaca beberapa artikel yang membahas topik yang sama. Selain itu, saya mencatat poin-poin penting dari masing-masing artikel tadi dan membandingkan hasil penelitian mereka. Nah, jika terdapat kesamaan, saya mengelompokkannya menjadi satu tema. Jika ada perbedaan juga, saya menjelaskan perbedaan tersebut dalam pembahasan. Dengan cara itu, saya dapat menyusun tinjauan pustaka yang lebih terstruktur dan menunjukkan hubungan antara berbagai penelitian sebelumnya.

Researcher: Bagaimana Anda memastikan tidak melakukan plagiarisme dan menggunakan sumber digital secara etis saat memparafrase atau mengutip?

MAN: Nah, untuk menghindari plagiarisme ini, saya selalu mencantumkan sumber ketika menggunakan ide atau informasi dari penulis lain. Saya berusaha menulis kembali informasi tersebut dengan bahasa saya sendiri dan tidak hanya menyalin kalimat secara langsung. Selain itu juga, saya juga menggunakan Turnitin untuk memeriksa tingkat kemiripan tulisan saya sebelumnya untuk mengumpulkan draft kepada dosen pembimbing.

Researcher: Saat Anda mencari sumber secara online, bagaimana Anda menavigasi antar tautan, artikel, dan database untuk menemukan informasi yang relevan?

MAN: Biasanya saya memulai pencarian dari Google Scholar. Setelah menemukan satu artikel yang relevan, saya mencoba membaca daftar pustakanya untuk menemukan sumber lain yang terkait dengan topik penelitian saya. Dari satu topik artikel, saya sering menemukan banyak artikel lain yang juga berguna untuk penelitian saya. Dengan cara ini, saya dapat memperluas referensi dan memperoleh pemahaman yang lebih mendalam mengenai topik yang sedang saya teliti.

Researcher: Bagaimana Anda melindungi diri dari plagiarisme yang tidak disengaja ataupun pelanggaran integritas akademik saat Anda bekerja dengan sumber digital?

MAN: Saya membuat catatan mengenai sumber yang saya gunakan sejak awal proses penulisan ini. Ketika mengambil kutipan atau ide dari suatu artikel, saya langsung mencatat informasi referensinya, agar tidak ada lupa mencantumkan citasi dan lainnya. Saya juga memeriksa kembali setiap bagian tulisan sebelum dikirim untuk memastikan semua sumber sudah dicantumkan dengan benar.

Researcher: Bagaimana Anda berkomunikasi secara digital dengan dosen pembimbing skripsi Anda? Platform apa yang Anda gunakan?

MAN: Saya biasanya berkomunikasi dengan dosen pembimbing melalui Whatsapp. Saat menghubungi dosen, saya berusaha menggunakan bahasa yang sopan dan formal. Saya memperkenalkan diri, menjelaskan tujuan pesan saya dan menghindari mengirim pesan pada waktu yang tidak tepat, waktu malam hari atau weekend. Itu menurut saya komunikasi yang baik itu sangat penting agar proses bimbingan itu berjalan dengan lancar.

Researcher: Bagaimana Anda memastikan data dan karya akademik Anda itu aman saat menggunakan platform digital? Misalkan dalam menyimpan file supaya menghindari kehilangan data dan juga melindungi akun Anda.

MAN: Untuk menjaga keamanan data saya, saya selalu menyimpan file saya itu lebih dari satu tempat. Seperti di laptop ada tiga file yang saya samakan, saya menyimpannya di Google Drive juga. Sehingga jika terjadi kerusakan perangkat atau kehilangan data saya itu, saya masih memiliki cadangan. Saya juga rutin memperbarui file dan menggunakan kata sandi yang aman untuk akun-akun yang saya gunakan.

Researcher: Apakah Anda menggunakan alat AI misalkan ChatGPT atau alat parafrase lain dalam penulisan skripsi Anda? Bagaimana Anda memutuskan apakah itu boleh digunakan?

MAN: Saya menggunakan ChatGPT selama proses penulisan saya. Biasanya saya menggunakannya itu untuk membantu memahami teori, terus menjelaskan konsep yang sulit dipahami atau memberi contoh perbaikan kalimat dalam bahasa Inggris. Namun saya itu tidak langsung menyalin hasil yang diberikan oleh ChatGPT tadi. Saya tetap memeriksa kembali informasi tersebut dan membandingkannya dengan sumber-sumber akademik yang terpercaya.

Researcher: Bagaimana Anda memahami dan menerapkan peraturan penulisan akademik yang diterapkan dalam program TBI? Misalkan gaya pengutipan, register, dan juga struktur penulisan.

MAN: Sejak memulai menyusun skripsi ini, saya berusaha memahami aturan penulisan akademik yang berlaku di TBI. Saya mempelajari pedoman penulisan skripsi yang diberikan oleh program studi TBI dan juga mengikuti arahan dari dosen pembimbing. Dalam penulisan, saya juga memperhatikan penggunaan referensi, menggunakan APA style, untuk citasi dan daftar pustaka. Struktur penulisan setiap bab juga saya pelajari, serta penggunaan bahasa akademik yang formal. Pada awalnya, saya sering melakukan kesalahan dengan format penulisan tersebut dan juga

menyusun referensi. Tetapi setelah beberapa kali saya revisi dan bimbingan sama dosen pembimbing, saya lebih memahami standar yang harus diterapkan dalam penulisan skripsi di TBI.

Researcher: Saat membaca artikel jurnal, apakah Anda melihat sudut pandang atau perspektif yang berbeda? Bagaimana hal itu mempengaruhi cara Anda menulis skripsi Anda?

MAN: Ketika mencari artikel jurnal, saya sering menemukan perbedaan pandangan atau hasil penelitian dari para peneliti. Ada beberapa penelitian yang menunjukkan hasil positif terhadap satu metode pembelajaran, sementara penelitian lain menunjukkan hasil yang berbeda karena konteks atau subjek penelitiannya tidak sama. Perbedaan tersebut membuat saya lebih kritis dalam membahas satu topik. Saya tidak hanya menerima satu pendapat saja, tetapi berusaha membandingkan beberapa sudut pandang sebelum menarik kesimpulan. Hal ini membuat saya menyelesaikan argumen yang lebih kuat dan seimbang dalam skripsi.

Researcher: Apakah platform digital, misalkan ResearchGate, Academia.edu, membuat Anda merasa menjadi bagian dari komunitas akademik? Bagaimana pengaruhnya terhadap pekerjaan skripsi Anda?

MAN: Saya merasa platform seperti ResearchGate dan Academia.edu membuat saya lebih dekat dengan komunitas akademik. Melalui platform tersebut, saya dapat melihat penelitian yang dilakukan oleh peneliti dari berbagai negara dan mengikuti perkembangan terbaru dalam bidang yang saya teliti. Saya juga merasa termotivasi karena melihat banyak penelitian yang berkualitas dan relevan dengan topik saya. Terus kehadiran platform tersebut membuat saya memperoleh referensi tambahan yang mungkin tidak saya temukan melalui pencarian biasa.

Researcher: Pernahkah Anda berinteraksi dengan orang lain di platform digital akademik, misalkan mengajukan pertanyaan atau berbagi suatu problem? Bagaimana pengalaman Anda?

MAN: Saya pernah berinteraksi dengan penulis atau peneliti yang melalui platform akademik digital terutama ketika membutuhkan artikel yang tidak dapat diakses secara penuh. Saya pernah minta akses artikel melalui ResearchGate dan mendapatkan respon yang cukup baik. Pengalaman tersebut membuat saya menyadari bahwa komunitas akademik cukup terbuka untuk berbagi pengetahuan. Selain itu, saya juga pernah membaca diskusi dan pertanyaan dari peneliti lain yang membuat saya memahami suatu topik penelitian dengan lebih baik.

Researcher: Melihat ke awal proses penulisan skripsi Anda, bagaimana menurut Anda kemampuan Anda menggunakan alat digital akademik itu berubah?

MAN: Jika dibandingkan dengan awal proses saya menulis skripsi, kemampuan saya dalam menggunakan berbagai alat akademik digital mengalami peningkatan yang cukup besar. Pada awalnya, saya hanya mengetahui cara mencari artikel melalui Google Scholar dan menggunakan Microsoft Word tadi untuk menulis. Namun, seiring berjalannya waktu itu, saya mulai mempelajari penggunaan Mendeley, Turnitin, AI, Google Drive, serta alat seperti ChatGPT, alat parafrase, Quillbot, dan lainnya. Saat ini saya merasa lebih percaya diri dan lebih efisien dalam menggunakan teknologi untuk mendukung proses penelitian dan penulisan skripsi saya.

Researcher: Perbedaan apa yang Anda lihat dalam cara Anda menggunakan alat digital pada tahap awal penulisan skripsi, pertengahan penulisan skripsi, dan sekarang itu saat tahap akhir penulisan skripsi?

MAN: Pada tahap awal, saya lebih banyak menggunakan alat digital untuk mencari referensi dan memahami teori topik penelitian saya. Ketika memasuki tahap tengah, saya lebih fokus menggunakan alat digital untuk pengelolaan referensi menggunakan Mendeley, penyusunan instrumen penelitian, dan penulisan skripsi. Sementara itu, pada tahap akhir ini, saya lebih sering menggunakan Turnitin untuk memeriksa similarity, Grammarly juga untuk memperbaiki tata bahasa, dan berbagai platform penyimpanan seperti Cloud [Google Drive/Dropbox] untuk memastikan seluruh data dan dokumen tersimpan dengan aman. Jadi penggunaan alat digital saat ini berkembang sesuai dengan kebutuhan pada setiap tahap penyusunan skripsi saya.

Researcher: Pernahkah Anda secara mandiri mempelajari alat atau keterampilan digital baru yang khusus untuk mendukung penulisan skripsi Anda? Apa yang mendorong Anda melakukan hal ini?

MAN: Saya pernah belajar secara mandiri menggunakan beberapa alat digital yang sebelumnya belum pernah saya gunakan, seperti Mendeley, pada awal-awal saya belum bisa, dan juga ChatGPT. Awalnya saya merasa kesulitan karena tidak ada mata kuliah khusus yang menjelaskan tentang penggunaan alat tersebut secara mendalam. Karena saya melihat bahwa alat tersebut dapat membantu mempercepat proses penulisan skripsi, saya mencoba mempelajarinya melalui video Youtube, tutorial online, dan praktik langsung. Dengan mencoba berulang kali, saya akhirnya dapat menggunakan alat tersebut secara lebih efektif untuk mendukung pekerjaan akademik saya.

Researcher: Apakah Anda pernah merenungkan praktik literasi digital Anda sendiri? Apakah masih ada area yang perlu Anda kembangkan?

MAN: Saya merasa sering merefleksikan kemampuan literasi digital yang saya miliki, terutama setelah menghadapi berbagai tantangan selama proses penulisan skripsi. Saya menyadari bahwa kemampuan saya dalam menggunakan teknologi sudah berkembang dibanding sebelumnya, tetapi masih ada beberapa aspek yang perlu ditingkatkan. Misalnya, saya masih ingin belajar lebih banyak tentang penggunaan database internasional yang lebih kompleks, teknik pencarian artikel yang lebih relevan, serta cara mengevaluasi kualitas sumber secara lebih kritis. Selain itu juga, saya ingin meningkatkan pemahaman mengenai penggunaan AI secara etis dalam konteks akademik agar dapat memanfaatkan secara bertanggung jawab.

Researcher: Sebelum memulai skripsi, apakah Anda mengetahui alat digital yang khusus digunakan untuk penelitian atau penelitian akademik?

MAN: Oke, sebelum saya memulai mengerjakan skripsi, pengetahuan saya tentang alat digital untuk keperluan akademik masih sangat terbatas. Saya hanya mengenal Google untuk mencari informasi dan Microsoft Word untuk menulis tugas. Selain itu, saya belum mengetahui bahwa ada aplikasi khusus seperti Mendeley, Turnitin, dan Database Akademik yang dapat membantu proses penelitian saya itu lebih bagus. Saya mulai mengenal berbagai alat tersebut ketika masuk ke tahap penyelesaian proposal skripsi dan mendapatkan informasi tersebut dari dosen maupun teman-teman saya.

Researcher: Dapatkah Anda menyebutkan alat digital yang dirancang khusus untuk penelitian akademik atau manajemen referensi?

MAN: Oke, saat ini saya sudah mengetahui beberapa alat digital yang memang dirancang untuk mendukung penelitian akademik. Misalnya, saya mengenal Mendeley sebagai aplikasi manajemen referensi, Google Scholar juga untuk mencari referensi ilmiah, Turnitin untuk memeriksa similarity, dan Grammarly untuk membantu memperbaiki tata bahasa saya. Dan juga kayak Quillbot juga ya tambahan untuk memparafrase tulisan saya nanti. Namun, sebelum mengerjakan skripsi, saya belum mengetahui fungsi maupun cara menggunakan alat-alat tersebut secara mendalam.

Researcher: Apakah Anda sering membutuhkan bantuan orang lain saat menggunakan database akademik atau alat referensi?

MAN: Pada awal penelitian skripsi saya, saya cukup sering minta bantuan kepada teman atau dosen ketika menggunakan database akademik maupun aplikasi referensi seperti Mendeley. Terus, saya pernah mengalami kesulitan saat memasukkan citasi pertama kali ke dalam Microsoft Word dan tidak menemukan plugin Mendeley. Selain itu, saya juga sering bingung ketika mencari artikel yang benar-benar relevan dengan topik penelitian saya. Namun, setelah beberapa kali saya belajar dan mencoba secara mandiri, ketergantungan saya terhadap bantuan orang lain itu mulai berkurang.

Researcher: Menurut Anda, tugas digital mana yang terkait dengan skripsi Anda misalkan mencari sumber, menggunakan database, atau mengelola referensi? Yang mana dari ketiga hal itu yang paling sulit? Dan mengapa?

MAN: Salah satu tugas digital yang menurut saya paling sulit adalah mencari sumber yang benar-benar relevan dan berkualitas tinggi. Terkadang hasil pencarian saya itu banyak sekali sehingga saya kebingungan untuk menentukan artikel mana yang paling sesuai dengan topik penelitian saya. Selain itu juga, saya pernah mengalami kesulitan dalam mengelola referensi dan memastikan semua citasi sudah sesuai dengan format yang ditentukan. Kesulitan tersebut biasanya muncul karena kurangnya pengalaman dan pemahaman terhadap fitur-fitur yang tersedia pada alat digital yang saya gunakan.

Researcher: Alat digital mana yang dapat Anda gunakan secara mandiri dalam pekerjaan skripsi dan alat mana yang masih membutuhkan bantuan?

MAN: Saat ini saya sudah mampu menggunakan beberapa alat digital secara mandiri seperti Google Scholar, Microsoft Word, Google Drive, ChatGPT, dan Mendeley untuk kebutuhan dasar. Dan saya dapat mencari artikel, mengelola referensi, membuat citasi, dan menyusun dokumen skripsi tanpa banyak bantuan dari orang lain.

Researcher: Bagaimana biasanya Anda mencitasi sumber digital dalam skripsi Anda?

MAN: Biasanya saya menggunakan Mendeley untuk memasukkan citasi dan membuat daftar pustaka saya secara otomatis. Setelah itu citasi dimasukkan, saya tetap memeriksa kembali apakah informasi penulisan tahun publikasi dan format penulisannya sudah sesuai dengan pedoman yang digunakan dalam program studi saya.

Researcher: Bagaimana Anda menggunakan filter pencarian lanjutan saat mencari suatu sumber?

MAN: Ketika saya mencari sumber, saya tidak hanya memasukkan kata-kata kunci secara umum, tetapi juga menggunakan strategi pencarian yang lebih spesifik. Misalnya, menggunakan operator AND, menggunakan dua konsep yang berbeda, dan operator OR untuk mencari istilah yang memiliki artikel yang serupa.

Researcher: Apa yang Anda pahami tentang plagiarisme atau penggunaan sumber secara etis? Apakah ada bagian yang masih Anda rasa tidak yakin?

MAN: Menurut pemahaman saya, plagiarisme terjadi ketika seseorang menggunakan ide, kalimat, atau hasil karya orang lain tanpa memberikan pengakuan yang sesuai. Oleh karena itu, saya selalu berusaha mencantumkan citasi ketika menggunakan sumber tertentu dan melakukan parafrase dengan bahasa saya sendiri. Apakah ada bagian yang masih Anda rasa tidak yakin? Yang saya kurang yakin, masih ragu, mengenai batasan antara parafrase yang baik dan kemiripan yang terlalu tinggi, sehingga saya sering memeriksa kembali tulisan saya menggunakan Turnitin.

Researcher: Saat masalah teknis muncul di Mendeley, database atau Turnitin, langkah apa yang Anda ambil untuk menyelesaikannya?

MAN: Ketika menghadapi masalah teknis, saya biasanya mencoba mengatasi penyebab masalah terlebih dahulu. Setelah itu, saya mencari solusi melalui dokumentasi resmi, video tutorial, forum diskusi, atau artikel yang relevan di internet. Jika langkah tersebut belum berhasil, saya akan berdiskusi dengan teman yang memiliki pengalaman yang serupa atau meminta bantuan kepada dosen saya.

Researcher: Bagaimana Anda mengatur alur kerja digital Anda? Misalkan, bagaimana Anda mengelola referensi, draft, dan catatan di berbagai tahap penulisan?

MAN: Saya berusaha mengatur alur kerja digital saya secara sistematis. Saya membuat folder terpisah untuk artikel jurnal, data penelitian, instrumen, hasil wawancara saya, dan draft skripsi saya. Referensi saya saya simpan dan mengelola menggunakan Mendeley. Sementara file penting juga dicadangkan ke Google Drive.

Researcher: Apakah Anda menggunakan lebih dari satu alat digital secara bersamaan saat mengerjakan skripsi Anda? Bagaimana Anda menggabungkannya?

MAN: Saya sering menggunakan beberapa alat digital secara bersamaan. Misalnya, saya mencari artikel melalui Google Scholar, kemudian menyimpannya ke Mendeley untuk pengelolaan referensi. Setelah itu, saya menulis skripsi saya menggunakan Microsoft Word sambil memasukkan citasi dari Mendeley tadi.

Researcher: Apakah Anda mengintegrasikan beberapa alat digital secara bersamaan dalam alur kerja yang terkoordinasi? Bagaimana alat-alat digital tersebut saling melengkapi?

MAN: Saya mengintegrasikan beberapa alat digital dalam satu alur kerja yang saling mendukung. Biasanya, saya mulai dengan mencari artikel melalui Google Scholar, kemudian mengelola referensi menggunakan Mendeley. Saat saya menulis menggunakan Microsoft Word, dan sesekali menggunakan ChatGPT untuk membantu memahami teori atau memperbaiki kalimat. Setelah saya selesai menulis, saya menggunakan Grammarly untuk memeriksa tata bahasa dan Turnitin untuk memastikan tingkat similarity saya.

Researcher: Bagaimana Anda mengevaluasi kualitas suatu sumber, misalkan kredibilitas penulis, kemungkinan bias, ataupun perbedaan sudut pandang? Dapatkah Anda memberikan contoh?

MAN: Ketika mengevaluasi kualitas suatu sumber, saya memperhatikan beberapa aspek seperti reputasi jurnal, kredibilitas penulis, tahun publikasi, serta relevansi dengan topik penelitian saya. Saya juga melihat apakah artikel tersebut telah melalui proses peer review, dan apakah argumen yang disampaikan didukung oleh data yang kuat. Misalnya jika saya menemukan dua artikel yang membahas topik yang sama, saya sering memilih artikel yang diterbitkan pada jurnal yang bereputasi dan memiliki metodologi penelitian yang jelas.

Researcher: Bagaimana Anda memutuskan alat atau strategi digital mana yang terbaik untuk digunakan pada berbagai tahap skripsi Anda?

MAN: Pemilihan alat digital biasanya saya sesuaikan dengan kebutuhan pada setiap tahap penelitian saya. Pada tahap awal, saya lebih banyak menggunakan Google Scholar, Database Akademik [Academia.edu/ResearchGate] untuk mencari referensi. Ketika mulai menulis, saya menggunakan Microsoft Word, Mendeley, dan ChatGPT untuk membantu proses penyusunan naskah saya. Pada tahap revisi, saya menggunakan Grammarly dan Turnitin untuk memperbaiki kualitas tulisan dan memastikan integritas akademik saya.

Researcher: Kesulitan teknis apa yang Anda alami selama penulisan skripsi, misalnya masalah internet, masalah perangkat, atau akses perangkat lunak? Bagaimana pengaruhnya terhadap pekerjaan Anda?

MAN: Oke, tentu ya, saya sering mengalami masalah seperti koneksi internet yang tidak stabil, dan terkadang laptop saya terkadang lambat saat membuka banyak file atau aplikasi sekaligus. Hal ini membuat proses pengerjaan skripsi saya menjadi lebih lambat.

Researcher: Pernahkah Anda kehilangan progres atau mengalami kehilangan data selama proses skripsi?

MAN: Oke, saya pernah kehilangan sebagian revisi karena lupa menyimpan file, lupa men-save. Setelah itu saya mulai rutin dari experience yang tadi, saya backup di Google Drive.

Researcher: Apakah ada fitur dalam alat akademik yang akan Mendeley atau database yang menurut Anda sulit digunakan? Yang mana dan mengapa?

MAN: Oke, beberapa fitur itu di Mendeley seperti sinkronisasi referensi, dan pengaturan citasi terkadang masih membingungkan bagi saya.

Researcher: Apakah ada alat akademik atau database yang tidak dapat Anda akses karena keterbatasan langganan atau akses institusi? Bagaimana pengaruhnya terhadap pekerjaan skripsi Anda?

MAN: Ya, betul sih. Beberapa jurnal kan berbayar, tidak dapat saya akses karena keterbatasan langganan institusi. Akibatnya saya mencari alternatif sumber lain yang dapat diakses secara gratis.

Researcher: Pernahkah Anda kesulitan membedakan artikel yang telah ditinjau melalui peer review dari sumber non-akademis atau yang bermotif komersial?

MAN: Terutama pada awal penelitian, biasanya saya mengecek jurnal, penerbit, dan informasi artikel untuk memastikan kredibilitasnya.

Researcher: Bagaimana Anda mengelola banyaknya hasil yang dikembalikan oleh pencarian database? Strategi apa yang membantu Anda mengidentifikasi sumber mana yang paling relevan?

MAN: Biasanya saya menggunakan kata kunci yang lebih spesifik dan juga membatasi tahun publikasi. Agar hasil pencariannya lebih relevan.

Researcher: Pernahkah Anda mengalami kesulitan dengan format citasi atau secara tidak sengaja menemukan masalah integritas akademik?

MAN: Saya pernah melakukan kesalahan format citasi karena data referensi yang tidak lengkap. Terus saya memperbaiki itu dengan memeriksa kembali sumber yang asli.

Researcher: Apakah Anda merasa kesulitan dalam memparafrasekan sumber akademik tanpa meniru kata-kata persisnya? Strategi apa yang Anda gunakan?

MAN: Terkadang sulit mengubah kalimat tanpa menghilangkan maknanya. Saya biasanya membaca beberapa kalilah, lalu saya menuliskannya dengan bahasa saya sendiri.

Researcher: Apakah Anda merasa sulit untuk menggabungkan ide dari berbagai sumber menjadi satu argumen yang jelas? Dapatkah Anda menjelaskannya?

MAN: Terutama ketika hasil penelitian berbeda. Lalu saya mencoba membandingkannya dan mencari hubungan antara sumber-sumber tersebut.

Researcher: Seberapa percaya diri Anda saat menggunakan alat digital akademik untuk skripsi? Apakah ada alat atau tugas tertentu yang menyebabkan kecemasan atau keengganan?

MAN: Saya cukup percaya diri menggunakan alat digital dasar, tapi masih merasa kurang yakin ketika menggunakan fitur yang lebih kompleks.

Researcher: Pernahkah Anda merasa kewalahan atau malah putus asa saat Anda menulis skripsi Anda? Apakah itu ada pengaruhnya terhadap kemajuan dan motivasi Anda?

MAN: Ya, terutama ketika menghadapi masalah teknis atau banyak revisi sekaligus. Namun, saya mencoba mencari solusi secara bertahap agar tetap termotivasi dalam menulis skripsi saya.

Researcher: Apakah Anda menggunakan alat AI misalkan ChatGPT atau alat parafrase seperti Quillbot ataupun Grammarly dalam penulisan skripsi Anda?

MAN: Ya, tentu saya menggunakan ChatGPT untuk membantu memahami teori dan memperbaiki kalimat. Setelah itu, saya juga menggunakan Quillbot untuk memperbaiki parafrase dan menulis skripsi saya. Namun, saya tetap mengecek kembali informasi yang diberikan oleh AI.

Researcher: Apakah Anda khawatir membuat kesalahan dalam kutipan atau plagiarisme? Bagaimana pengaruhnya terhadap cara Anda menulis skripsi?

MAN: Saya cukup khawatir karena kesalahan citasi dapat mempengaruhi kualitas skripsi. Oleh karena itu, saya selalu rutin memeriksa ulang referensi dan hasil turnitin saya.

Researcher: Apakah Anda pernah menerima pelatihan formal di kelas ataupun melalui institusi Anda? Tentang cara menggunakan alat akademik seperti Mendeley, Turnitin, atau database akademik, apa yang pernah Anda pelajari?

MAN: Saya pernah mendapatkan pelatihan dasar tentang Mendeley dan Turnitin dari kampus, tapi masih perlu belajar lebih lanjut secara mandiri karena kurang belajar waktu di kampus.

Researcher: Menurut Anda, bentuk dukungan atau pelatihan apa yang paling bermanfaat bagi Anda di awal perjalanan penulisan skripsi Anda?

MAN: Menurut saya, bimbingan yang lebih mendalam tentang pencarian artikel, penggunaan database, dan manajemen referensi akan sangat membantu bagi yang baru mulai menulis skripsi.

Researcher: Apakah Anda merasa dosen pembimbing Anda itu memberikan bimbingan yang memadai tentang penggunaan alat digital di akademik?

MAN: Sangat membantu, dosen pembimbing saya cukup membantu dengan memberikan arahan mengenai referensi, citasi, dan penggunaan alat akademik.

Researcher: Bagaimana Anda belajar menggunakan alat digital yang saat ini Anda andalkan untuk skripsi? Apakah Anda belajar sendiri, atau instruksi teman, atau melalui tutorial YouTube, TikTok, ataupun IG, atau melalui kuliah, atau lokakarya formal?

MAN: Sebagian besar saya itu belajar itu dari YouTube, terus tutorial online, dan juga bantuan dari teman-teman yang sudah berpengalaman menggunakan digital tools.

Researcher: Apakah menurut Anda universitas menyediakan akses yang cukup ke alat dan sumber daya digital?

MAN: Menurut saya cukup membantu, tetapi akses terhadap jurnal internasional dan database masih perlu ditingkatkan lagi, agar mahasiswa memiliki lebih banyak sumber referensi yang berkualitas untuk skripsi mereka.

Researcher: Terima kasih Nando.

APPENDIX 5 DATA OF OBSERVATION CHECKLIST

OBSERVATION CHECKLIST

Research Questions:

- What types of digital literacy do students use in writing their thesis?
- How do students demonstrate their digital literacy competency levels during their undergraduate thesis writing process?
- What challenges do students face in implementing digital literacy during their thesis writing process?

Subject: DFH

No.	Aspect	Observable Indicators	Checklist Items	Checklist (✓ / X)	Notes
1	Technical Dimension	Ability to operate academic digital platforms and tools	Student independently navigates and operates academic digital platforms to complete thesis-related tasks.	✓	Menggunakan Publish or Perish, AI generatif (ChatGPT, DeepSeek, Claude), dan database (Taylor & Francis, Elsevier) secara mandiri.
2	Technical Dimension	File management, data transfer, and storage practices	Student organizes, stores, and manages digital files systematically (folder structure, file naming, cloud storage, version control).	✓	Mengunduh dan menyimpan referensi dalam folder terstruktur di laptop, serta mencadangkan data dan kuesioner di Google Drive.
3	Technical Dimension	Use of reference management software (e.g., Mendeley, Zotero)	Student imports, organizes, and uses references using tools such as Mendeley or Zotero.	X	Mengetahui alat tersebut tetapi secara terang-terangan menyatakan tidak pernah menggunakan Mendeley atau Zotero.
4	Technical Dimension	Use of academic integrity tools (e.g., Turnitin)	Student uses tools such as Turnitin to check originality and revises the work accordingly.	X	Tidak Menggunakan.
5	Technical Dimension	Independent troubleshooting of technical problems	Student identifies and solves technical problems independently when using digital tools.	✓	Menyelesaikan kendala akses/error dengan menggunakan VPN, mengganti browser ke Opera, memperbaiki prompt AI, atau mencari solusi di YouTube.
6	Cognitive Dimension	Critical evaluation of source credibility, relevance, and bias	Student critically evaluates sources (author credibility, journal quality, publication date, potential bias).	✓	Mengevaluasi kredibilitas secara kritis menggunakan SCImago (Q1, Q2), indeks Scopus/Sinta, jumlah kutipan, dan afiliasi penulis.
7	Cognitive Dimension	Strategic use of academic databases and search tools	Student uses search strategies (keywords, filters, Boolean operators) when accessing academic databases.	✓	Menggunakan fitur advanced search dan mengetik kata kunci secara detail beserta filter spesifik untuk hasil yang relevan.

8	Cognitive Dimension	Ability to interpret and synthesise information from multiple digital sources	Student compares, connects, or integrates information from multiple sources during reading or writing.	✓	Menyintesis jurnal dan membandingkan poin-poin penting menggunakan bantuan AI generatif (Claude dan DeepSeek).
9	Cognitive Dimension	Understanding of copyright, plagiarism, and ethical use	Student demonstrates awareness of plagiarism and proper citation practices during writing.	✓	Sangat menyadari bahaya plagiarisme; melakukan parafrase menggunakan Quillbot dan memastikan sitasi akurat dengan mengecek ulang format, DOI, dan tautan.
10	Cognitive Dimension	Navigation of hypertext and complex digital information environments	Student navigates between digital sources effectively (following links, switching tabs, refining searches).	✓	Beralih dengan efektif antara alat Publish or Perish, database jurnal (Elsevier), platform AI (Claude) untuk sintesis, dan Word untuk penulisan akhir.
11	Social-Emotional Dimension	Responsible and ethical use of digital platforms in academic contexts	Student shows responsible behaviour when using digital tools (acknowledging sources, not copying directly).	✓	Menggunakan AI secara etis sesuai panduan pembimbing (tidak membuat data fiktif) dan selalu mencantumkan sitasi.
12	Social-Emotional Dimension	Professional digital communication with supervisors and peers	Student communicates politely and professionally in digital interactions with supervisors or peers.	✓	Berkomunikasi mengenai masalah pengerjaan skripsi dengan dosen pembimbing melalui platform WhatsApp.
13	Social-Emotional Dimension	Self-regulation in the use of AI writing and paraphrasing tools (if observable)	Student uses AI tools responsibly during writing or discussion activities.	✓	AI digunakan sebagai asisten perumus ide, sintesis poin, dan format sitasi, di mana hasil dari AI tersebut selalu ia cross-check ulang dan tulis manual di draf Word.
14	Sociocultural Dimension	Awareness of academic discourse norms and conventions in digital writing	Student uses formal academic language appropriately in digital writing or communication.	X	Meski menyesuaikan struktur dengan pedoman penulisan kampus, penggunaan bahasa akademik formal dalam komunikasi di platform digital tidak diterapkan secara maksimal.
15	Sociocultural Dimension	Critical understanding of power, ideology, and voice in digital texts	Student shows awareness of different viewpoints when discussing or writing about academic topics.	✓	Memperhatikan berbagai sudut pandang (perspektif) dari jurnal yang ada untuk menentukan argumentasi yang paling tepat.
16	Sociocultural	Participation in	Student engages	✓	Merasa bagian dari

	Dimension	academic digital communities as a legitimate member	appropriately in academic digital environments (discussions, feedback sessions).		komunitas global saat menggunakan database internasional dan mencoba menjangkau penulis di ResearchGate (meski tidak aktif dalam interaksi dua arah secara rutin).
17	Developmental Dimension	Progressive growth in digital academic literacy across thesis-writing stages	Student becomes more fluent in using digital tools over time (across multiple observation sessions).	✓	Mengakui ada peningkatan nyata dari cara penggunaan yang tidak terstruktur di awal skripsi, menjadi terstruktur, selektif, dan efektif.
18	Developmental Dimension	Self-directed learning of new tools and digital strategies (awareness → ability)	Student becomes more independent in using digital tools without assistance over time.	✓	Terus belajar alat digital secara mandiri dari forum atau YouTube guna mengefisienkan waktu pengerjaan tesis.
19	Developmental Dimension	Reflective and metacognitive awareness of one's own digital literacy development	Student uses digital tools more strategically (choosing appropriate tools for specific tasks) over time.	✓	Melakukan pembagian penggunaan alat secara strategis: Publish or Perish (awal), Elsevier/Claude (tengah), dan Word (akhir). Sadar perlu terus belajar.
20	Level 1: No Understanding	Unable to identify platforms relevant to thesis research	Student is unable to locate or recognize academic platforms (e.g., databases, Google Scholar) when asked to search for sources.	X	Sudah sangat mengenal berbagai macam database dan mesin telusur akademis sejak tahap awal.
21	Level 2: Low Understanding	Basic awareness but requires constant external assistance	Frequent interruptions, requests for help, or extended hesitation occur when the student encounters academic platforms.	X	Sangat percaya diri dan secara eksplisit menyatakan jarang atau tidak butuh bantuan orang lain untuk hal tersebut.
22	Level 3: Average Understanding	Capable of routine and functional digital task completion independently	Student completes basic tasks (searching sources, importing references, checking similarity) independently.	✓	Sangat mampu menyelesaikan tugas penelusuran, pengunduhan referensi, serta pengecekan sumber secara mandiri.
23	Level 3: Average Understanding	Struggles with complex or unfamiliar features and advanced tool functions	Student hesitates or requires help when using advanced features (complex search filters, tool settings).	X	Sama sekali tidak kesulitan; sangat fasih menggunakan <i>advanced filters</i> .
24	Level 4: High	Demonstrates	Student solves	✓	Mandiri mengatasi

	Level	independence in solving technical issues	technical problems independently using available resources (help menus, tutorials, online searches).		masalah teknis akses (dengan merubah browser, VPN) atau memperbaiki kualitas prompt di AI.
25	Level 4: High Level	Uses academic digital tools effectively and purposefully across thesis stages	Student uses digital tools purposefully for different tasks (searching, writing, referencing).	✓	Mengklasifikasikan <i>tools</i> sesuai tujuan fase penulisan (eksplorasi, analisis referensi, pengeditan final).
26	Level 4: High Level	Begins to strategically integrate multiple tools (skills and knowledge stage)	Student combines multiple tools smoothly during a working session.	✓	Menggabungkan <i>tools</i> untuk pencarian popularitas (Publish or Perish) dengan database akses (Elsevier).
27	Level 5: Advanced Mastery	Strategically integrates multiple digital tools in a seamless academic workflow	Student moves fluidly and self-directedly between multiple academic platforms with no external prompting.	✓	Alur integrasi sempurna: pencarian massal di PoP lalu unduh jurnal kredibel di Elsevier/Sinta kemudian sintesis di Claude kemudian edit manual di Word.
28	Level 5: Advanced Mastery	Performs intuitive and deep critical evaluation of digital sources (advanced critical literacy)	Student evaluates and selects sources critically (comparing perspectives, identifying bias).	✓	Evaluasi sangat berlapis dengan mengecek langsung jumlah sitasi, kuartil SCImago, hingga afiliasi penulisnya sebelum digunakan.
29	Technical Challenges	Limited or unstable internet access; inadequate hardware/software; unfamiliarity with advanced features; absence of institutional access	Technical disruptions (software crashes, login failures, slow loading) occur; student responds independently.	✓	Tantangan terbesar adalah adanya <i>paywall</i> (akses tertutup ke jurnal premium) dari database seperti Elsevier karena ketiadaan langganan dari kampus.
30	Cognitive Challenges	Difficulty evaluating credibility and academic relevance; information overload	Student applies critical source evaluation criteria – or uncritically accepts top-listed results without evaluation.	✓	Mengalami <i>information overload</i> yang memunculkan kesulitan mencari <i>research gap</i> di tengah banyaknya artikel, serta memiliki kecemasan terkait plagiarisme yang tidak disengaja.
31	Social-emotional Challenges	Digital anxiety and avoidance; low digital self-efficacy	Student shows body language, hesitation, or signs of disengagement when confronted with unfamiliar academic digital platforms or tasks.	X	Memiliki self-efficacy dan kemandirian digital yang sangat tinggi.
32	Instructional & Support Gaps	Absence of structured formal training; dependence on informal peer learning and trial-and-error approaches	Student's digital practices reflect formally taught habits or self-taught, exploratory approaches that	✓	Kampus kurang menyediakan akses database premium, dan pembimbing lebih berfokus pada konten sehingga ia terpaksa

			may contain inefficiencies or gaps.		mempelajari seluruh <i>tools</i> digital ini murni secara otodidak.
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OBSERVATION CHECKLIST

Research Questions:

- What types of digital literacy do students use in writing their thesis?
- How do students demonstrate their digital literacy competency levels during their undergraduate thesis writing process?
- What challenges do students face in implementing digital literacy during their thesis writing process?

Subject: FA

No.	Aspect	Observable Indicators	Checklist Items	Checklist (✓ / X)	Notes
1	Technical Dimension	Ability to operate academic digital platforms and tools	Student independently navigates and operates academic digital platforms to complete thesis-related tasks.	✓	Menggunakan Google Scholar, Semantic Scholar, Taylor & Francis, ChatGPT, dan Claude secara mandiri.
2	Technical Dimension	File management, data transfer, and storage practices	Student organizes, stores, and manages digital files systematically (folder structure, file naming, cloud storage, version control).	✓	Menggunakan Google Drive, flashdisk, dan membagi folder secara spesifik (literatur review, draft, revisi, final).
3	Technical Dimension	Use of reference management software (e.g., Mendeley, Zotero)	Student imports, organizes, and uses references using tools such as Mendeley or Zotero.	X	Belum menggunakan Mendeley atau Zotero.
4	Technical Dimension	Use of academic integrity tools (e.g., Turnitin)	Student uses tools such as Turnitin to check originality and revises the work accordingly.	X	Belum menggunakan Turnitin (berencana menggunakannya setelah bab 1-4 selesai).
5	Technical Dimension	Independent troubleshooting of technical problems	Student identifies and solves technical problems independently when using digital tools.	✓	Mengganti SIM card saat sinyal jelek dan menggunakan Sci-Hub untuk mengakses artikel berbayar.
6	Cognitive Dimension	Critical evaluation of source credibility, relevance, and bias	Student critically evaluates sources (author credibility, journal quality, publication date, potential bias).	✓	Mengecek kredibilitas jurnal via SCImago (untuk Scopus) dan Sinta Indonesia. Menolak artikel tanpa nama penulis/afiliasi.
7	Cognitive Dimension	Strategic use of academic databases and search tools	Student uses search strategies (keywords,	✓	Menggunakan filter advanced (nama penulis, publisher,

			filters, Boolean operators) when accessing academic databases.		rentang 5-6 tahun terakhir).
8	Cognitive Dimension	Ability to interpret and synthesise information from multiple digital sources	Student compares, connects, or integrates information from multiple sources during reading or writing.	✓	Membuat tabel perbandingan untuk mengelompokkan penelitian dan mencari celah perbedaan.
9	Cognitive Dimension	Understanding of copyright, plagiarism, and ethical use	Student demonstrates awareness of plagiarism and proper citation practices during writing.	✓	Sadar akan plagiarisme dan melakukan parafrase, meski masih bingung dengan batas parafrase yang aman.
10	Cognitive Dimension	Navigation of hypertext and complex digital information environments	Student navigates between digital sources effectively (following links, switching tabs, refining searches).	✓	Sangat efektif berpindah dari AI ke database jurnal untuk memverifikasi apakah referensi tersebut asli atau halusinasi AI.
11	Social-Emotional Dimension	Responsible and ethical use of digital platforms in academic contexts	Student shows responsible behaviour when using digital tools (acknowledging sources, not copying directly).	✓	Menggunakan AI hanya untuk ide/struktur, lalu memparafrase secara manual.
12	Social-Emotional Dimension	Professional digital communication with supervisors and peers	Student communicates politely and professionally in digital interactions with supervisors or peers.	✓	Berkomunikasi dengan dosen pembimbing menggunakan WhatsApp.
13	Social-Emotional Dimension	Self-regulation in the use of AI writing and paraphrasing tools (if observable)	Student uses AI tools responsibly during writing or discussion activities.	✓	Menyadari AI bisa memberi referensi palsu sehingga ia selalu memverifikasi ulang hasil dari AI.
14	Sociocultural Dimension	Awareness of academic discourse norms and conventions in digital writing	Student uses formal academic language appropriately in digital writing or communication.	✓	Mengubah diksi hasil AI menjadi bahasa akademik (misal: "jenis" menjadi "kategori").
15	Sociocultural Dimension	Critical understanding of power, ideology, and	Student shows awareness of	✓	Menyadari perbedaan sudut

		voice in digital texts	different viewpoints when discussing or writing about academic topics.		pandang tiap penelitian untuk menyusun argumen yang seimbang.
16	Sociocultural Dimension	Participation in academic digital communities as a legitimate member	Student engages appropriately in academic digital environments (discussions, feedback sessions).	X	Belum pernah berinteraksi dengan siapa pun di platform digital akademik (seperti ResearchGate dll).
17	Developmental Dimension	Progressive growth in digital academic literacy across thesis-writing stages	Student becomes more fluent in using digital tools over time (across multiple observation sessions).	✓	Mengalami transisi dari sekadar menggunakan prompt AI dasar menjadi prompt yang lebih detail dan kompleks.
18	Developmental Dimension	Self-directed learning of new tools and digital strategies (awareness → ability)	Student becomes more independent in using digital tools without assistance over time.	✓	Belajar secara otodidak melalui YouTube dan TikTok.
19	Developmental Dimension	Reflective and metacognitive awareness of one's own digital literacy development	Student uses digital tools more strategically (choosing appropriate tools for specific tasks) over time.	✓	Tahu persis alat apa untuk tujuan apa (ChatGPT untuk brainstorming ide, Claude untuk penulisan awal).
20	Level 1: No Understanding	Unable to identify platforms relevant to thesis research	Student is unable to locate or recognize academic platforms (e.g., databases, Google Scholar) when asked to search for sources.	X	Sangat familiar dengan platform database.
21	Level 2: Low Understanding	Basic awareness but requires constant external assistance	Frequent interruptions, requests for help, or extended hesitation occur when the student encounters academic platforms.	X	Beroperasi secara mandiri tanpa butuh bantuan teman.
22	Level 3: Average Understanding	Capable of routine and functional digital task completion independently	Student completes basic tasks (searching sources, importing references, checking	✓	Mampu mencari sumber dan menyusun folder dengan baik.

			similarity) independently.		
23	Level 3: Average Understanding	Struggles with complex or unfamiliar features and advanced tool functions	Student hesitates or requires help when using advanced features (complex search filters, tool settings).	X	Tidak kesulitan, lancar menggunakan advanced search.
24	Level 4: High Level	Demonstrates independence in solving technical issues	Student solves technical problems independently using available resources (help menus, tutorials, online searches).	✓	Menemukan solusi sendiri untuk artikel berbayar (Sci-Hub) dan masalah sinyal internet.
25	Level 4: High Level	Uses academic digital tools effectively and purposefully across thesis stages	Student uses digital tools purposefully for different tasks (searching, writing, referencing).	✓	Menggunakan tools yang tepat sesuai tahapan pengerjaan (ide lalu cari referensi lalu strukturisasi lalu parafrase).
26	Level 4: High Level	Begins to strategically integrate multiple tools (skills and knowledge stage)	Student combines multiple tools smoothly during a working session.	✓	Mengintegrasikan AI dan database pencarian secara halus.
27	Level 5: Advanced Mastery	Strategically integrates multiple digital tools in a seamless academic workflow	Student moves fluidly and self-directedly between multiple academic platforms with no external prompting.	✓	Alur kerjanya kompleks: AI (ide) lalu Database (cek ketersediaan) lalu SCImago (cek kredibilitas) lalu AI (analisis poin) lalu Word (parafrase).
28	Level 5: Advanced Mastery	Performs intuitive and deep critical evaluation of digital sources (advanced critical literacy)	Student evaluates and selects sources critically (comparing perspectives, identifying bias).	✓	Sangat kritis terhadap hasil keluaran AI, selalu memverifikasi keberadaan artikel dan indeks Scopus/Sinta.
29	Technical Challenges	Limited or unstable internet access; inadequate hardware/software; unfamiliarity with advanced features; absence of institutional access	Technical disruptions (software crashes, login failures, slow loading) occur; student responds independently.	✓	Mengalami kendala sinyal internet jelek dan artikel yang terhalang paywall.
30	Cognitive Challenges	Difficulty evaluating credibility and academic relevance; information overload	Student applies critical source evaluation criteria – or uncritically	✓	Ada sedikit kendala kognitif dalam menemukan padanan kata (sinonim) yang

			accepts top-listed results without evaluation.		tepat saat memparafrase kalimat kompleks.
31	Social-emotional Challenges	Digital anxiety and avoidance; low digital self-efficacy	Student shows body language, hesitation, or signs of disengagement when confronted with unfamiliar academic digital platforms or tasks.	✓	Mengalami kelelahan (burnout) dan perlambatan progres karena batasan/limit pada platform AI gratis.
32	Instructional & Support Gaps	Absence of structured formal training; dependence on informal peer learning and trial-and-error approaches	Student's digital practices reflect formally taught habits or self-taught, exploratory approaches that may contain inefficiencies or gaps.	✓	Kurangnya bimbingan formal mengenai alat digital dari kampus; belajar otodidak via TikTok/YouTube; kampus juga kekurangan akses internet yang memadai.

OBSERVATION CHECKLIST

Research Questions:

- What types of digital literacy do students use in writing their thesis?
- How do students demonstrate their digital literacy competency levels during their undergraduate thesis writing process?
- What challenges do students face in implementing digital literacy during their thesis writing process?

Subject: NAN

No.	Aspect	Observable Indicators	Checklist Items	Checklist (✓ / X)	Notes
1	Technical Dimension	Ability to operate academic digital platforms and tools	Student independently navigates and operates academic digital platforms to complete thesis-related tasks.	✓	Menggunakan Google Scholar dan berbagai AI (ChatGPT, Gemini, DeepSeek, Claude) secara mandiri.
2	Technical Dimension	File management, data transfer, and storage practices	Student organizes, stores, and manages digital files systematically (folder structure, file naming, cloud storage, version control).	✓	Menyimpan file di laptop dengan folder spesifik (teori, jurnal). Tidak menggunakan Google Drive, namun mem-backup dengan mengirim file ke diri sendiri atau teman via WhatsApp.
3	Technical Dimension	Use of reference management software (e.g., Mendeley, Zotero)	Student imports, organizes, and uses references using tools such as Mendeley or Zotero.	X	Sempat mengunduh Zotero tetapi menyerah karena tidak tahu cara pakainya. Sama sekali tidak menggunakan Mendeley. Daftar pustaka dibantu oleh ChatGPT.
4	Technical Dimension	Use of academic integrity tools (e.g., Turnitin)	Student uses tools such as Turnitin to check originality and revises the work accordingly.	X	Menyatakan belum pernah memakai Turnitin sama sekali.
5	Technical Dimension	Independent troubleshooting of technical problems	Student identifies and solves technical problems independently when using digital tools.	✓	Mengakali limitasi waktu penggunaan AI (batas harian) dengan cara berganti-ganti platform (dari ChatGPT ke Claude atau Gemini).
6	Cognitive Dimension	Critical evaluation of source credibility, relevance, and bias	Student critically evaluates sources (author credibility, journal quality, publication date, potential bias).	✓	Evaluasi sangat sederhana: mencari jurnal tahun terbaru (2020-2026) dan melihat logo penerbit. Secara eksplisit menolak mengecek indeks Scopus.
7	Cognitive Dimension	Strategic use of academic databases and search tools	Student uses search strategies (keywords, filters, Boolean operators) when accessing	✓	Menerapkan filter tahun dan melakukan pencarian kata kunci secara bertahap (tidak langsung meng-copy full judul).

			academic databases.		
8	Cognitive Dimension	Ability to interpret and synthesise information from multiple digital sources	Student compares, connects, or integrates information from multiple sources during reading or writing.	✓	Menggabungkan poin-poin penting, meskipun proses sintesis ini sangat bergantung pada bantuan AI (meminta ChatGPT menyimpulkan isi jurnal).
9	Cognitive Dimension	Understanding of copyright, plagiarism, and ethical use	Student demonstrates awareness of plagiarism and proper citation practices during writing.	✓	Menyadari kewajiban mencantumkan sumber/sitasi dan melakukan parafrase dibantu oleh alat seperti Quillbot.
10	Cognitive Dimension	Navigation of hypertext and complex digital information environments	Student navigates between digital sources effectively (following links, switching tabs, refining searches).	✓	Membaca abstrak terlebih dahulu, lalu menelusuri artikel terkait dari daftar referensi untuk menemukan sumber yang pas.
11	Social-Emotional Dimension	Responsible and ethical use of digital platforms in academic contexts	Student shows responsible behaviour when using digital tools (acknowledging sources, not copying directly).	✓	Mengikuti anjuran dosen pembimbing: AI boleh dipakai asal diparafrase ulang dan nama tokoh/kutipan yang dihasilkan AI dicari kebenaran aslinya di Google Scholar.
12	Social-Emotional Dimension	Professional digital communication with supervisors and peers	Student communicates politely and professionally in digital interactions with supervisors or peers.	✓	Berkomunikasi via WhatsApp dengan dosen pembimbing sekadar untuk mengatur jadwal bimbingan tatap muka.
13	Social-Emotional Dimension	Self-regulation in the use of AI writing and paraphrasing tools (if observable)	Student uses AI tools responsibly during writing or discussion activities.	✓	Sadar bahwa AI tidak bisa dipercaya 100% dan kadang memberikan referensi palsu, sehingga ia berusaha melakukan verifikasi silang (cross-check).
14	Sociocultural Dimension	Awareness of academic discourse norms and conventions in digital writing	Student uses formal academic language appropriately in digital writing or communication.	✓	Menyesuaikan gaya selingkung penulisan dengan melihat skripsi kating atau bertanya langsung ke dosen.
15	Sociocultural Dimension	Critical understanding of power, ideology, and voice in digital texts	Student shows awareness of different viewpoints when discussing or writing about academic topics.	✓	Menyadari adanya perbedaan pendapat antar ahli dalam jurnal dan memilih pandangan yang "paling nyambung/banyak intinya" dengan skripsinya.
16	Sociocultural	Participation in	Student engages	X	Tidak pernah menggunakan

	Dimension	academic digital communities as a legitimate member	appropriately in academic digital environments (discussions, feedback sessions).		ResearchGate atau Academia.edu. Interaksi sebatas diskusi informal di WA/Instagram/Telegram.
17	Developmental Dimension	Progressive growth in digital academic literacy across thesis-writing stages	Student becomes more fluent in using digital tools over time (across multiple observation sessions).	✓	Merasa ada perkembangan kemampuan; kini lebih terbiasa membuat prompt AI yang baik dibanding saat awal skripsi.
18	Developmental Dimension	Self-directed learning of new tools and digital strategies (awareness → ability)	Student becomes more independent in using digital tools without assistance over time.	✓	Belajar mencari template prompt dan tutorial penggunaan AI secara mandiri dari TikTok dan YouTube.
19	Developmental Dimension	Reflective and metacognitive awareness of one's own digital literacy development	Student uses digital tools more strategically (choosing appropriate tools for specific tasks) over time.	✓	Mampu merefleksikan kelemahan dirinya, yakni menyadari bahwa ia "terlalu bergantung pada AI" dan merasa perlu membatasi hal tersebut.
20	Level 1: No Understanding	Unable to identify platforms relevant to thesis research	Student is unable to locate or recognize academic platforms (e.g., databases, Google Scholar) when asked to search for sources.	X	Sudah mengenali alat dasar seperti Google Scholar dan berbagai AI generatif.
21	Level 2: Low Understanding	Basic awareness but requires constant external assistance	Frequent interruptions, requests for help, or extended hesitation occur when the student encounters academic platforms.	X	Jarang meminta bantuan kawan secara teknis (minta bantuan lebih ke isi/konten skripsi).
22	Level 3: Average Understanding	Capable of routine and functional digital task completion independently	Student completes basic tasks (searching sources, importing references, checking similarity) independently.	✓	Mampu melakukan rutinitas mencari jurnal, membaca abstrak, dan menyuruh AI merangkum secara mandiri.
23	Level 3: Average Understanding	Struggles with complex or unfamiliar features and advanced tool functions	Student hesitates or requires help when using advanced features (complex search filters, tool settings).	✓	Menyerah saat mencoba fitur kompleks seperti reference manager (Zotero/Mendeley) karena merasa "susah nak belajar itu".

24	Level 4: High Level	Demonstrates independence in solving technical issues	Student solves technical problems independently using available resources (help menus, tutorials, online searches).	✓	Bisa mengatasi paywall jurnal dengan memakai Sci-Hub, dan mengatasi error/limit AI dengan berpindah ke AI kompetitor.
25	Level 4: High Level	Uses academic digital tools effectively and purposefully across thesis stages	Student uses digital tools purposefully for different tasks (searching, writing, referencing).	✓	Menggunakan tools secara situasional: Google Scholar untuk mencari, AI untuk brainstorming teori.
26	Level 4: High Level	Begins to strategically integrate multiple tools (skills and knowledge stage)	Student combines multiple tools smoothly during a working session.	✓	Mampu mengintegrasikan pencarian di Google Scholar, pemahaman isi di AI, dan parafrase di Quillbot.
27	Level 5: Advanced Mastery	Strategically integrates multiple digital tools in a seamless academic workflow	Student moves fluidly and self-directedly between multiple academic platforms with no external prompting.	✓	Alur kerjanya berputar antara: Cari di Google Scholar lalu Rangkum di ChatGPT lalu Verifikasi balik hasil ChatGPT ke Google Scholar lalu Parafrase Quillbot.
28	Level 5: Advanced Mastery	Performs intuitive and deep critical evaluation of digital sources (advanced critical literacy)	Student evaluates and selects sources critically (comparing perspectives, identifying bias).	X	Tidak melakukan evaluasi mendalam terhadap literatur akademiknya (menolak mengecek Scopus). Cara ia mengevaluasi adalah dengan melempar satu prompt ke 3 AI berbeda, lalu memilih jawaban AI mana yang paling "masuk akal".
29	Technical Challenges	Limited or unstable internet access; inadequate hardware/software; unfamiliarity with advanced features; absence of institutional access	Technical disruptions (software crashes, login failures, slow loading) occur; student responds independently.	✓	Tantangan teknis sangat banyak: laptop tiba-tiba mati/rusak (hilang data), sinyal internet jelek, limit kuota AI, hingga paywall (Taylor & Francis berbayar).
30	Cognitive Challenges	Difficulty evaluating credibility and academic relevance; information overload	Student applies critical source evaluation criteria – or uncritically accepts top-listed results without evaluation.	✓	Mengalami kesulitan kognitif yang tinggi saat harus menggabungkan dua pandangan teori yang berbeda dari beberapa sumber, sehingga sangat bergantung pada ChatGPT untuk menengahi perbedaan tersebut.
31	Social-emotional Challenges	Digital anxiety and avoidance; low digital self-efficacy	Student shows body language, hesitation, or signs of disengagement when confronted with unfamiliar academic digital	✓	Merasa "buntu", putus asa, dan kewalahan ketika AI memberikan jawaban halusinasi/ngawur yang tidak sesuai permintaannya. Memiliki beban psikologis terkait ketakutan melakukan plagiarisme tak

			platforms or tasks.		disengaja.
32	Instructional & Support Gaps	Absence of structured formal training; dependence on informal peer learning and trial-and-error approaches	Student's digital practices reflect formally taught habits or self-taught, exploratory approaches that may contain inefficiencies or gaps.	✓	Pernah diajarkan dasarnya di kelas, namun lupa cara memanfaatkan akses perpustakaan kampus. Pembelajaran praktisnya sepenuhnya mengandalkan tutorial TikTok, YouTube, dan sedikit instruksi prompt dari Dosen Pembimbing.

OBSERVATION CHECKLIST

Research Questions:

- What types of digital literacy do students use in writing their thesis?
- How do students demonstrate their digital literacy competency levels during their undergraduate thesis writing process?
- What challenges do students face in implementing digital literacy during their thesis writing process?

Subject: RM

No.	Aspect	Observable Indicators	Checklist Items	Checklist (✓ / X)	Notes
1	Technical Dimension	Ability to operate academic digital platforms and tools	Student independently navigates and operates academic digital platforms to complete thesis-related tasks.	✓	Menggunakan Microsoft Word, Google Drive, Quillbot, ChatGPT, SCImago, dan Claude AI secara mandiri.
2	Technical Dimension	File management, data transfer, and storage practices	Student organizes, stores, and manages digital files systematically (folder structure, file naming, cloud storage, version control).	✓	Menyimpan file draf penulisan di Word, sedangkan untuk data-data mentah (seperti hasil interview) disimpan di Google Drive.
3	Technical Dimension	Use of reference management software (e.g., Mendeley, Zotero)	Student imports, organizes, and uses references using tools such as Mendeley or Zotero.	X	Tidak memakai alat reference manager karena merasa bingung/kesulitan. Sitasi dan daftar pustaka dilakukan sepenuhnya secara manual (kadang dibantu ChatGPT).
4	Technical Dimension	Use of academic integrity tools (e.g., Turnitin)	Student uses tools such as Turnitin to check originality and revises the work accordingly.	X	Belum pernah menggunakan Turnitin saat diwawancarai.
5	Technical Dimension	Independent troubleshooting of technical problems	Student identifies and solves technical problems independently when using digital tools.	✓	Ketika server AI down atau terkena limit, solusi mandiriya adalah "menunggu sampai besok" untuk menggunakannya lagi, atau beralih akun.
6	Cognitive Dimension	Critical evaluation of source credibility, relevance, and bias	Student critically evaluates sources (author credibility, journal quality, publication date, potential bias).	✓	Mengecek kredibilitas di SCImago. Namun jika sedang malas, ia hanya melihat nama jurnalnya (seperti "University" atau "International Journal").
7	Cognitive Dimension	Strategic use of academic databases and search tools	Student uses search strategies (keywords, filters, Boolean operators) when accessing academic databases.	✓	Menggunakan filter tahun untuk membatasi pencarian pada "5 tahun terakhir" agar mendapat jurnal terbaru.
8	Cognitive	Ability to interpret	Student compares,	✓	Mensintesis jurnal

	Dimension	and synthesise information from multiple digital sources	connects, or integrates information from multiple sources during reading or writing.		dengan bantuan AI (mengunggah jurnal ke ChatGPT dan menyuruh AI menjelaskan maksud pembahasan jurnal tersebut).
9	Cognitive Dimension	Understanding of copyright, plagiarism, and ethical use	Student demonstrates awareness of plagiarism and proper citation practices during writing.	✓	Menyadari adanya aturan etis. Menghindari plagiarisme dengan memakai "bahasa sendiri" dan menggunakan fitur parafrase dari Quillbot.
10	Cognitive Dimension	Navigation of hypertext and complex digital information environments	Student navigates between digital sources effectively (following links, switching tabs, refining searches).	✓	Beralih dari Google Scholar/Taylor & Francis, lalu membawa jurnal tersebut ke ChatGPT untuk diolah isinya.
11	Social-Emotional Dimension	Responsible and ethical use of digital platforms in academic contexts	Student shows responsible behaviour when using digital tools (acknowledging sources, not copying directly).	✓	Menggunakan AI secara sadar berdasarkan saran dan rekomendasi dari teman-teman serta anjuran dosen pembimbing.
12	Social-Emotional Dimension	Professional digital communication with supervisors and peers	Student communicates politely and professionally in digital interactions with supervisors or peers.	✓	Berinteraksi dan saling bertanya mengenai cara penggunaan AI dan penulisan skripsi dengan teman sebayanya.
13	Social-Emotional Dimension	Self-regulation in the use of AI writing and paraphrasing tools (if observable)	Student uses AI tools responsibly during writing or discussion activities.	✓	Menyadari bahwa kadang AI memberikan informasi bias atau mengikuti nada penulisan mahasiswa yang salah (hallucination). Ia sadar perlu memverifikasi ulang hasil AI tersebut.
14	Sociocultural Dimension	Awareness of academic discourse norms and conventions in digital writing	Student uses formal academic language appropriately in digital writing or communication.	✓	Menerapkan tata aturan penulisan yang sudah ia pelajari secara berjenjang dari sekolah dan dibantu Quillbot untuk penulisan skripsi di kampus.
15	Sociocultural Dimension	Critical understanding of power, ideology, and voice in digital texts	Student shows awareness of different viewpoints when discussing or writing about academic topics.	X	Menjawab "Itu bingung sih ya" ketika ditanya apakah ia melihat dan menggunakan sudut pandang berbeda dari artikel jurnal untuk skripsinya.
16	Sociocultural Dimension	Participation in academic digital communities as a legitimate member	Student engages appropriately in academic digital environments (discussions, feedback sessions).	X	Menyatakan secara eksplisit "Enggak sih" saat ditanya apakah ia merasa menjadi bagian dari komunitas akademik digital. Interaksi hanya sebatas tanya jawab informal di

					Instagram.
17	Developmental Dimension	Progressive growth in digital academic literacy across thesis-writing stages	Student becomes more fluent in using digital tools over time (across multiple observation sessions).	✓	Mengakui ada perkembangan dari awal yang "tidak tahu" (hanya sebatas teman), menjadi semakin terbiasa dan tahu cara kerja AI seiring waktu pengerjaan.
18	Developmental Dimension	Self-directed learning of new tools and digital strategies (awareness → ability)	Student becomes more independent in using digital tools without assistance over time.	✓	Belajar membuat prompt instruksi AI secara mandiri maupun otodidak dengan menonton video di YouTube dan TikTok.
19	Developmental Dimension	Reflective and metacognitive awareness of one's own digital literacy development	Student uses digital tools more strategically (choosing appropriate tools for specific tasks) over time.	✓	Mampu merefleksikan kelemahannya, yaitu butuh perbaikan dalam menyusun instruksi/prompt AI yang tepat ("konsepnya dari kita, tinggal dijalankan ke AI").
20	Level 1: No Understanding	Unable to identify platforms relevant to thesis research	Student is unable to locate or recognize academic platforms (e.g., databases, Google Scholar) when asked to search for sources.	X	Sangat tahu berbagai jenis AI (ChatGPT, Claude) dan platform jurnal (Taylor & Francis, SCImago).
21	Level 2: Low Understanding	Basic awareness but requires constant external assistance	Frequent interruptions, requests for help, or extended hesitation occur when the student encounters academic platforms.	X	Cukup mandiri dalam penggunaan platform utama meski untuk urusan sitasi/Mendeley ia menyerah dan kembali ke manual.
22	Level 3: Average Understanding	Capable of routine and functional digital task completion independently	Student completes basic tasks (searching sources, importing references, checking similarity) independently.	✓	Mampu melakukan rutinitas pencarian database dan prompting AI tanpa bantuan.
23	Level 3: Average Understanding	Struggles with complex or unfamiliar features and advanced tool functions	Student hesitates or requires help when using advanced features (complex search filters, tool settings).	✓	Kesusahan dalam mengintegrasikan dua teori yang berbeda, dan kesulitan mempelajari fitur kompleks dari alat reference management seperti Mendeley/Zotero.
24	Level 4: High Level	Demonstrates independence in solving technical issues	Student solves technical problems independently using available resources (help menus, tutorials, online searches).	✓	Bisa mengatasi limit harian AI dengan membuat akun baru atau beralih platform (mencari celah fitur gratis).

25	Level 4: High Level	Uses academic digital tools effectively and purposefully across thesis stages	Student uses digital tools purposefully for different tasks (searching, writing, referencing).	✓	Menggunakan alat secara proporsional sesuai peruntukannya (Quillbot untuk parafrase, SCImago untuk verifikasi jurnal, Word untuk penulisan).
26	Level 4: High Level	Begins to strategically integrate multiple tools (skills and knowledge stage)	Student combines multiple tools smoothly during a working session.	✓	Bisa mengombinasikan pencarian dari Google Scholar ke ChatGPT untuk dibaca isi pembahasannya.
27	Level 5: Advanced Mastery	Strategically integrates multiple digital tools in a seamless academic workflow	Student moves fluidly and self-directedly between multiple academic platforms with no external prompting.	X	Alur kerjanya terhambat pada poin sitasi dan referensi. Ia memutus alur otomatisasi (seamless) karena merasa bingung pakai Mendeley/Zotero, sehingga harus memindahkan data secara manual.
28	Level 5: Advanced Mastery	Performs intuitive and deep critical evaluation of digital sources (advanced critical literacy)	Student evaluates and selects sources critically (comparing perspectives, identifying bias).	X	Meskipun sesekali menggunakan SCImago, evaluasi sumber yang sering ia lakukan cenderung superficial (asal ada tulisan University atau International maka dianggap kredibel), ditambah lagi ia kesulitan menggabungkan dua teori dari ide/sudut pandang berbeda.
29	Technical Challenges	Limited or unstable internet access; inadequate hardware/software; unfamiliarity with advanced features; absence of institutional access	Technical disruptions (software crashes, login failures, slow loading) occur; student responds independently.	✓	Tantangan yang paling dirasakan adalah status alat yang berbayar (akses terlimit) baik dari sisi database jurnal maupun batasan limit harian platform AI (seperti ChatGPT).
30	Cognitive Challenges	Difficulty evaluating credibility and academic relevance; information overload	Student applies critical source evaluation criteria – or uncritically accepts top-listed results without evaluation.	✓	Sangat kesulitan ("harus mikir, karena kita takut salah") pada saat harus menggabungkan dua teori yang berbeda dari sumber-sumber bacaan untuk menjadi argumen yang jelas di skripsinya.
31	Social-emotional Challenges	Digital anxiety and avoidance; low digital self-efficacy	Student shows body language, hesitation, or signs of disengagement when confronted with unfamiliar academic digital platforms or tasks.	✓	Memiliki kecemasan tinggi (anxiety); ia merasa 50-50 percaya pada alat digital dan cemas karena takut terlalu bergantung pada AI dan takut terdeteksi mesin Turnitin di masa depan.
32	Instructional & Support Gaps	Absence of structured formal training; dependence on	Student's digital practices reflect formally taught	✓	Kampus (melalui mata kuliah tertentu) hanya menjelaskan cara pakai

		informal peer learning and trial-and-error approaches	habits or self-taught, exploratory approaches that may contain inefficiencies or gaps.		secara general (teori), namun mahasiswa lebih mengandalkan YouTube, TikTok, dan teman sejawat untuk pembelajaran cara pakainya secara praktis di lapangan.
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OBSERVATION CHECKLIST

Research Questions:

- What types of digital literacy do students use in writing their thesis?
- How do students demonstrate their digital literacy competency levels during their undergraduate thesis writing process?
- What challenges do students face in implementing digital literacy during their thesis writing process?

Subject: MAN

No	Aspect	Observable Indicators	Checklist Items	Checklist (✓ / X)	Notes
1	Technical Dimension	Ability to operate academic digital platforms and tools	Student independently navigates and operates academic digital platforms to complete thesis-related tasks.	✓	Sangat mahir mengoperasikan Google Scholar, Mendeley, Microsoft Word, ChatGPT, Turnitin, Grammarly, dan Quillbot.
2	Technical Dimension	File management, data transfer, and storage practices	Student organizes, stores, and manages digital files systematically (folder structure, file naming, cloud storage, version control).	✓	Sangat sistematis; membagi folder untuk artikel, instrumen, bab per bab, dan data wawancara. Memiliki 3 salinan file, serta rutin melakukan backup ke Google Drive dan smartphone.
3	Technical Dimension	Use of reference management software (e.g., Mendeley, Zotero)	Student imports, organizes, and uses references using tools such as Mendeley or Zotero.	✓	Menggunakan Mendeley sejak awal untuk menyimpan PDF, membuat sitasi otomatis di Word, dan menyusun daftar pustaka.
4	Technical Dimension	Use of academic integrity tools (e.g., Turnitin)	Student uses tools such as Turnitin to check originality and revises the work accordingly.	✓	Secara rutin menggunakan Turnitin untuk mengecek similarity tiap kali selesai mengerjakan satu bab dan memparafrase ulang bagian yang bermasalah.
5	Technical Dimension	Independent troubleshooting of technical problems	Student identifies and solves technical problems independently when using digital tools.	✓	Mampu memecahkan masalah (misal: plugin Mendeley error di Word) dengan mengotak-atik sendiri, mencari dokumentasi resmi, atau melihat tutorial di YouTube sebelum bertanya ke teman.
6	Cognitive Dimension	Critical evaluation of source credibility, relevance, and bias	Student critically evaluates sources (author credibility, journal quality, publication date, potential bias).	✓	Mengevaluasi artikel dengan ketat: memastikan jurnal terpercaya, memiliki DOI, penerbit jelas, melalui peer-review, metodologi kuat, dan tahun publikasi terbaru.
7	Cognitive Dimension	Strategic use of academic databases and	Student uses search strategies (keywords,	✓	Sangat strategis; tidak hanya memakai kata kunci spesifik dan filter tahun, tetapi juga

		search tools	filters, Boolean operators) when accessing academic databases.		mahir menggunakan Boolean operators (AND, OR) untuk mengelola hasil pencarian.
8	Cognitive Dimension	Ability to interpret and synthesise information from multiple digital sources	Student compares, connects, or integrates information from multiple sources during reading or writing.	✓	Mensintesis dengan mencatat poin penting dari berbagai artikel, mengelompokkan kesamaan ke dalam satu tema, dan menjelaskan perbedaannya di dalam pembahasan.
9	Cognitive Dimension	Understanding of copyright, plagiarism, and ethical use	Student demonstrates awareness of plagiarism and proper citation practices during writing.	✓	Sangat sadar akan plagiarisme. Selalu mencatat sumber sejak awal, memparafrase dengan bahasa sendiri, dan rutin cek similarity via Turnitin.
10	Cognitive Dimension	Navigation of hypertext and complex digital information environments	Student navigates between digital sources effectively (following links, switching tabs, refining searches).	✓	Menggunakan teknik "snowballing"; menavigasi dari Google Scholar, menemukan satu artikel relevan, lalu melacak referensi dari daftar pustaka artikel tersebut untuk mencari sumber tambahan.
11	Social-Emotional Dimension	Responsible and ethical use of digital platforms in academic contexts	Student shows responsible behaviour when using digital tools (acknowledging sources, not copying directly).	✓	Menggunakan ChatGPT secara etis; bukan untuk menyalin jawaban mentah, melainkan untuk memahami konsep, lalu memverifikasi ulang (cross-check) informasi tersebut dengan sumber akademik yang valid.
12	Social-Emotional Dimension	Professional digital communication with supervisors and peers	Student communicates politely and professionally in digital interactions with supervisors or peers.	✓	Sangat profesional saat menghubungi dosen pembimbing via WhatsApp: menggunakan bahasa formal, memperkenalkan diri, menjelaskan tujuan, dan menghindari menghubungi di malam hari/akhir pekan.
13	Social-Emotional Dimension	Self-regulation in the use of AI writing and paraphrasing tools (if observable)	Student uses AI tools responsibly during writing or discussion activities.	✓	Meregulasi penggunaan AI (ChatGPT/Quillbot) sebatas sebagai alat bantu teori dan revisi grammar, serta secara mandiri ingin lebih mendalami etika akademik penggunaan AI.
14	Sociocultural Dimension	Awareness of academic discourse norms and conventions in digital writing	Student uses formal academic language appropriately in digital writing or communication.	✓	Menerapkan gaya selingkung TBI, format APA style untuk referensi, dan memakai bahasa akademik formal yang terus ia perbaiki sesuai revisi dosen pembimbing.
15	Sociocultural Dimension	Critical understanding of	Student shows awareness of	✓	Kritis terhadap perbedaan hasil penelitian. Ia tidak

		power, ideology, and voice in digital texts	different viewpoints when discussing or writing about academic topics.		hanya menerima satu pendapat, melainkan membandingkan konteks subjek penelitian sebelum menarik kesimpulan agar argumennya seimbang dan kuat.
16	Sociocultural Dimension	Participation in academic digital communities as a legitimate member	Student engages appropriately in academic digital environments (discussions, feedback sessions).	✓	Berpartisipasi aktif di ResearchGate: ia pernah meminta akses full-text artikel langsung ke penulisnya dan membaca forum diskusi peneliti internasional, sehingga merasa menjadi bagian dari komunitas akademik.
17	Developmental Dimension	Progressive growth in digital academic literacy across thesis-writing stages	Student becomes more fluent in using digital tools over time (across multiple observation sessions).	✓	Berkembang drastis dari yang awalnya hanya tahu Google dan Word, menjadi fasih menggunakan ekosistem digital akademik (Mendeley, Turnitin, AI tools, Cloud storage).
18	Developmental Dimension	Self-directed learning of new tools and digital strategies (awareness → ability)	Student becomes more independent in using digital tools without assistance over time.	✓	Belajar Mendeley, ChatGPT, dan digital tools lainnya secara otodidak lewat YouTube karena kurangnya pendalaman materi di kelas perkuliahan.
19	Developmental Dimension	Reflective and metacognitive awareness of one's own digital literacy development	Student uses digital tools more strategically (choosing appropriate tools for specific tasks) over time.	✓	Memiliki refleksi tingkat tinggi; tahu mana tools yang dipakai di tahap awal (pencarian), tengah (penulisan/Mendeley), dan akhir (revisi/Turnitin/Grammarly). Sadar perlu belajar evaluasi kritis yang lebih dalam lagi.
20	Level 1: No Understanding	Unable to identify platforms relevant to thesis research	Student is unable to locate or recognize academic platforms (e.g., databases, Google Scholar) when asked to search for sources.	X	Sangat mengenali ekosistem platform akademik (Google Scholar, Academia.edu, ResearchGate, Mendeley).
21	Level 2: Low Understanding	Basic awareness but requires constant external assistance	Frequent interruptions, requests for help, or extended hesitation occur when the student encounters academic platforms.	X	Hanya di tahap awal ia butuh bantuan; sekarang ia sudah mandiri dan jarang meminta bantuan kecuali stuck dengan masalah teknis.
22	Level 3: Average Understanding	Capable of routine and functional digital task	Student completes basic tasks (searching	✓	Mampu mencari sumber, menyimpan di Google Drive, dan menjalankan proses sitasi

		completion independently	sources, importing references, checking similarity) independently.		di Mendeley secara mandiri.
23	Level 3: Average Understanding	Struggles with complex or unfamiliar features and advanced tool functions	Student hesitates or requires help when using advanced features (complex search filters, tool settings).	✓	Meski mahir, kadang ia masih merasa kurang yakin (struggle) saat menggunakan database internasional yang sangat kompleks atau saat sinkronisasi pengaturan sitasi tingkat lanjut di Mendeley.
24	Level 4: High Level	Demonstrates independence in solving technical issues	Student solves technical problems independently using available resources (help menus, tutorials, online searches).	✓	Memecahkan masalah (misal: plugin Mendeley tidak muncul) dengan mencari solusinya sendiri lewat dokumentasi resmi dan video tutorial YouTube.
25	Level 4: High Level	Uses academic digital tools effectively and purposefully across thesis stages	Student uses digital tools purposefully for different tasks (searching, writing, referencing).	✓	Penggunaan alat dipetakan dengan rapi: Google Scholar (Awal), Mendeley+Word+ChatGPT (Tengah), Grammarly+Turnitin (Akhir).
26	Level 4: High Level	Begins to strategically integrate multiple tools (skills and knowledge stage)	Student combines multiple tools smoothly during a working session.	✓	Bisa mengombinasikan search engine, reference manager, dan word processor secara konstan.
27	Level 5: Advanced Mastery	Strategically integrates multiple digital tools in a seamless academic workflow	Student moves fluidly and self-directedly between multiple academic platforms with no external prompting.	✓	Alur kerjanya terkoordinasi secara sempurna dan saling mendukung (seamless): Scholar (Cari) lalu Mendeley (Kelola) lalu Word (Tulis) dibantu ChatGPT (Teori) lalu Grammarly (Bahasa) lalu Turnitin (Similarity).
28	Level 5: Advanced Mastery	Performs intuitive and deep critical evaluation of digital sources (advanced critical literacy)	Student evaluates and selects sources critically (comparing perspectives, identifying bias).	✓	Sangat kritis: ia tidak hanya melihat tahun, tapi menilai apakah ada metodologi penelitian yang jelas, peer-review, kualitas argumen, dan membandingkannya bila menemukan dua teori jurnal yang berseberangan.
29	Technical Challenges	Limited or unstable internet access; inadequate hardware/software ; unfamiliarity with advanced features; absence of institutional access	Technical disruptions (software crashes, login failures, slow loading) occur; student responds independently.	✓	Mengalami hambatan teknis berupa internet tidak stabil, performa laptop yang lambat (karena membuka terlalu banyak file), insiden data hilang karena lupa save, dan adanya paywall jurnal tanpa akses kampus.
30	Cognitive	Difficulty	Student applies	✓	Mengalami information

	Challenges	evaluating credibility and academic relevance; information overload	critical source evaluation criteria – or uncritically accepts top-listed results without evaluation.		overload (terlalu banyak hasil pencarian yang membingungkan), kesulitan merangkai ide dari berbagai jurnal yang bertentangan, dan kesulitan memparafrase kalimat tanpa merubah maknanya.
31	Social-emotional Challenges	Digital anxiety and avoidance; low digital self-efficacy	Student shows body language, hesitation, or signs of disengagement when confronted with unfamiliar academic digital platforms or tasks.	✓	Pernah merasa kewalahan/putus asa saat teknis perangkat terganggu ditambah revisi menumpuk. Memiliki kecemasan (khawatir) terkait kesalahan format sitasi atau jika tingkat Turnitin-nya merah.
32	Instructional & Support Gaps	Absence of structured formal training; dependence on informal peer learning and trial-and-error approaches	Student's digital practices reflect formally taught habits or self-taught, exploratory approaches that may contain inefficiencies or gaps.	✓	Kampus memang memberikan pelatihan dasar, namun tidak mendalam ("kurang belajar waktu di kampus"), ditambah minimnya akses institusi ke jurnal berbayar. Ini memaksanya sangat bergantung pada pembelajaran otodidak (YouTube).

APPENDIX 6 DATA OF DOCUMENT ANALYSIS

Document Checklist

Thesis: DFH

Title: The Influence of AI on the Learning Habits of English Tadris Study Program Students

No.	Theory	Aspect	Indicators	Checklist (✓)	Catatan & Bukti dari Dokumen
RQ 1 – Types of Digital Literacy Used in Thesis Writing					
1	Ng (2012)	Technical	Evidence of Tool-Assisted Referencing	✓	Daftar pustaka dan sitasi <i>in-text</i> terlihat sangat konsisten dan terformat dengan baik (seperti gaya APA), mengindikasikan kemungkinan penggunaan <i>reference manager</i> (Mendeley/Zotero).
2	Ng (2012)	Technical	File Organisation & Versioning	N/A	Tidak dapat dievaluasi (hanya ada satu file dokumen akhir, tidak ada draf sebelumnya).
3	Ng (2012)	Technical	Use of Academic Integrity Tools	N/A	Tidak ada lampiran hasil laporan Turnitin/cek similaritas.
4	Ng (2012)	Technical	Formatting and Technical Control	✓	Format dokumen rapi dan konsisten, terlihat pada penggunaan <i>heading</i> yang terstruktur (Bab, Sub-bab) dan penyusunan tabel.
5	Ng (2012)	Technical	Evidence of Independent Problem-Solving	N/A	Tidak dapat dievaluasi tanpa melihat riwayat revisi/komentar pembimbing.
6	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive	Source Credibility & Diversity	✓	Sumber yang digunakan sangat kredibel dan terbaru (mayoritas jurnal <i>peer-reviewed</i> terbitan 2024-2026 seperti Waluyo, Dakhi, Qin).
7	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive	Depth of Argumentation	✓	Penulis tidak sekadar mendeskripsikan, tetapi membangun argumen tentang urgensi penelitian secara mendalam di Latar Belakang (Bab 1).
8	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive	Quality of Synthesis	✓	Bab 2 mensintesis berbagai penelitian terdahulu dengan baik (mengelompokkan dampak positif dan negatif penggunaan AI).
9	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive	Citation Accuracy & Ethical Use	✓	Sitasi selaras dengan referensi dan atribusi ke penulis asli jelas.
10	Bawden (2001)	Cognitive	Evidence of Strategic Searching (Indirect)	✓	Penggunaan literatur yang sangat spesifik tentang "AI dalam pembelajaran Bahasa Inggris" menunjukkan strategi pencarian yang terarah.
11	Ng (2012)	Social-Emotional	Citation & Attribution Accuracy	✓	Cara mengutip pendapat ahli dan penelitian terdahulu dilakukan dengan kaidah yang tepat.
12	Ng (2012)	Social-Emotional	Plagiarism Indicators	N/A	Tidak dapat dipastikan tanpa <i>similarity report</i> .
13	Ng (2012)	Social-Emotional	AI Use Indicators (Indirect)	✓	Alur tulisan natural dan terintegrasi dengan baik ke konteks akademis lokal (IAIN Curup); tidak terlihat tanda-tanda halusinasi AI yang kasar.
14	Ng (2012)	Social-Emotional	Supervisor Feedback	N/A	Tidak ada dokumen <i>feedback</i> pembimbing.

15	Kucer (2005)	Sociocultural	Academic Writing Conventions	✓	Struktur sesuai standar skripsi/proposal (Bab I: Pendahuluan, Bab II: Kajian Pustaka, Bab III: Metodologi) dengan gaya bahasa formal.
16	Kucer (2005)	Sociocultural	Critical Engagement	✓	Penulis menunjukkan sikap kritis terhadap literatur terdahulu untuk menemukan <i>research gap</i> (celah penelitian).
17	Kucer (2005)	Sociocultural	Diversity of Perspectives	✓	Membahas perspektif bahwa AI memiliki dampak ganda: transformasi kebiasaan belajar yang positif maupun negatif.
18	Kucer (2005)	Sociocultural	Scholarly Voice	✓	Penulis memposisikan dirinya (suara akademisnya) untuk menawarkan solusi "mixed-methods" guna menutupi celah penelitian sebelumnya.
19-21	Kucer (2005); Martin (2005)	Developmental	Seluruh indikator dimensi ini	N/A	Dimensi ini memerlukan perbandingan antara draf awal dan draf akhir. Tidak ada draf versi terdahulu yang dilampirkan.
RQ 2 – Demonstration of Digital Literacy Competency Levels					
22	Ng (2012)	Level 1	No Understanding		<i>Tidak ditandai (kemampuan mahasiswa berada di atas level ini).</i>
23	Ng (2012); Martin (2005)	Level 2	Low Understanding		<i>Tidak ditandai (tidak ada error format yang persisten).</i>
24	Ng (2012); Gilster (1997)	Level 3	Referencing Consistency	✓	Format referensi di bagian <i>Bibliography</i> sangat konsisten.
25	Ng (2012); Gilster (1997)	Level 3	Use of Advanced Sources (Indirect)	✓	Dilihat dari jenis artikel DOAJ/Scopus yang dilampirkan, strategi pencariannya sudah tingkat lanjut.
26	Ng (2012); Martin (2005)	Level 4	Referencing Quality	✓	Referensi tersusun sangat rapi dan mengikuti struktur yang baku.
27	Ng (2012); Martin (2005)	Level 4	Advanced Source Use	✓	Memanfaatkan beragam artikel <i>peer-reviewed</i> terbitan tahun terbaru (2025/2026) yang mengindikasikan pencarian literatur proaktif.
28	Ng (2012); Martin (2005)	Level 4	Bibliography Organisation	✓	Diorganisasikan secara alfabetis dan sistematis.
29	Ng (2012); Bawden (2001); Martin (2005)	Level 5	Source Integration	✓	Berbagai sumber diintegrasikan dengan matang, misalnya saat menyatukan teori kebiasaan (<i>Habits</i>) dan AI.
30	Ng (2012); Bawden (2001); Martin (2005)	Level 5	Critical Argument	✓	Argumen urgensi penelitian dikonstruksi dengan sangat rapi dan logis.
31	Ng (2012); Bawden (2001); Martin (2005)	Level 5	Source Quality	✓	Sumber yang dipakai relevan langsung dengan variabel (EFL, <i>Habit</i> , Generative AI).
32	Ng (2012); Bawden (2001); Martin	Level 5	Academic Integrity	✓	Meskipun tidak ada <i>report</i> Turnitin, tata cara sitasi secara <i>in-text</i> sudah membuktikan pemahaman integritas akademik yang kuat.

	(2005)				
RQ 3 – Challenges in Implementing Digital Literacy					
33	Ng (2012)	Technical	Technical Challenges		<i>Tidak ditandai.</i> Skripsi Dwiki terlihat rapi dan tidak menunjukkan adanya kelimitasi teknis (seperti daftar pustaka yang tidak lengkap/berantakan).
34	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive	Cognitive Challenges		<i>Tidak ditandai.</i> Kualitas sintesis argumen dalam teks sangat baik; tidak menunjukkan kelemahan/tantangan kognitif.
35	Ng (2012); Martin (2005)	Affective	Social-emotional Challenges	N/A	Membutuhkan catatan pembimbing atau <i>feedback form</i> yang tidak tersedia di dalam dokumen.
36	Martin (2005); Kucer (2005)	Support	Instructional & Support Gaps	N/A	Tidak disertakan bagian <i>Acknowledgements</i> (Kata Pengantar) yang biasanya memuat hal ini.

Document Checklist

Thesis: FA

Title: Factors That Trigger Tip of the Tongue Phenomenon among English foreign Language Learners.

No.	Theory	Aspect	Indicators	Checklist	Catatan & Bukti dari Dokumen
RQ 1 – Types of Digital Literacy Used in Thesis Writing					
1	Ng (2012)	Technical	Evidence of Tool-Assisted Referencing	X	Tidak ada daftar pustaka. Sitasi <i>in-text</i> sangat manual dan tidak standar (misal: "In Research by Barry, J. C. in an article with title..."), menunjukkan tidak adanya penggunaan <i>reference manager</i> .
2	Ng (2012)	Technical	File Organisation & Versioning	N/A	Hanya satu draf dokumen, tidak ada riwayat versi.
3	Ng (2012)	Technical	Use of Academic Integrity Tools	N/A	Tidak ada lampiran Turnitin.
4	Ng (2012)	Technical	Formatting and Technical Control	X	Banyak kesalahan pengetikan (typo: "blockagee", "disscussion", "Delemination", "Instrumen") dan spasi berantakan ("Curup,10th", "phenomenon,the").
5	Ng (2012)	Technical	Evidence of Independent Problem-Solving	N/A	Membutuhkan catatan revisi.
6	Ng (2012); Gilster (1997)...	Cognitive	Source Credibility & Diversity	✓	Literatur yang dibahas cukup kredibel dan beragam (Brown, Schwartz & Metcalfe, Dörnyei, Swain).
7	Ng (2012); Gilster (1997)...	Cognitive	Depth of Argumentation	✓	Penulis mampu membangun argumen yang mendalam mengenai ToT secara psikolinguistik dan kognitif di Latar Belakang.
8	Ng (2012); Gilster (1997)...	Cognitive	Quality of Synthesis	✓	Sintesis teori di Bab 2 berjalan cukup baik (menggabungkan faktor internal, eksternal, dan dampaknya).
9	Ng (2012); Gilster (1997)...	Cognitive	Citation Accuracy & Ethical Use	X	Cara mengutip sangat keliru. Banyak kutipan tidak menggunakan kaidah akademik (misal: mengutip judul artikel ke dalam paragraf secara utuh alih-alih menggunakan gaya APA).
10	Bawden (2001)	Cognitive	Evidence of Strategic Searching (Indirect)	✓	Sumber yang ditemukan sangat spesifik dan relevan dengan variabel penelitian.
11	Ng (2012)	Social-Emotional	Citation & Attribution Accuracy	X	Seperti pada No. 9, atribusi pengarang sangat lemah dan informal.
12	Ng (2012)	Social-Emotional	Plagiarism Indicators	N/A	Tidak ada <i>similarity report</i> .
13	Ng (2012)	Social-Emotional	AI Use Indicators (Indirect)	✓	Ada indikasi salin-tempel (<i>copy-paste</i>) yang fatal di Bab 3 (Data Condensation/Display), di mana penulis tiba-tiba membahas "presupposition" yang merupakan topik Pragmatik, bukan ToT. Ini indikasi kelalaian editing atau <i>copy-paste</i> dari dokumen/AI lain.
14	Ng	Social-	Supervisor	N/A	Tidak ada <i>feedback form</i> .

	(2012)	Emotional	Feedback		
15	Kucer (2005)	Sociocultural	Academic Writing Conventions	X	Penulisan belum memenuhi standar akademik yang baku karena format sitasi informal, banyak <i>typo</i> , tidak ada Daftar Pustaka, dan isi Bab 3 tidak sinkron dengan Bab 1 & 2.
16	Kucer (2005)	Sociocultural	Critical Engagement	✓	Penulis mampu mengkritisi kurangnya studi ToT pada konteks mahasiswa Indonesia (menemukan <i>gap</i>).
17	Kucer (2005)	Sociocultural	Diversity of Perspectives	✓	Membahas berbagai sudut pandang: psikologi, kecemasan, lingkungan kelas, dan kebiasaan.
18	Kucer (2005)	Sociocultural	Scholarly Voice	✓	Terdapat posisi penulis di Latar Belakang untuk membela pentingnya konteks Indonesia, walau dirusak oleh inkonsistensi metodologi di Bab 3.
19-21	Kucer (2005); Martin (2005)	Developmental	Semua Indikator	N/A	Tidak ada draf sebelumnya.
RQ 2 – Demonstration of Digital Literacy Competency Levels					
23	Ng (2012); Martin (2005)	Level 2	Low Understanding (Technical)	✓	Secara teknis (manajemen referensi, akurasi sitasi, kontrol format dokumen), mahasiswa berada di Level 2. Banyak kesalahan format, tidak ada daftar pustaka, dan inkonsistensi struktur (isi metodologi <i>copy-paste</i> dari skripsi lain/presupposition).
30	Ng (2012); Bawden (2001)	Level 4/5	High / Advanced Mastery (Cognitive)	✓	Ironisnya, dari segi pemikiran (kognitif), mahasiswa berada di Level 4. Sintesis dan argumen Latar Belakangnya berbobot dan menggunakan literatur kelas atas. Ada ketimpangan besar antara kedalaman teori dan eksekusi teknis dokumen.
RQ 3 – Challenges in Implementing Digital Literacy					
33	Ng (2012)	Technical	Technical Challenges	✓	Terlihat sangat jelas. Tidak adanya daftar pustaka dan sitasi yang <i>copy-paste</i> judul ke dalam paragraf menunjukkan ketidakmampuan menggunakan alat seperti Mendeley/Zotero.
34	Ng (2012); Gilster (1997)...	Cognitive	Cognitive Challenges	✓	Ada indikasi tantangan kognitif dalam "editing & reviewing" (metakognitif), dibuktikan dengan lolosnya teks metodologi tentang "presupposition" (pragmatik) di skripsi yang membahas <i>Tip-of-the-Tongue</i> (psikolinguistik).
35-36	Ng (2012); Martin (2005)...	Affective / Support	Challenges	N/A	Tidak ada dokumen pendukung untuk menilai area ini.

Document Checklist

Thesis: NAN

Title: Exploring Academic Writing Strategies for On-Time Thesis Completion Among Students of English Tadris Study Program

No.	Theory	Aspect	Indicators	Checklist	Catatan & Bukti dari Dokumen
RQ 1 – Types of Digital Literacy Used in Thesis Writing					
1	Ng (2012)	Technical	Evidence of Tool-Assisted Referencing	X	Meskipun <i>Bibliography</i> terformat cukup rapi dengan DOI, sitasi <i>in-text</i> dilakukan secara manual secara naratif tanpa menyertakan tahun terbit (misal: "According to John Biggs and Catherine Tang...", "According to Ken Hyland..."). Hal ini menunjukkan belum digunakannya <i>reference manager</i> (seperti Mendeley/Zotero).
2	Ng (2012)	Technical	File Organisation & Versioning	N/A	Hanya ada satu draf dokumen, tidak ada riwayat versi.
3	Ng (2012)	Technical	Use of Academic Integrity Tools	N/A	Tidak ada lampiran laporan cek similaritas (Turnitin).
4	Ng (2012)	Technical	Formatting and Technical Control	✓	Format dokumen secara umum sangat rapi; dilengkapi dengan <i>Table of Contents</i> otomatis dan tabel-tabel analisis (Tabel 2.1, 2.2, 3.1) yang terstruktur dengan baik.
5	Ng (2012)	Technical	Evidence of Independent Problem-Solving	N/A	Mebutuhkan catatan revisi atau draf sebelumnya.
6	Ng (2012); Gilster (1997)...	Cognitive	Source Credibility & Diversity	✓	Sumber yang digunakan kredibel dan beragam, mencakup jurnal ber-DOI dan buku teks otoritatif (Zimmerman, Hyland, Oxford).
7	Ng (2012); Gilster (1997)...	Cognitive	Depth of Argumentation	✓	Penulis membangun argumen yang logis mengenai alasan mengapa mahasiswa mengalami keterlambatan skripsi (dari aspek kognitif, linguistik, hingga manajemen waktu).
8	Ng (2012); Gilster (1997)...	Cognitive	Quality of Synthesis	✓	Bab 2 mensintesis teori proses menulis McLean dengan konsep <i>Self-Regulated Learning</i> dari Zimmerman dengan sangat sistematis.
9	Ng (2012); Gilster (1997)...	Cognitive	Citation Accuracy & Ethical Use	X	Kelemahan besar pada akurasi sitasi. Dalam teks, penulis sering kali hanya menyebutkan nama (misal: "According to McLean") tanpa format standar (McLean, Tahun), yang menyalahi kaidah akademik baku (seperti APA).
10	Bawden (2001)	Cognitive	Evidence of Strategic Searching (Indirect)	✓	Sumber yang digunakan sangat selaras dengan rumusan masalah mengenai strategi penyelesaian skripsi tepat waktu.
11	Ng (2012)	Social-Emotional	Citation & Attribution Accuracy	X	Atribusi di dalam teks sangat informal dan tidak sesuai standar pengutipan karya ilmiah.
12	Ng (2012)	Social-Emotional	Plagiarism Indicators	N/A	Tidak ada <i>similarity report</i> .
13	Ng (2012)	Social-Emotional	AI Use Indicators (Indirect)	✓	Alur tulisan sangat runtut, koheren, dan relevan dengan konteks lokal (IAIN Curup, Prodi Tadris Bahasa

					Inggris); tidak ada tanda-tanda halusinasi konten.
14	Ng (2012)	Social-Emotional	Supervisor Feedback	N/A	Tidak ada dokumen <i>feedback</i> .
15	Kucer (2005)	Sociocultural	Academic Writing Conventions	Partial	Gaya bahasa, hierarki bab, dan objektivitas penulisan sudah sangat akademis. Namun, <i>convention</i> sitasi <i>in-text</i> gagal dipenuhi.
16	Kucer (2005)	Sociocultural	Critical Engagement	✓	Penulis mampu menemukan celah penelitian (<i>gap</i>), yaitu kurangnya kajian praktis tentang strategi mahasiswa yang sukses lulus tepat waktu, bukan hanya mengidentifikasi kendala.
17	Kucer (2005)	Sociocultural	Diversity of Perspectives	✓	Membahas tantangan linguistik, akademis, dan psikologis (kecemasan menulis).
18	Kucer (2005)	Sociocultural	Scholarly Voice	✓	Suara akademis penulis tertuang jelas saat memposisikan urgensi penelitiannya terhadap literatur sebelumnya.
19-21	Kucer (2005); Martin (2005)	Developmental	Semua Indikator	N/A	Tidak ada draf awal untuk diperbandingkan.
RQ 2 – Demonstration of Digital Literacy Competency Levels					
23	Ng (2012); Martin (2005)	Level 2	Low Understanding (Technical)	✓	Secara teknis penulisan sitasi <i>in-text</i> , kompetensi mahasiswa tergolong rendah karena penulisan referensi dalam paragraf dilakukan secara manual dan tidak memuat atribut penting (tahun terbit).
28	Ng (2012); Martin (2005)	Level 4	Bibliography Organisation	✓	Berbeda dengan sitasi <i>in-text</i> , Daftar Pustaka (Bibliography) di bagian akhir dokumen disusun dengan sangat baik, konsisten, alfabetis, dan menyertakan URL/DOI (meskipun tampaknya juga disusun manual).
30	Ng (2012); Bawden (2001)	Level 4/5	High / Advanced Mastery (Cognitive)	✓	Dari segi kognitif, sintesis, dan penyusunan struktur argumen teoretis, mahasiswa berada di level yang sangat tinggi.
RQ 3 – Challenges in Implementing Digital Literacy					
33	Ng (2012)	Technical	Technical Challenges	✓	Sangat jelas terdapat tantangan teknis dalam otomatisasi penulisan sitasi. Mahasiswa belum mengintegrasikan alat manajemen referensi (Zotero/Mendeley) ke dalam <i>word processor</i> -nya saat menulis bab.
34	Ng (2012); Gilster (1997)...	Cognitive	Cognitive Challenges		<i>Tidak ditandai</i> . Kualitas gagasan dan sintesis sangat baik, tidak ada indikasi kelemahan kognitif dalam mengolah literatur.
35-36	Ng (2012); Martin (2005)...	Affective / Support	Challenges	N/A	Membutuhkan data dari catatan bimbingan atau wawancara mahasiswa.

Document Checklist

Thesis: RM

Title: Peer Tutoring In Undergraduate Thesis Writing at English Tadris Study Program of Iain Curup

No.	Theory	Aspect	Indicators	Checklist (✓)	Catatan & Bukti dari Dokumen
RQ 1 – Types of Digital Literacy Used in Thesis Writing					
1	Ng (2012)	Technical	Evidence of Tool-Assisted Referencing	✓	Daftar pustaka di bagian akhir tersusun sangat konsisten mengikuti format APA (menggunakan <i>hanging indent</i> dan penulisan jurnal yang baku), mengindikasikan penggunaan aktif <i>reference manager</i> seperti Mendeley atau Zotero.
2	Ng (2012)	Technical	File Organisation & Versioning	N/A	Tidak dapat dievaluasi karena hanya ada satu file dokumen akhir tanpa riwayat draf versi sebelumnya.
3	Ng (2012)	Technical	Use of Academic Integrity Tools	N/A	Tidak menyertakan lampiran laporan hasil uji kemiripan teks (Turnitin/Plagiarism Checker).
4	Ng (2012)	Technical	Formatting and Technical Control	✓	Kontrol teknis dokumen sangat baik. Penataan hirarki judul (Heading), penulisan sub-bab, serta layout daftar isi mencerminkan penguasaan fitur word processing yang matang.
5	Ng (2012)	Technical	Evidence of Independent Problem-Solving	N/A	Membutuhkan data pelacak berupa lembar kendali log revisi atau catatan konsultasi pembimbing.
6	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive	Source Credibility & Diversity	✓	Kredibilitas sumber sangat tinggi dan bervariasi. Memanfaatkan jurnal internasional bereputasi (seperti <i>Cogent Education</i>) dan buku metodologi standar (Saldaña & Omasta, Swales & Feak) dengan rentang tahun mutakhir (hingga 2024-2025).
7	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive	Depth of Argumentation	✓	Penulis membangun kerangka argumen yang solid di Bab 1, menguraikan urgensi metode <i>peer tutoring</i> dalam membantu penulisan skripsi mahasiswa di lingkungan pendidikan tinggi Islam.
8	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive	Quality of Synthesis	✓	Mampu mengorelasikan dan menyintesis beragam studi terdahulu di Bab 2 (Kajian Teori), seperti menghubungkan efektivitas umpan balik sejawat dengan instruksi menulis akademis (<i>writing instruction</i>).
9	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive	Citation Accuracy & Ethical Use	✓	Pengutipan di dalam paragraf (in-text citation) selaras dengan nama pengarang dan tahun yang tercantum lengkap di Daftar Pustaka, menunjukkan

					kepatuhan tinggi pada etika akademik.
10	Bawden (2001)	Cognitive	Evidence of Strategic Searching (Indirect)	✓	Ketepatan pemilihan literatur spesifik seputar <i>peer tutoring</i> , <i>peer feedback</i> , dan dampaknya pada keterampilan makro-mikro menulis membuktikan adanya strategi pencarian pangkalan data digital yang efektif.
11	Ng (2012)	Social-Emotional	Citation & Attribution Accuracy	✓	Setiap adopsi ide atau hasil penelitian dari penulis lain (seperti Redzimska, Semartini, Taherdoost) diidentifikasi dan diberikan atribusi hak cipta secara formal.
12	Ng (2012)	Social-Emotional	Plagiarism Indicators	N/A	Memerlukan konfirmasi berbasis data persentase kemiripan dari indeks Turnitin resmi.
13	Ng (2012)	Social-Emotional	AI Use Indicators (Indirect)	✓	Gaya kepenulisan mengalir secara alami, koheren, dan sangat kontekstual mengarah pada dinamika spesifik mahasiswa bahasa Inggris di lingkungan IAIN Curup; tidak ditemukan indikasi fabrikasi teks otomatis yang kaku.
14	Ng (2012)	Social-Emotional	Supervisor Feedback	N/A	Tidak ada dokumen lembar penilaian atau catatan umpan balik pembimbing.
15	Kucer (2005)	Sociocultural	Academic Writing Conventions	✓	Sangat taat pada konvensi karya ilmiah baku (susunan bab lengkap dari Pendahuluan hingga Metodologi Penelitian, penggunaan register bahasa formal yang konsisten).
16	Kucer (2005)	Sociocultural	Critical Engagement	✓	Menunjukkan sikap kritis terhadap implementasi metode bimbingan konvensional dan memposisikan urgensi intervensi sosial lewat kelompok pasca-pembelajaran (<i>peer tutoring</i>).
17	Kucer (2005)	Sociocultural	Diversity of Perspectives	✓	Mengeksplorasi dimensi <i>peer tutoring</i> baik dari sudut pandang sosiokultural lingkungan akademik makro maupun interaksi psikososial antar mahasiswa (mikro).
18	Kucer (2005)	Sociocultural	Scholarly Voice	✓	Penulis berhasil menempatkan pandangan teoritis pribadinya di tengah perdebatan para ahli mengenai efektivitas bimbingan sejawat dalam penulisan draf ilmiah.
19-21	Kucer (2005); Martin (2005)	Developmental	Semua Indikator	N/A	Indikator dimensi perkembangan membutuhkan perbandingan longitudinal antardraf berkala yang tidak tersedia.
RQ 2 – Demonstration of Digital Literacy Competency Levels					
24	Ng (2012); Gilster (1997)	Level 3	Referencing Consistency	✓	Kesesuaian format sitasi dari awal hingga akhir dokumen

					menunjukkan tingkat konsistensi yang sangat tinggi.
25	Ng (2012); Gilster (1997)	Level 3	Use of Advanced Sources (Indirect)	✓	Mampu mengidentifikasi artikel jurnal internasional digital spesifik berbasis tautan DOI aktif.
26	Ng (2012); Martin (2005)	Level 4	Referencing Quality	✓	Kualitas referensi sangat baik dengan penulisan meta-data bibliografi yang lengkap (Volume, Isu, Halaman, DOI).
27	Ng (2012); Martin (2005)	Level 4	Advanced Source Use	✓	Penggunaan variasi literatur mutakhir (2022-2025) secara proaktif guna mendukung landasan teori metodologi kualitatif.
28	Ng (2012); Martin (2005)	Level 4	Bibliography Organisation	✓	Bagian daftar pustaka diorganisasikan secara alfabetis murni dan terstruktur secara baku dan sistematis.
29	Ng (2012); Bawden (2001); Martin (2005)	Level 5	Source Integration	✓	Integrasi antar-sumber berjalan mulus, misalnya dalam menjembatani korelasi antara efektivitas bimbingan kelompok sejawat dengan teknik analisis data kualitatif.
30	Ng (2012); Bawden (2001); Martin (2005)	Level 5	Critical Argument	✓	Mampu mengonstruksi argumen kritis yang kuat mengenai pentingnya iklim sosiokultural yang suportif dalam meminimalkan hambatan penulisan skripsi mahasiswa.
31	Ng (2012); Bawden (2001); Martin (2005)	Level 5	Source Quality	✓	Pilihan buku acuan dan artikel jurnal dari penerbit global terkemuka membuktikan standar seleksi sumber digital yang sangat tinggi.
32	Ng (2012); Bawden (2001); Martin (2005)	Level 5	Academic Integrity	✓	Akurasi kutipan langsung maupun tidak langsung (parafreasa) di dalam naskah menunjukkan penerapan etika integritas akademik yang kokoh.
RQ 3 – Challenges in Implementing Digital Literacy					
33	Ng (2012) – Technical Dimension	Technical Challenges	Technical Challenges		<i>Tidak ditandai.</i> Dokumen tidak menunjukkan kelemahan teknis atau batasan kontrol operasional alat digital (daftar pustaka lengkap dan rapi).
34	Ng (2012); Gilster (1997); Bawden (2001)	Cognitive Challenges	Cognitive Challenges		<i>Tidak ditandai.</i> Penulis menunjukkan kedalaman argumen dan penguasaan kajian literatur yang prima tanpa kendala kognitif yang membatasi analisis.
35	Ng (2012) – Social-Emotional; Martin (2005)	Social-emotional Challenges	Social-emotional Challenges	N/A	Memerlukan instrumen wawancara psikososial langsung atau berkas penilaian eksternal dari pihak program studi.
36	Martin (2005); Kucer (2005) – Developmental	Support Gaps	Instructional & Support Gaps	N/A	Bagian prakata, ucapan terima kasih, ataupun lampiran belum menyertakan indikasi pelatihan formal alat referensi digital.

Document Checklist

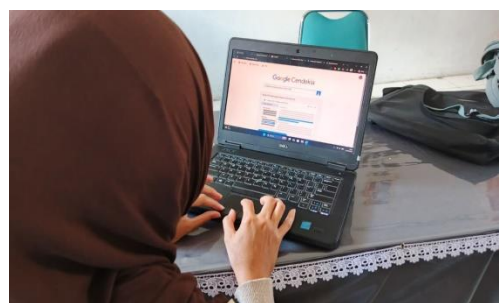
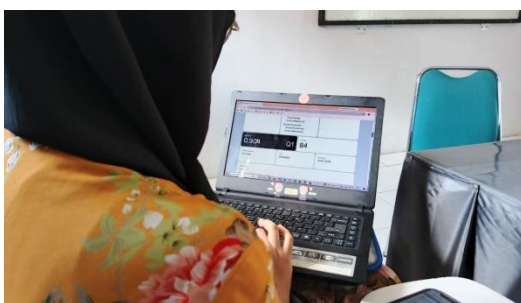
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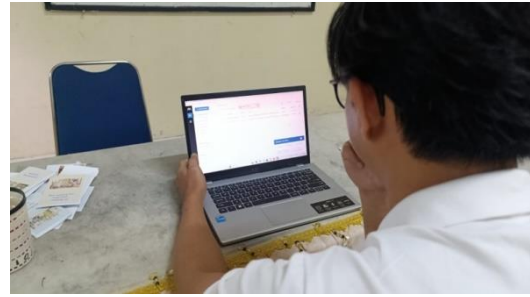
Title: The Use of Chat GPT in Enhancing Students' Self-Learning Pronunciation.

No.	Theory	Aspect	Indicators	Checklist (✓)	Catatan & Bukti dari Dokumen
RQ 1 – Types of Digital Literacy Used in Thesis Writing					
1	Ng (2012)	Technical	Evidence of Tool-Assisted Referencing	X	Tidak ada daftar pustaka. Sitasi di dalam teks juga banyak yang tidak standar/tidak menyertakan tahun (misal: "According to C. C. Liu, G. J. Hwang...", "Derwing and Munro highlight"). Ini menunjukkan tidak adanya penggunaan alat manajemen referensi.
2	Ng (2012)	Technical	File Organisation & Versioning	N/A	Hanya satu draf dokumen, tidak ada riwayat versi.
3	Ng (2012)	Technical	Use of Academic Integrity Tools	N/A	Tidak ada lampiran cek similaritas (Turnitin).
4	Ng (2012)	Technical	Formatting and Technical Control	✓	Secara umum struktur dokumen (Bab 1-5) tertata dan memiliki tabel yang rapi, meski terdapat beberapa kesalahan mekanis (huruf kecil di awal kalimat: "improvement in pronunciation...", <i>typo</i> : "self-lerning", "skil").
5	Ng (2012)	Technical	Evidence of Independent Problem-Solving	N/A	Membutuhkan catatan revisi/pembimbing.
6	Ng (2012); Gilster (1997)...	Cognitive	Source Credibility & Diversity	✓	Menggunakan landasan teori yang sangat solid dan beragam (Bandura, Krashen, Zimmerman, Deci & Ryan).
7	Ng (2012); Gilster (1997)...	Cognitive	Depth of Argumentation	✓	Argumen dibangun dengan sangat baik, mengaitkan fenomena penggunaan AI dengan teori psikologi belajar (otonomi, motivasi, kecemasan).
8	Ng (2012); Gilster (1997)...	Cognitive	Quality of Synthesis	✓	Bab 4 dan 5 menunjukkan sintesis yang sangat kuat antara temuan lapangan (wawancara) dengan teori (SRL Zimmerman, Affective Filter Krashen).
9	Ng (2012); Gilster (1997)...	Cognitive	Citation Accuracy & Ethical Use	X	Kelemahan teknis. Penulis tidak menuliskan tahun publikasi pada banyak sitasi di teks (misal: "According to M. Bashori...").
10	Bawden (2001)	Cognitive	Evidence of Strategic Searching (Indirect)	✓	Berhasil menemukan dan membandingkan literatur terbaru mengenai penggunaan AI dan ChatGPT (2024-2025).
11	Ng (2012)	Social-Emotional	Citation & Attribution Accuracy	X	Gagal mengatribusikan kutipan dengan format akademik baku (APA/MLA).
12	Ng (2012)	Social-Emotional	Plagiarism Indicators	N/A	Tidak ada <i>similarity report</i> .
13	Ng (2012)	Social-Emotional	AI Use Indicators (Indirect)	✓	Berbeda dengan Fahmi, tulisan Nando koheren dari Bab 1 hingga Bab 5 tanpa ada indikasi halusinasi istilah (topik konsisten pada Pronunciation dan ChatGPT).
14	Ng	Social-	Supervisor	N/A	Tidak ada dokumen <i>feedback</i>

	(2012)	Emotional	Feedback		pembimbing.
15	Kucer (2005)	Sociocultural	Academic Writing Conventions	✓	Gaya bahasa sangat akademis, analitis, dan memiliki struktur pelaporan kualitatif tematik yang sangat baik.
16	Kucer (2005)	Sociocultural	Critical Engagement	✓	Sangat kritis. Penulis mampu menunjukkan temuan "emergent" (baru) seperti <i>text-based clarification</i> dan <i>cross-checking</i> yang tidak ada di teori sebelumnya.
17	Kucer (2005)	Sociocultural	Diversity of Perspectives	✓	Membahas dari sudut pandang kognitif, afektif (kecemasan), dan kemandirian belajar (otonomi).
18	Kucer (2005)	Sociocultural	Scholarly Voice	✓	Penulis memiliki suara akademis yang kuat, secara eksplisit menyatakan "Research Position of Current Study" di Bab 2.
19-21	Kucer (2005); Martin (2005)	Developmental	Semua Indikator	N/A	Tidak ada draf sebelumnya.
RQ 2 – Demonstration of Digital Literacy Competency Levels					
23	Ng (2012); Martin (2005)	Level 2	Low Understanding (Technical)	✓	Secara teknis tata tulis referensi, mahasiswa berada di Level 2. Ketidakadaan daftar pustaka dan cara sitasi <i>in-text</i> yang tidak rapi (hilangnya tahun, dll) menunjukkan masalah dalam menggunakan alat bantu akademis digital (Reference Manager).
25	Ng (2012); Gilster (1997)	Level 3	Use of Advanced Sources (Indirect)	✓	Kemampuan pencarian literaturnya sudah level lanjut.
30	Ng (2012); Bawden (2001)	Level 4/5	High / Advanced Mastery (Cognitive)	✓	Secara kognitif, mahasiswa ini setara Level 5. Argumen krisis, sintesis teori (SRL, Noticing Hypothesis, Affective Filter) dengan data lapangan dilakukan dengan sangat brilian dan koheren.
RQ 3 – Challenges in Implementing Digital Literacy					
33	Ng (2012)	Technical	Technical Challenges	✓	Penulis memiliki kendala yang jelas dalam hal formatting referensi dan <i>proofreading</i> mekanis (typo ringan).
34	Ng (2012); Gilster (1997)...	Cognitive	Cognitive Challenges		<i>Tidak ditandai</i> . Tidak ada masalah kognitif; penguasaan teorinya sangat mumpuni.
35-36	Ng (2012); Martin (2005)...	Affective / Support	Challenges	N/A	Tidak ada dokumen pendukung (catatan pembimbing/kata pengantar).

DOCUMENTATION





AUTOBIOGRAPHY



My name is Abdul Karim Amrullah, and I was born on August 4, 2004, in the cool highlands of Curup, Rejang Lebong, Bengkulu. I began my formal education at SDN 01 Curup Utara, continued through MTS Baitul Makmur Curup, and completed my senior years at MAN Rejang Lebong. Growing up in this small but vibrant town, I developed a love for two seemingly opposite hobbies: playing video games, which sharpened my strategic thinking, and reading books, which fueled my curiosity about the world. This balance between digital strategy and literary exploration laid the groundwork for my academic journey and my growing passion for the English language.

During my time in university, I actively joined the student organization E-Station under HMPS TBI, where I served in the Education Division. This role allowed me to nurture a culture of academic excellence among my peers, organizing workshops and sharing knowledge to help others grow. My dedication to research and public speaking soon opened doors to the international stage, where I had the privilege of presenting my work at three major events: the Corolla International Conference, ELESVITA, and the IFFHSKL Colloquium at Universiti Teknologi Malaysia. These experiences were transformative, challenging me to stand confidently among scholars from different countries and proving that a student from a small town like Curup could make a meaningful contribution to global academic conversations.

Looking back, my journey from the misty hills of Rejang Lebong to the lecture halls of Malaysia has taught me that resilience, curiosity, and hard work are the true drivers of success. My hobbies continue to ground me, gaming reminds me to think creatively, while reading keeps me humble and hungry for knowledge. Today, I see myself not just as a student, but as a bridge between my local heritage and the international academic community. My story is far from over, and I am determined to keep learning, presenting, and inspiring others, proving that with the right mindset, any stage in the world can become your own.