

CHAPTER I

INTRODUCTION

A. Background of Study

In the digital age, students are increasingly expected to engage with a wide range of online platforms and tools to support their academic work. Particularly in the context of English as a Foreign Language (EFL) education, students must not only understand the English language but also develop the ability to navigate digital environments critically and effectively. Despite access to digital tools such as Grammarly, Mendeley, Turnitin, and AI-powered applications like ChatGPT, many EFL students still face challenges in evaluating credible sources, paraphrasing texts, analyzing academic arguments, and conducting ethical research. These challenges raise important questions about their actual level of research competence in higher education. Because of the complexity and capacities of technology, as well as cognitive behavioral and attitudinal characteristics, modern varieties of digital literacy (Saubari and Baharuddin, 2016, p. 57). Although the capacity to write, read, and interpret text was originally defined as literacy, the word has developed and now covers numerous forms of literacy, one of which is digital literacy. The majority of Indonesians do not grasp how the digital world works. Many newcomers to digital technologies merely communicate or exchange information.

Digital literacy is not a new method to provide students with the knowledge and abilities they require. The capacity to use technology that grants us the right to access resources is a prerequisite for digital literacy. The obvious place to start with digital literacy is the internet. Due to the digital presentation and distribution of the learning materials and content, students must now acquire certain skills in order to learn and perform better (Damayanti Peoni and Tungka, 2022). The majority of information is shared digitally, so we can quickly and readily access it from anywhere at any time. Digitally communicated knowledge creation and verification constitute literacy.

According to Gilster (1997) and Martin & Grudziecki (2006), the capacity to comprehend and use data presented in various digital forms, with a focus on analytical reasoning rather than proficiency in ICT, is known as digital literacy. Digital literacy is the ability to recognise, locate, organise, use, assess, and create meaning from digital sources (Martin and Grudziecki, 2006). Literacy is a very important state so that students can identify, comprehend, and apply what students learn in the classroom in the 21st century. Whether someone can recognize, locate, retrieve, store, organize, evaluate, and determine they understand the value and use of digital data, they are proficient in using digital tools. According to Christiani et al. (2022), Ferrari (2013), Lankshear and Knobel (2006), and others, students who are literate in digital communication have the ability to communicate and share resources online, work in groups, join communities, and show that they understand and respect other cultures all while studying in a digital setting.

Ferrari (2013) further elaborated digital competence into five key areas: information, communication, content creation, safety, and problem-solving. These skills are essential not only for navigating digital tools but also for supporting academic research, particularly in EFL settings where language, technology, and academic performance are closely intertwined.

The previously stated digital literacy facilitates the comprehension and application of technology for education. This involves looking for and critically assessing material to serve as learning resources, converting those resources into digital media, and finally sharing and presenting it to peers (Pertwi, 2022). Students should be literate when it comes to information literacy, which necessitates the correct use and handling of data. And creatively, as well as to acquire it quickly and effectively (from reliable sources). The capacity to deal with information literacy should also be cultivated when learning a language. In Surah Al-Hujurat, Verse 6 of the Quran, Allah Ta'ala said:

اَيُّهَا الَّذِينَ آمَنُوا اِنْ جَاءَكُمْ فَاسِقٌ بِنَبَاٍ فَتَبَيَّنُوا اَنْ تُصِيبُوا قَوْمًا
بِجَهَالَةٍ فَتُصْحَبُوا عَلٰى مَا فَعَلْتُمْ نَادِمِينَ

In the verse above, Allah Ta'ala says to check any news that an evildoer offers you so you don't unintentionally hurt others and then regret what you did. This verse emphasizes the importance of verifying information before accepting or acting upon it, a principle that aligns closely with digital literacy and ethical research practices. In the digital era, students are constantly exposed to vast

amounts of information, not all of which is valid or trustworthy. As such, cultivating the habit of critically evaluating information sources becomes both an academic and spiritual responsibility.

EFL students must have access to a lot of material on the internet since we live in a time when information is released rapidly. They must accomplish this by using their digital literacy skills to the fullest, which include analyzing data, synthesizing ideas, and working with others online (Frisch et al., 2018). Students can enhance their critical thinking and self-efficacy by simultaneously honing their inquiry learning abilities via the use of digital resources (Frisch et al., 2013). The improvement of students' critical thinking is mediated by their interaction with resources. In Indonesia's Islamic higher education system, there are still unanswered issues about whether students' academic progress has benefited from the easy access to technology or whether it has not been adequately exploited to its full potential.

Education is an essential marker of a country's progress, and Indonesia ought to strive to develop its education system in alongside with civilizational progress (Nawawi et al., 2020). In the 21st century, students must be able to think critically, laterally, and systematically, particularly when solving problems. Critical thinking involves interpreting, analyzing, evaluating, inferring, and explaining information to make informed conclusions based on concepts, approaches, criteria, and context.

According to Facione (1990), critical thinking is a purposeful, self-regulatory judgment that includes interpretation, analysis, evaluation, inference, explanation, and self-regulation. These cognitive skills allow students to construct logical arguments, evaluate research findings, and make informed academic decisions. For EFL students, critical thinking is further complicated by the need to express these complex thought processes in a second language (namely, academic English) which demands additional linguistic precision and structure.

In Surah Ali Imran, Verse 190-191 of the Quran, Allah Ta'ala said:

إِنَّ فِي خَلْقِ السَّمُوتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لَآيَاتٍ لِأُولَى
الْأَلْبَابِ ۝ ١٩٠

الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ
السَّمُوتِ وَالْأَرْضِ ۚ رَبَّنَا مَا خَلَقْتَ هَذَا بَاطِلًا ۖ سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ
۝ ١٩١

In the verse above, Allah Swt explains that one of the functions of reason is as a tool to obtain knowledge as objective truth, besides Allah Swt also created the senses and al-qalb to be able to obtain knowledge. This verse encourages reflection and deep thinking on the signs of Allah, highlighting the importance of using intellect and reason as a means to attain knowledge. In the context of higher education, especially in Islamic institutions, this serves as a reminder that critical

thinking is not only an academic tool but also a form of worship when used to seek truth and understanding through ethical scholarship.

Teaching with a focus on research is becoming increasingly popular in higher education. According to Böttcher and Thiel (2018), this phrase broadly refers to all of those instructional strategies that provide students the chance to advance their research proficiency. Islamic higher education seeks to assist students in developing their critical thinking skills as well as their research competency by providing them with opportunities to acquire the abilities necessary to deal with the rapidly changing landscape of information and communication technologies. Nevertheless, the first investigation revealed that not all Indonesian Islamic universities provide study their students with the best alternatives to formal education that might help them become more proficient users of technology, thinkers, and researchers.

Despite the growing accessibility of digital tools, there remains a significant gap between students' technological access and their actual academic performance. This is especially evident in Islamic higher education institutions in Indonesia, where students are provided with various academic and digital resources, yet not all of them exhibit sufficient research competence. Some rely heavily on digital aids without truly understanding the processes of academic reasoning, evidence evaluation, and ethical scholarship. These gaps indicate that digital tools alone are insufficient without accompanying cognitive and academic skills.

Several previous studies conducted research on the level of critical thinking skill and digital literacy. The first one of those is the study conducted by Nawawi et al. (2020), the study aims to assess students' critical thinking skills at Muhammadiyah High School in Palembang. The study found that students at Muhammadiyah High Schools in Palembang City had varying levels of critical thinking skills, with 1.85% scoring extraordinarily high, 14.5% scoring top, 66.6% scoring medium, 16.4% scoring low, and 0.5% scoring extremely low (Nawawi et al., 2020). The second one of those is the study conducted by Indonesian scholars, they have talked about how proficient students are with digital literacy. The study aims to measure the level of digital literacy among 106 students of junior high school, grade 8, in three public middle schools in Central Sulawesi's Mori Atas sub-regency and Morowali regency. The result found that study is the students at an intermediate level of digital literacy (Damayanti Peoni and Tungka, 2022).

Indah et al. (2022) conducted a study on the correlation between students' research competency, critical thinking skills, and technology use in the digital era. This study revealed that the research outcomes of English as a Foreign Language (EFL) students at two universities (UIN Malang and IAIN Kediri) show a significant correlation between competence in research and competency with digital tools. This suggests, in respect to the nonexistent correlation between digital literacy and critical thinking ability, that improving one's critical thinking ability is not usually facilitated by digital literacy (Indah et al., 2022). Theoretically, the findings on the optimal model of the relationships among students' technological

engagement, critical thinking abilities, and research competency can further our knowledge of how critical thinking theory is applied in science (Paul and Elder, 2019).

However, most of these studies addressed the variables separately or employed different instruments and participant contexts. Unlike these studies, the present research combines these three perspectives by both measuring the level of each variable and analyzing the correlation between them using a test-based approach in an EFL setting. This research seeks to fill that gap

Therefore, this recent study was conducted to evaluate the level of student's research skills, digital literacy, and critical thinking. This study also determining whether there is a significant correlation between the digital literacy, critical thinking skills, and research competency of EFL students. The following analysis investigated the assumptions that the greater the students' interaction with gadgets or other information technology equipment, the far better their research skills. Furthermore, it investigates if the higher the critical thinking skills, the better the students' research competency. Specifically, it seeks to identify how digital literacy and critical thinking contribute simultaneously to students' research competence. By identifying the strengths and weaknesses of each component, this research intends to provide meaningful insights that can help educators and institutions design more effective strategies for academic development. Ultimately, it is expected that this study will contribute to improving the quality of academic research among EFL students in the digital era.

B. Definition of Key Terms

The writer will define key phrases related to the title in order to prevent any misunderstandings about the study:

1. English as Foreign Language (EFL) Student

In this study, the term EFL students refers specifically to eighth-semester students enrolled in the English Education Department at UIN Antasari Banjarmasin. These students were selected as research participants because they had already taken research-related courses and were conducting or had completed their undergraduate thesis, making them relevant subjects for investigating research competence, digital literacy, and critical thinking skills in an EFL academic context.

2. Research Competence

Research competence in this study refers to the EFL students' ability to understand, design, and conduct academic research, particularly in the context of writing an undergraduate thesis. It includes skills such as formulating research problems, reviewing literature, applying appropriate methodology, analyzing data, and drawing conclusions.

3. Digital Literacy

In the context of this research, digital literacy refers to the ability of EFL students to effectively use digital tools and technologies in academic settings.

It includes competencies such as locating and evaluating online information, communicating, maintaining digital safety, and producing content.

4. Critical Thinking Skill

Critical thinking skill in this study refers to the students' ability to analyze, evaluate, and reflect on information in a logical and purposeful manner, particularly in academic tasks such as reading academic texts, writing argumentative essays, and engaging in research activities. This definition is grounded in Facione's (1990) theoretical framework, which includes core sub-skills such as interpretation, analysis, evaluation, inference, explanation, and self-regulation.

C. Research Questions

1. What is the level of digital literacy, critical thinking skill, and research competence among EFL students?
2. Is there any statistically significant correlation between the EFL students' digital literacy and critical thinking skill to their research competence?
3. To what extent do EFL students' digital literacy and critical thinking skills contribute simultaneously and partially to their research competence?

D. Objectives of Study

Based on the issues described in the background of the study and the research questions that have been formulated, this study is intended to achieve the following objectives:

1. To measure the level of digital literacy, critical thinking skills, and research competence among EFL students in the English Education Department of UIN Antasari Banjarmasin.
2. To investigate whether there is a statistically significant correlation between digital literacy and critical thinking skills toward research competence.
3. To determine the extent to which digital literacy and critical thinking skills contribute simultaneously and partially to students' research competence.

E. Significance of Study

The significance of this study lies in its potential to contribute both theoretically and practically to various stakeholders in the field of English language education and academic research, particularly within the EFL context.

1. For students, this study provides insights into their current level of digital literacy, critical thinking skills, and research competence. Through this awareness, students are expected to identify their strengths and weaknesses and take necessary steps to enhance their academic capabilities, particularly in conducting research using digital tools and critical reasoning.
2. For teachers and lecturers, the findings offer valuable information for improving instruction related to digital skills, critical thinking development, and research training. Teachers can use the results to design interventions or classroom strategies that enhance students' readiness for academic inquiry and

thesis writing, especially in Islamic higher education institutions where integrity and literacy are equally emphasized.

3. For curriculum developers and educational institutions, this research supports the importance of integrating digital literacy and critical thinking into research-related courses. Understanding the correlation among the three variables can help refine syllabi and learning outcomes to ensure they meet the demands of 21st-century academic skills and digital environments.
4. For future researchers, the study can serve as a reference for expanding or replicating similar research in broader educational contexts or with different populations. Future researchers may also adapt the instruments used in this study or further explore the contribution of other cognitive and non-cognitive variables to students' research competence.

F. Hypothesis

The hypotheses in this study are formulated based on theoretical foundations and the findings of previous research. These hypotheses aim to examine whether digital literacy and critical thinking skills significantly correlate with and contribute to students' research competence. The hypotheses are stated as follows:

Ha: There is a statistically significant correlation and simultaneous contribution between EFL students' digital literacy and critical thinking skills toward their research competence.

Ho: There is no statistically significant correlation and simultaneous contribution between EFL students' digital literacy and critical thinking skills toward their research competence.

G. Assumption of Study

This study is based on several underlying assumptions regarding digital literacy, critical thinking skills, and research competence that provide a logical and theoretical foundation for conducting the research and interpreting the findings. These assumptions serve as the foundation of the study, ensuring logical expectations and justifiable interpretations of the findings. The primary assumptions in this study are as follows:

1. Students with higher levels of digital literacy are more likely to demonstrate stronger research competence, as digital literacy enables students to access, evaluate, and utilize digital information critically and ethically in academic settings.
2. Students with higher critical thinking skills are expected to show higher research competence, since critical thinking is essential for formulating logical arguments, analyzing data, and drawing valid conclusions in academic research.
3. The multiple-choice test instruments are assumed to be valid and reliable for measuring the levels of digital literacy, critical thinking skills, and research competence among EFL students.

4. Participants are assumed to respond honestly and thoughtfully to the test questions, ensuring the credibility of the collected data.

By establishing these assumptions, the study ensures a strong methodological and theoretical base, supporting a systematic investigation into the correlation and contribution of digital literacy and critical thinking skills toward research competence among EFL students.