

CHAPTER I

INTRODUCTION

This chapter aimed introduction. In this chapter, the researcher explained about the background of research, formulation of the research question, purpose of study, formulation of hypothesis, significant of the study, scope and limitation, and definition of the key terms.

A. Background of Study

Literacy is an important skill that individuals must master to thrive in 21st century learning. Since 2015, the Ministry of Education and Culture Indonesia has implemented the school literacy movement (*Gerakan Literasi Sekolah*) which is part of the National Literacy Movement (GLN) as outlined in the Regulation of the Minister of Education and Culture Number 23 of 2015 concerning in Growth of Character. It play an important role in realizing character building education that enhances an individual's ability to use all their potential skills in life such as creativity, gives us experiences, and knowledge so that everyone who lives in this era can compete on a global scale.¹ Initially, literacy referred only to the ability to read and write texts and the ability to interpret (UNESCO, 2005); but currently the concept of literacy continues to develop and is divided into several forms of literacy. According to the

¹ Eryanti Eryanti et al., "The Influence of the School Literacy Movement, Reading Interest, and Reading Materials on Reading Comprehension Skill of Class XI Students of MAN Bengkulu City Academic Year 2020/2021," *International Journal of Multicultural and Multireligious Understanding* 8, no. 9 (September 27, 2021): 432, doi:10.18415/ijmmu.v8i9.3002.

Programme for International Student Assessment (PISA) survey for 2009–2018, traditional reading of print books, newspapers and other such material is lagging behind reading online through the world wide web and the Internet due to a massive increase in the use of technology among young learners worldwide.² Recent statistics from UNESCO indicate that over 80% of global information consumption now occurs through digital platforms, fundamentally changing how people interact with and comprehend text. It has become obvious that reading is shifting from a page to a screen, which means that students read more online texts than traditionally printed media.³ This shift reflects the increasing integration of digital platforms in daily life, where individuals engage with diverse digital texts as part of their literacy needs. The organization for Economic Cooperation and Development (OECD) in 2019 also reported the necessity for urgent action by educational institutions to align their curricula with education trends that we live in. Given this urgency, educational institutions are now prioritizing digital literacy in the educational curriculum to prepare and enhance student competence for the challenges of a rapidly changing digital landscape.⁴ Consequently, digital literacy has become essential for comprehending and interacting with such complex digital content.

The concept of digital literacy only started to gain widespread attention in the last decade. It has become very popular in educational institutions and

² OECD, “Programme for International Student Assessment (PISA) Results 48 from PISA 2018,” 2019, 1–10.

³ OECD, *PISA 2022 Results (Volume I)*, PISA (OECD, 2023), doi:10.1787/53f23881-en.

⁴ Suryani Nunuk, Rochsantiningsih Dewi, and Suharno Suharno, “Digital Learning, Smartphone Usage, and Digital Culture in Indonesia Education,” *Интеграция Образования* 24, no. 1 (98) (2020): 20–31.

among students. The term digital literacy is often misunderstood and used differently, at times interchangeably as digital fluency, digital competency or digital capabilities.⁵ It notes that digital competency refers to capabilities which fit someone for living, learning and working in a digital society. The term ‘digital fluency’ is closely related to ‘digital literacy’ and emphasizes deeper proficiency that enables users to manipulate information, develop ideas, and leverage technology to achieve strategic goals. The same thing explained by Murtadho et al., digital literacy encompasses the skills, knowledge, and understanding that enable critical, creative, intelligent, and safe practice when using digital technology in all areas of life.⁶ This indicates that the growth and development of digital technology have consequences for each student since it ensures the efficiency and achievement of all learning processes. Research by Jewarut et al., also explained that the good curriculum approach to digital literacy encompasses four essential components: basic literacy (fundamental reading and writing in digital formats), information knowledge (ability to locate and evaluate digital information), ICT skills (technical competence in using digital tools), and critical attitudes (analytical thinking toward digital content).⁷ The focus on digital

⁵ Zhi-Jiang Liu et al., “Digital Literacy and Digital Didactics as the Basis for New Learning Models Development,” *International Journal of Emerging Technologies in Learning*, 2020.

⁶ Muhammad Iqbal Murtadho et al., “The Role of Digital Literacy in Improving Students’ Competence in Digital Era,” *AL-WIJDÂN Journal of Islamic Education Studies* 8, no. 2 (2023): 253–60.

⁷ Siprianus Jewarut, Marianus Dinata Alnija, and Margaretha Lidya Sumarni, “Study of The Application of Digital Literacy in The Frame of The Independent Curriculum Towards 21st Century Skills in Border Area Students,” *Mudir: Jurnal Manajemen Pendidikan* 5, no. 2 (2023): 483–89.

literacy is particularly relevant as students are increasingly exposed to various forms of media and information sources that demand critical thinking.

Digital literacy encompasses not only the ability to use technological platforms, but also skills in communication and socialization. The global network is stronger affecting the daily lives of people and society, especially regarding the availability and ease of access to digital information and communication technologies. Mobile devices are useful for the purpose of learning both in and out of school and thus thought to be valuable. Due to the opportunities provided by information and communication technologies (ICTs) in contemporary education, many multimedia and interactive educational products are being developed in middle school or online education (e-learning). The shift to digital technology such as the use of social media, entertainment-based websites, and online video sharing into sources of educative materials, especially in English language teaching and learning situation created a new trend where students actively explored the internet for language learning materials from varied platforms such as YouTube, Instagram, TikTok and other online platforms.⁸ Nevertheless, Haleem et al., explains that not all students have the same ability on the digital technology because there are still many students who are wrong in using digital technology such as playing games so that in understanding content in reading is not sustainable and getting information in

⁸ Pratitis Nandiasoka Annisawati and Siskarossa Ika Oktora, "How Does ICT Literacy Influence Reading Literacy Score in Indonesia: First Attempt Using Spatial Analysis Approach," *Journal of Applied Research in Higher Education* 16, no. 1 (January 1, 2024): 61–76, doi:10.1108/JARHE-10-2022-0322.

various digital systems is still weak.⁹ Therefore, Gilster (1997, as cited in Zaidah) identified four core competencies that characterize people who are competent in digital literacy.¹⁰ Furthermore, millions of people around the world routinely access expository information from the internet written in English as second or foreign language for most users. The collaboration of English and technology has been taking the crucial position in almost every sector especially in reading English text where technology also could be used a tool to learn English and got the comprehension competence.¹¹ Students' inability to keep up with changes in information and communication technology may be due to their lack of digital literacy awareness, which could contribute to a decline in their skill levels.

One of the current challenges is how the development of technological advancements impacts the process by which students read. Students are faced with hypertexts, informal texts accompanied by video or pictures, and formats like e-books and audiobooks. These diverse forms of text require students to apply different reading strategies to effectively navigate and comprehend the content. Consequently, EFL classrooms are experiencing the implementation of mobile/smartphone apps into lessons whose effectiveness is already being evaluated. In line with this, Gilster (1997, as cited in Zaidah) defined that the concept of digital literacy refers to the ability to understand and utilize

⁹ Abid Haleem et al., "Understanding the Role of Digital Technologies in Education: A Review," *Sustainable Operations and Computers* 3 (2022): 275–85.

¹⁰ A P Harianah Zaidah, "THE IMPLEMENTATION OF DIGITAL LITERACY IN EFL CLASSROOM ACTIVITIES," *Current Research in ELT* 1 (2021): 131.

¹¹ Rajathurai Nishanthi, "The Importance of Learning English in Today World," *International Journal of Trend in Scientific Research and Development* 3, no. 1 (2018): 871–74.

information from digital sources found within computer hardware.¹² It is also stated that digital literacy is one of the technological competencies required to be owned by students for integrating electronic learning into the education system.¹³ Therefore, it can be inferred that digital literacy is the ability and skill individuals have in finding, processing, and using information from various sources through digital technology. The foundational principle of digital literacy is comprehension, as understanding how to use digital platforms and tools enhances one's ability to comprehend information presented in various digital formats. When someone is digitally literate, they know how to use devices like computers, tablets, and smartphones, as well as different software and internet browsers. It involves the ability to extract implicit and explicit information from the media. When individuals read materials using digital literacy, it can sometimes be challenging to read and comprehend the text. This challenge becomes even more pronounced with hypertext reading comprehension, as hypertexts often feature non-linear navigation structures, multimedia elements, and hyperlinks that require readers to integrate information across different modalities such as text, images, and multimedia elements. Readers must employ critical thinking and active monitoring to make connections between various pieces of information, ensuring they do not lose focus or misunderstand the content. In the process of reading hypertext, students must have the same skills,

¹² Zaidah, "THE IMPLEMENTATION OF DIGITAL LITERACY IN EFL CLASSROOM ACTIVITIES."

¹³ Pritika Reddy, Kaylash Chaudhary, and Shamina Hussein, "A Digital Literacy Model to Narrow the Digital Literacy Skills Gap," *Heliyon* 9, no. 4 (April 1, 2023), doi:10.1016/j.heliyon.2023.e14878.

such as digital navigation, assessing the reliability of sources, and integrating information from multimedia formats. This relationship shows that the higher the digital literacy ability, the more likely students are to be able to understand hypertext-based texts better. That is why hypertext reading comprehension is one of the important aspects for people to use digital literacy optimally.

The concept of hypertext reading comprehension has emerged as a critical area of study in response to the changing nature of text consumption. Hypertexts are not new for the 21st-century digital reader. Numerous studies have been conducted testing the unique contributions that hypertexts can make to the comprehension process, showing that students attain significantly higher comprehension scores by reading the hypertext version and that they also state a preference for that mode over the print version. Many researchers also have investigated the differences between traditional reading (linear) and hypertext reading (nonlinear) processes. According to Krenca et al., reading is no longer confined to a linear format. A printed document prompts readers to begin in the top left corner and conclude in the bottom right corner, whereas electronic content fosters an entirely different reading approach. Readers' eyes tend to move in circular patterns rather than in a straight line.¹⁴ Nevertheless, in this nonlinear reading environment, it is still essential to distinguish between truth and falsehood to identify cause and effect, and to employ critical thinking abilities. A hypertext is a collection of networked texts connected to each other

¹⁴ Klaudia Krenca, Emily Taylor, and S Hélène Deacon, "Scrolling and Hyperlinks: The Effects of Two Prevalent Digital Features on Children's Digital Reading Comprehension," *Journal of Research in Reading* 47, no. 3 (2024): 269–91.

through links. It is characterized by its non-linear structure and interconnected nodes, requires readers to employ advanced navigation and evaluation skills, which are core components of digital literacy. Additionally, the presence of graphical overviews in hypertexts can aid comprehension, particularly for readers with lower prior knowledge, by reducing cognitive load and providing a structured navigation path.^{15 16} This suggests that digital literacy, which encompasses the ability to effectively use digital tools and interfaces, is crucial for optimizing hypertext reading comprehension.

Many studies have explored the effects of using digital platforms to support language learners, especially in hypertext reading comprehension. Based on the preliminary research that had been conducted by the researcher at eighth-grade at the SMPN 1 Durenan by interviewing the English teacher to know the phenomenon that students faced in learning English especially for hypertext reading. The researcher's results there almost all students have their own smartphones to do English assignments which usually use in several online platforms. In relation to digital literacy competence, effective hypertext reading comprehension requires the reader to not only interpret written content but also actively engage with the text to get information, find the essence of the text, integrate information obtained from various reading sources, critically evaluate the text and interact with diverse digital formats, thereby enhancing their overall

¹⁵ Diana DeStefano and Jo-Anne LeFevre, "Cognitive Load in Hypertext Reading: A Review," *Computers in Human Behavior* 23, no. 3 (2007): 1616–41.

¹⁶ S Fesel, E Segers, and L Verhoeven, "Individual Variation in Children's Reading Comprehension across Digital Text Types," *Journal of Research in Reading* 41 (2018): 106–21, doi:10.1111/1467-9817.12098.

comprehension skills. Although a continuous change has occurred in technology and the development of students' learning process, educators may make use of numerous materials in reading education that can be from digital texts to the internet. The exposure text is very easily accessed in cyberspace in the form of electronic journals, e-books, online magazines or articles, and educational videos makes it easy for students to explore knowledge. Similarly, according to Huda et al., that did research on implementing digital literacy to develop an intense program especially for people who engage in the educational field. The study results showed that students are now expected to navigate various digital platforms, understand multiple digital formats, and critically evaluate the accuracy and validity of online information.¹⁷ This skill set has become particularly important as educational resources increasingly shift to digital platforms, requiring students to adapt their learning strategies accordingly. Students' inability to keep up with changes in information and communication technology may be due to their lack of digital literacy awareness, which could contribute to a decline in their skill levels.

Based on several articles that have been reviewed, the researcher found the relationship between digital literacy and hypertext reading comprehension has garnered increased attention from researchers in recent years. Previous research has explored various factors influencing both digital literacy and hypertext reading comprehension. Digital literacy has been shown to influence

¹⁷ Moh Choirul Huda, Nugrananda Janattaka, and Novan Aditya Prayoga, "EXPLORING THE USE OF ONLINE RESOURCES FOR ENGLISH LANGUAGE LEARNING: STUDENTS' PERSPECTIVES," *English Journal Literacy Utama* 7, no. 2 (2023): 794–802.

various aspects of academic performance and information processing. In relation with that, students with strong digital literacy skills exhibited better performance in online learning environments, particularly in tasks requiring complex information processing and synthesis.¹⁸ This result raises important questions about the potential role of digital literacy in supporting hypertext reading comprehension, as both skills share similar cognitive demands and processing requirements. It shared influential factors suggest potential mechanisms through which digital literacy competence might impact hypertext reading comprehension abilities. Digital literacy skills, such as effective navigation, critical thinking, and information evaluation, align closely with the cognitive demands of hypertext comprehension. The implementation of digital literacy reveals that most of the media consumed by students today originates from online sources, some of which are more credible than others.¹⁹ Students are increasingly becoming critical consumers of information, evaluating content and integrating knowledge from diverse sources to create a comprehensive understanding. This is consistent with the notion hypertext reading requires readers to synthesize information from various sources while maintaining coherence, a process that is supported by digital literacy skills like information evaluation and critical thinking. Thus, the study aims to fill the knowledge gap

¹⁸ Amaluddin Sarimin, Mulyo Prabowo, and Muh Firdaus, "Digital Media Literacy as a Motivational Strategy Learning Interest and Digital Competence in Pitu Riase 3 State Junior High School Students: Literasi Media Digital Sebagai Strategi Motivasi Minat Belajar Dan Kompetensi Digital Pada Siswa SMP Negeri 3 Pitu Riase," *SABIQ: Jurnal Sosial Dan Bidang Pendidikan* 1, no. 2 (2024): 9–19.

¹⁹ Devi Purmayanti, "The Challenges of Implementing Digital Literacy in Teaching and Learning Activities for EFL Learners in Indonesia," *BATARA DIDI: English Language Journal* 1, no. 2 (2022): 101–10.

in educational literature by investigating how strong the relationship between digital literacy and hypertext reading comprehension.

Hypertext reading comprehension is intricately linked to digital literacy competence, as both involve navigating and understanding complex digital environments. Unlike traditional linear texts, hypertext presents information through interconnected nodes linked via electronic connections, requiring readers to navigate multiple pathways and make strategic decisions about their reading trajectory. Relation to reading comprehension, the role of prior knowledge, text structure, and coherence of hypertexts provide fewer context cues than the traditional printed texts.²⁰ That is, the hypertext should provide English language readers with concise directions regarding how it is organized and connected with well-structured hyperlinks. As one of the aspects that determine students' literacy, reading comprehension is a skill that's individual must have to facilitate them easily in comprehending reading text. Hypertext reading comprehension is an important aspect of digital literacy because it involves a deep understanding of various digital texts, such as articles, blogs, websites, social media, and so on.²¹ Recent research by Martinez and Collins demonstrates that successful hypertext comprehension demands unique cognitive skills distinct from those employed in traditional reading, including the ability to integrate information across multiple sources and maintain coherence

²⁰ Teresa Schurer, Bertram Opitz, and Torsten Schubert, "Working Memory Capacity but Not Prior Knowledge Impact on Readers' Attention and Text Comprehension," in *Frontiers in Education*, vol. 5 (Frontiers Media SA, 2020), 26.

²¹ Rini Estiyowati Ikaningrum and Sri Sarwanti, "STUDENTS'DIGITAL LITERACY IN ONLINE READING CLASS: A CRITICAL REFLECTION ON ENGLISH LANGUAGE LEARNERS," 2021.

while navigating non-linear structures.²² This aligns with the cognitive load theory, which posits that reducing extraneous cognitive load through skills like efficient navigation, enhances learning and comprehension.²³ So, if someone frequently interacting with digital content, they develop skills in skimming, scanning, and analyzing information quickly, which are essential for effective reading comprehension. This shift reflects the increasing integration of digital platforms in daily life, where individuals engage with diverse digital texts, including hypertext, which presents information in a non-linear format through interconnected links. The abundance of information available on various online platforms raises the question of how students' ability to understand and utilize digital resources relates to their overall reading comprehension skills.

Researchers are particularly interested in how readers construct meaning in hypertext environments, as comprehension often depends on the ability to integrate scattered information effectively. Factors like prior knowledge, motivation, and digital literacy significantly influence hypertext comprehension. Most of the research on digital literacy at the high school level or university is geared towards the use of online learning or ICT that deals with some aspect or skill area of the learning process. Past studies rarely explored how digital literacy skills correlated to hypertext reading comprehension. Additionally, even though students often have access to ICT, it is not enough to ensure that they use content

²² Jeannette Mancilla-Martinez, "Understanding and Supporting Literacy Development among English Learners: A Deep Dive into the Role of Language Comprehension," *AERA Open* 6, no. 1 (2020): 2332858420912198.

²³ Louise Spear-Swerling, "Common Types of Reading Problems and How to Help Children Who Have Them," *Reading Teacher* 69, no. 5 (March 1, 2016): 513–22, doi:10.1002/trtr.1410.

and sources in a productive manner. But in this study, the digital literacy competence indicators were used to cover digital content for finding relevant information in English, especially for reading comprehension achievement. The novelty of the study lies in its focus on the specific skills required for hypertext reading comprehension, as opposed to general reading comprehension. The results of this study can help educators reflect on the learning process that has been implemented to increase students' competence in the twenty-first century. Besides that, this study also is expected to contribute to readers and educators while empowering students to be able to communicate, think critically and create their own learning designs so that the learning process can adapt to technological developments, especially performing well in digital literacy. So, the researcher conducts study with the title **“The Correlation between Students’ Digital Literacy Competence and their Hypertext Reading Comprehension at SMPN 1 Durenan Trenggalek”**.

B. Formulation of the Research Problem

Based on the background of the study that had been explained, the research problem in this study was formulated in the form of question as follows “Is there any correlation between students’ digital literacy competence and their hypertext reading comprehension of the eighth-grade students at SMPN 1 Durenan Trenggalek?”

C. Purpose of the Study

Based on the formulation of research questions, the main purpose of this study is to find out whether there is a correlation between students' digital literacy competence and their hypertext reading comprehension of the eighth-grade students at SMPN 1 Durenan Trenggalek.

D. Research Hypothesis

A hypothesis is a researcher's tentative statement about the relationship between variables in which the truth must be tested. There are two kinds of a hypothesis used in this research, those are:

1. Null Hypothesis (H_0)

There is no significant correlation between the students' digital literacy competence and their hypertext reading comprehension of the eighth-grade students at SMPN 1 Durenan Trenggalek.

2. Alternative Hypothesis (H_a)

There is a significant correlation between the students' digital literacy competence and their hypertext reading comprehension of the eighth-grade students at SMPN 1 Durenan Trenggalek.

E. Significance of the Study

The result of the study about correlation students' digital literacy competence and hypertext reading comprehension is expected to be useful to give some contributions to English language teaching and learning as follows:

1. Theoretical Significances

The result of this study is intended to give feedback to the researcher and support the existing theory related to students' digital literacy competence and hypertext reading comprehension.

2. Practical Significances

a. For the reader

The results of this study will motivate readers to enhance their digital literacy skills as an essential tool to get better results on comprehending hypertext materials effectively.

b. For the teachers

The result of this research is expected to provide information that students' digital literacy competence can be a starting point to improve and develop methodologies in teaching and learning skills in digital formats related to students' hypertext reading comprehension.

c. For the researcher

The benefit for the researcher is that the researcher can apply more interactive media learning in English language learning, such as the use

of digital-based reading materials that foster literacy skills and hypertext reading comprehension.

d. For the other researchers

The result of this study hopefully can be useful as a source of reference for further research about the correlation between students' digital literacy competence and hypertext reading comprehension achievement in different areas or levels.

F. Scope and Limitation of the Research

In this research, the scope of the study focuses on students' digital literacy competence and their hypertext reading comprehension. The researcher specifies the area on investigating correlation between the students' digital literacy competence and their hypertext reading comprehension which were identified by a questionnaire on students' digital literacy competence and a text reading comprehension test taken from hypertext. The researcher limits the subject of the research to only the eighth-grade students of SMPN 1 Durenan Trenggalek in the hope that the research would be more focused and detailed. The researcher also limited the text on recount texts in accordance with the syllabus of the eighth-grade students of SMPN 1 Durenan in the academic year of 2024/2025.

G. Definition of Key Terms

Definition of key terms are used to clarify the research problem. It also has an important role in explaining the scope and focus of the study. Therefore, to

avoid misunderstanding when reading this research, it is necessary to provide clear explanations of the following key terms:

1. Correlation

Correlation is an analytical technique in statistics used to assess the relationships between two variables such as predictor variable and outcome variable.²⁴ From those definitions it means that the meaning of correlation in this research referred to measure between students of digital literacy competence and their hypertext reading comprehension.

2. Students' Digital Literacy Competence

Digital Literacy is defined as the ability to understand and utilize information from various digital sources, regardless of the differing 'competence lists' that are often viewed as limiting.²⁵ This research investigated the proficiency of eight-grade students in interpreting and using digital information found in digital information that can be accessed online.

So, what the researcher means here is the students' competence in digital literacy to know their understanding and take information from utilizing digital media. We used their digital literacy skills to see how well they understood the stories and got information from digital media.

²⁴ Donald Ary et al., "Introduction to Research in Education 8th Edition," *Canada: Wadsworth Cengage Learning* 8, no. 8 (2010): 357.

²⁵ Carolyn R Pool, "A New Digital Literacy a Conversation with Paul Gilster," *Educational Leadership* 55 (1997): 6–11.

3. Hypertext Reading comprehension

Hypertext reading comprehension is described as the ability to understand and navigate digital texts containing hyperlinks, which require readers to process non-linear structures and integrate multiple sources of information.²⁶ It involves skills such as inferencing, critical evaluation to comprehend general information, specific information, textual meaning and textual reference of recount text.²⁷ In this study, reading comprehension deals with answer questions based on the hypertext which contain hyperlinks.

²⁶ Julie Coiro, "Exploring Literacy on the Internet: Reading Comprehension on the Internet: Expanding Our Understanding of Reading Comprehension to Encompass New Literacies," *The Reading Teacher* 56, no. 5 (2003): 458–64.

²⁷ Natasha Snyder, "Age of Technology: Are Age Differences Present In Comprehension of Non-Linear Hyperlink Text?," *Age*, 2018.