THESIS

CO TEACHING WITH AI:

LECTURERS' READINESS AND AI LITERACY IN ADOPTING GENERATIVE AI IN HIGHER EDUCATION



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MOTTO AND DEDICATION

MOTTO:

أُطْلُبِ العِلْمَ وَلاَ تَكْسَلْ فَمَا # اَبْعَدَ الخَيْرَ عَلَي اَهْلَ الكَسَلِ

"Carilah ilmu dan usir kemalasanmu. Karena sungguh, keberuntungan dan kesuksesan akan berlari sekencang mungkin menjauhi orang-orang yang telah menganggap kemalasan sebagai rumah mereka."

(شرح لامية ابن الوردي)

DECICATION:

With deep gratitude and boundless love, I dedicate work to:

1. My beloved parents, whose endless love has been the light that guides me through every step of my journey, whose sincere prayers have strengthened me in moments of doubt and challenge, whose sacrifices have paved the way for my dreams to grow, whose unwavering support has given me the courage to keep moving forward, and to whom I dedicate this achievement with all my gratitude, respect, and love.
2. To my dear brother, who has always been a strong support whenever I faced challenges in life, who has guided and encouraged me during difficult times, who has motivated me to keep moving forward whenever I felt weak, and who has become an important part of my journey in completing this thesis.
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DECLARATION OF AUTHENTICITY OF THESIS

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I hereby declare that this thesis entitled "Co Teaching with Ai: Lecturers' Readiness and Ai Literacy in Adopting Generative Ai in Higher Education" is my original work. To the best of my knowledge, this thesis contains no material previously published or written by another person, except where appropriate acknowledgment is made in the text. I also declare that this thesis has not been submitted for any degree or diploma at any other institution.

I take full responsibility for the content of this thesis and the accuracy of the information presented herein. Any ideas, findings, or quotations from the work of others have been properly cited and referenced in accordance with academic standards. If any violation of academic integrity is found in the future, I am willing to accept the consequences in accordance with the regulations of the university.



Banyuwangi, 09 Juni 2026

Declaration,



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ABSTRACT OF ENGLISH

Mubarokah, Naza ilil. 2026. Co Teaching with Ai: Lecturers' Readiness and Ai Literacy in Adopting Generative Ai in Higher Education. Thesis. English Education Department. Faculty of Tarbiya and Teachers Training. Universitas KH. Mukhtar Syafaat (UIMSYA) Blokagung Banyuwangi. Advisor: Dr. Zulfi Zumala Dwi Andriani, M.A.

Keywords: AI Co-Teaching, Lecturers' Readiness, AI Literacy, Generative AI, Higher Education.

The rapid development of Generative Artificial Intelligence (AI) has changed teaching and learning practices in higher education. This study aims to analyse lecturers' readiness and AI literacy in adopting AI co-teaching in higher education. A qualitative descriptive method was used, and the data were collected through interviews, observation, and documentation involving seven lecturers from the English Language Education Study Program at University of KH. Mukhtar Syafaat. The findings show that lecturers generally have positive perceptions of Generative AI to support teaching, research, and academic tasks. The study also reveals that lecturers demonstrate technical AI literacy, pedagogical AI literacy, ethical awareness, and readiness to collaborate with AI in the learning process. Although AI is considered helpful in improving efficiency, material development, and learning support, lecturers emphasize the importance of critical thinking, ethical use, academic integrity, and maintaining human control over AI-generated content. The findings suggest that successful AI co-teaching requires not only technological skills but also strong AI literacy, continuous professional development, and institutional support. Therefore, enhancing lecturers' readiness and AI literacy is essential for creating effective Human–AI teaching partnerships and supporting the future of higher education.

ABSTRAK INDONESIA

Mubarokah, Naza ilil. 2026. Co Teaching with Ai: Lecturers' Readiness and Ai Literacy in Adopting Generative Ai in Higher Education. Thesis. English Education Department. Faculty of Tarbiya and Teachers Training. Universitas KH. Mukhtar Syafaat (UIMSYA) Blokagung Banyuwangi. Advisor: Dr. Zulfi Zumala Dwi Andriani, M.A.

Kata Kunci: AI Co-Teaching, Kesiapan Dosen, Literasi AI, AI Generatif, Pendidikan Tinggi.

Perkembangan pesat Artificial Intelligence (AI) Generatif telah mengubah praktik pengajaran dan pembelajaran di pendidikan tinggi. Penelitian ini bertujuan untuk menganalisis kesiapan dosen dan literasi AI dalam mengadopsi AI co-teaching di pendidikan tinggi. Penelitian ini menggunakan metode deskriptif kualitatif dengan pengumpulan data melalui wawancara, observasi, dan dokumentasi yang melibatkan tujuh dosen Program Studi Pendidikan Bahasa Inggris di Universitas KH. Mukhtar Syafaat. Hasil penelitian menunjukkan bahwa dosen pada umumnya memiliki persepsi positif terhadap AI Generatif dan menggunakan berbagai aplikasi AI untuk mendukung kegiatan pengajaran, penelitian, dan tugas akademik. Penelitian ini juga mengungkapkan bahwa dosen telah menunjukkan literasi AI teknis, literasi AI pedagogis, kesadaran etis, serta kesiapan untuk berkolaborasi dengan AI dalam proses pembelajaran. Meskipun AI dianggap membantu meningkatkan efisiensi, pengembangan materi, dan dukungan pembelajaran, dosen tetap menekankan pentingnya berpikir kritis, penggunaan AI secara etis, menjaga integritas akademik, serta mempertahankan kendali manusia terhadap konten yang dihasilkan AI. Temuan penelitian menunjukkan bahwa keberhasilan AI co-teaching tidak hanya memerlukan keterampilan teknologi, tetapi juga literasi AI yang kuat, pengembangan profesional berkelanjutan, dan dukungan institusi. Oleh karena itu, peningkatan kesiapan dosen dan literasi AI menjadi faktor penting dalam membangun kemitraan pengajaran manusia dan AI yang efektif serta mendukung masa depan pendidikan tinggi.

FOREWORD

Alhamdulillah, all praise be to Allah SWT, this thesis can be completed thanks to His grace, blessings, and love.

May peace and blessings always be upon the Prophet Muhammad SAW, who is a role model for his people.

The author fully realizes that the successful completion of this thesis cannot be separated from the support of various parties. Therefore, the author would like to express his deepest gratitude and appreciation to:

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No ivory is cracked, and no human being is perfect. This thesis is also not free from shortcomings. Therefore, with great humility, the author greatly expects constructive suggestions and criticisms. The

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Banyuwangi, 09 juni 2026

Naza Ilil Mubarokah

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CHAPTER I

INTRODUCTION

1.1 Research Background

Artificial intelligence (AI) is an analytical system, personalize learning, and provide automatic feedback. Chatbots, data analytics systems, and adaptive learning are examples of AI technologies that have assisted instructors and students in increasing the efficacy and efficiency of learning (Lazányi, n.d.). In addition to being a tool for information access, A new stage in the evolution of higher education has begun with the advent of Artificial Intelligence (AI). particularly Generative AI (GenAI) such as Chat GPT, Claude, and Gemini, is increasingly being used in higher education. GenAI can generate text, images, and other digital media that can support teaching, research, and academic communication (Shata & Hartley, 2025). However, its use has drawn a variety of responses from educators, ranging from acceptance to concerns regarding ethics, reliability, and its impact on the learning process.

Education is being more and more impacted by the advancement of artificial intelligence (AI), especially generative AI (GenAI) (Krause et al., 2025) . Studies have demonstrated that through more interactive and customized learning, GenAI can enhance productivity, efficiency, material comprehension, academic achievement, creativity, and problem-solving abilities (Zhai et al., 2021). Teachers think big data and AI integration will have a tremendous impact on education and society. Additionally, they are open to using AI-based teaching and learning systems because they perceive potential advantages including more individualized instruction, fewer administrative duties, assistance for children who are having difficulty, and enhanced family contact (Department of Education, Chonnam National University, Gwangju City, South Korea & Davis, 2024).

The primary advantages of integrating artificial intelligence (AI) into education revolve around offering customized and flexible writing assistance outside of the traditional classroom setting. This is made possible by AI technologies, including sophisticated grammar checkers and clever chatbots, which provide personalized,

real-time feedback that is far more challenging to obtain during learning (Nguyen et al., 2025). Lecturers can utilize this information as a foundation for creating learning strategies that are in line with technology advancements (Kim et al., 2025). By ensuring that the application of generative AI in education is done ethically, inclusively, and in a way that promotes long-term gains in learning quality, our research helps institutions swiftly adjust to the digital transformation.

AI makes it easy to see how learning affects skills, especially writing and problem-solving. The results give students a more critical understanding of the advantages and disadvantages of using AI (Malik et al., 2023). This page can be used as a reference for lecturers to reevaluate learning methodologies that are pertinent to technological advancements (Mah & Groß, 2024), As a result, using AI to increase learning effectiveness while identifying major obstacles like low institutional support and a lack of AI literacy also sheds light on how lecturers' roles in the technology-based learning environment are evolving(Buele & Llerena-Aguirre, 2025).

Despite the widespread adoption of AI, significant gaps remain in the research literature. Currently, we do not fully understand the impact of AI on writing processes, quality, and outcomes at the doctoral level. Most existing research focuses on lower levels of education or addresses AI in general, and there is an urgent need to analyse how AI is transforming the development of advanced writers (Parker et al., 2025). To prevent people from blindly adopting AI recommendations, its effective use necessitates clear instruction and critical evaluation. AI can be a useful companion, but it cannot take the place of the creativity and critical thinking needed for real learning (Ramadani & Nova Lingga Pitaloka, 2025).

Literature shows that the application of co-teaching with AI in higher education is increasingly seen as a new pedagogical approach that allows lecturers to utilize Generative AI (GenAI) as a co-pilot in planning, delivering materials, and assessing learning (Qian, 2025). However, lecturers' readiness to adopt GenAI is greatly influenced by psychological and technological factors, especially perceived usefulness and ease of use as explained in the

Technology Acceptance Model and UTAUT frameworks, which consistently place perceived usefulness as the strongest predictor of adoption intention (Wainaina & Sun, 2025). Challenges such as technological anxiety, ethical considerations, and concerns about GenAI's impact on academic integrity often act as barriers to adoption even though many lecturers recognize the potential for learning efficiency and innovation (Krause et al., 2025).

The development of Generative Artificial Intelligence (GenAI) has brought about significant changes in higher education practices (Schallert-Vallaster et al., 2025). Technologies like ChatGPT, Gemini, and Copilot are no longer merely used as administrative tools, but are increasingly positioned as pedagogical partners capable of working alongside lecturers a concept known as co-teaching with AI. In this model, AI plays a role in creating learning materials, providing automated feedback, generating practice examples, and assisting with learning personalization, while the lecturer remains the primary director of the teaching process. Research shows that AI can improve the efficiency of material creation and enrich learning interactions, but this collaboration can only be effective if the lecturer has sufficient AI literacy (Ma'arif et al., 2025).

For Lectures to be able to utilize technology critically and responsibly to AI is typically used in the learning planning phase by lecturers who employ it in their instruction. They employ AI to assist in creating more methodical teaching materials, creating content outlines, summarizing scientific publications, and creating Semester Learning Plans (RPS) (Junus et al., 2021). AI can be utilized in the classroom as a conversation tool, as a source for case studies or simulations, or as a component of assignments that require students to employ AI prompts during the implementation phase of learning. In this sense, artificial intelligence (AI) supports academic inquiry and critical thinking rather than taking the position of instructors (N. Liu, 2025).

AI literacy is essential. AI literacy includes knowledge of bias, accuracy, ethical use, data privacy, and the capacity to assess AI output in addition to the technical abilities required to use GenAI technologies (Chanda et al., 2025). High AI literacy lecturers are

more equipped to use AI effectively in the classroom, lower the possibility of false information, and create safe, academically compliant directions and assignments. According to recent studies, in order to guarantee successful digital transformation, educational institutions must create AI literacy training especially for teachers (Ng et al., 2023).

In addition to AI literacy, lecturer readiness is a crucial component determining the effectiveness of AI-assisted learning. Psychological factors (attitudes and interest in technology), knowledge, digital literacy, access to infrastructure, and institutional support all contribute to readiness (Khlaif et al., 2024). Perceived usefulness and perceived ease of use are crucial elements influencing lecturers' readiness to use AI, according to studies on educational technology adoption. Positive technology experiences increase the likelihood that lecturers will embrace the use of AI in their teaching. On the other hand, GenAI adoption is often hampered by a lack of training, concerns about academic integrity, and unclear policies (Balaskas et al., 2025).

At the same time, studies on AI literacy emphasize that lecturer competencies include not only technical skills, but also conceptual, ethical, and social understanding that enable the responsible use of GenAI in a co-teaching context (Kennedy & Gupta, n.d.). In addition to individual readiness, effective GenAI integration relies heavily on institutional policies, professional training support, and curriculum and assessment adaptations that align with AI capabilities (Haroud & Saqri, 2025). Overall, the literature confirms that successful co-teaching with AI in higher education requires a combination of lecturer preparedness, comprehensive AI literacy, and institutional structural support for GenAI to function as an effective pedagogical partner.

The indicate that ChatGPT has the potential to optimize the learning process, improve the quality of teaching, and improve educational services in the future. In similar findings (Akinyemi & Ezekiel, n.d.) The title University of Ibadan Lecturers' Perception of the Utilisation of Artificial Intelligence in Education, it was emphasized that lecturers believe AI will make a significant contribution to the education system, including assisting research

activities, improving teaching methodologies, facilitating interactive learning, and providing fast and accurate learning support to students. This paper also discusses how AI can help explain difficult concepts, diagnose learning problems, and provide useful feedback to improve teaching strategies. In general, lecturers perceive that AI will improve the quality of learning while reducing their workload. The results of this study indicate that 98% of the respondents believe that AI will be able to optimize the higher education industry. This is evident in the responses as the respondents indicated that AI would be able to replace lecturers, when necessary, help enhance teaching methodology as well as help streamline educational systems and processes. This supports the author in seeking the perceptions of lecturers at one of the universities in Banyuwangi for research.

The increasing integration of artificial intelligence (AI) into academic writing offers tangible benefits to lecturers, significantly contributing to the education system. However, understanding lecturers' perceptions of these tools is crucial, as research has also revealed various reservations and concerns among lecturers. Some lecturers believe that the use of AI has the potential to reduce human interaction in the teaching and learning process. Other concerns have been raised regarding the risk of loss of privacy, the high cost of acquiring and maintaining the technology, and the potential for significant changes in the role of educators. While opinions regarding the risk of unemployment due to AI are almost evenly divided, some lecturers still express concerns that automation could impact job stability in the education sector.

1.2 Research Problem

What is the lecturers' perception of adopting generative AI in higher education?

1.3 Research Objectives

To analyse the lecturers' readiness of the challenges and AI literacy in adopting generative AI in higher education.

1.4 Research Significances

This research has theoretical, practical, and policy significance for the development of AI based higher education.

Theoretically, this research enriches the study of co teaching with AI as s pedagogical partner and examining the role of lecturers' AI readiness and literacy in its adoption, detailed as follows:

1.4.1 Theoretical Benefits

This research is expected to provide theoretical contributions to the development of higher education studies, particularly regarding the concept of artificial intelligent based co teaching. Theoretically, this research enriches the literature on lecturer readiness and AI literacy as key factors in the implementations of generative AI in higher education environment. The findings of this study can also serve as a conceptual basis for the development of collaborative learning models between lectures and AI, as well as broaden understanding of the integration of AI technology into modern pedagogical practices.

1.4.2 Practical Benefits

This research helps universities and lecturers understand the level of AI readiness and literacy in integrating generative AI into the learning process. The results of this study can serve as a concrete guide for lecturers in utilizing AI as co teaching partner to design teaching materials, provide feedback, and conduct learning evaluations more effectively and efficiently, then lecturers' time can be focused on mentoring and developing student potential. Furthermore, the findings of this study support improving the quality of learning that is more innovative, adaptive, and relevant to students' needs in the digital era, while also providing a basis for higher education institutions in developing policies, training programs, and strategies for developing ethical and sustainable AI based curriculum.

1.5 Definition of Terms

1.5.1 Lecturers' Readiness

Lecturers' readiness refers to their degree of competence, technical proficiency, psychological preparedness, and attitude toward meeting the

demands of their profession, such as dealing with online learning, curriculum changes, or the use of educational technology. This includes their knowledge, skills, experience, and confidence that they can successfully complete these tasks This definition is reflected in research that evaluates lecturers' readiness to teach online classes as a combination of technical skills, experience using learning management systems (LMS), course planning, and time and communication management all of which are aspects of readiness that lecturers must have in order for online learning to be implemented successfully. (Junus et al., 2021).

1.5.2 Artificial Intelligence

Artificial intelligence (AI) is a field of computer science that focuses on developing systems or machines capable of mimicking human cognitive abilities, such as learning, reasoning, understanding language, and making decisions independently based on specific data and algorithms (Holmes & Luckin, 2016). AI is designed to adapt to its environment, improve its performance through machine learning, and perform tasks that typically require human intelligence, whether in the context of education, healthcare, industry, or everyday life. With these capabilities, AI is viewed not only as a computational technology, but also as a socio-technical system that influences how humans work, learn, and interact (Floridi et al., 2018).

1.5.3 Generative AI

Generative Artificial Intelligence (generative AI) is a branch of artificial intelligence that encompasses machine learning systems and computational models capable of learning patterns and structures from training data to generate new meaningful content, such as text, images, audio, video, or other forms of data similar to the original data but which are new and original creations. These models use generative techniques such as deep neural networks to understand data distribution and create new samples based on insights learned from their training data, enabling them

to perform creative tasks that were previously only done by humans, such as creating text narratives or visual designs. This approach reflects a shift from conventional AI, which only classifies or predicts existing data, to the ability to automatically generate new content based on a deep understanding of the data being analysed (Sengar et al., 2024).

1.5.4 Higher Education

Higher education refers to formal education conducted after secondary education and includes diploma, bachelor's, master's, and doctoral programs offered by universities, institutes, or similar higher education institutions. Higher education focuses not only on the mastery of advanced knowledge and professional skills, but also on the development of critical thinking skills, scientific research, and contributions to social, economic, and cultural development in society. In a global context, higher education is seen as a strategic institution that plays a role in the production and dissemination of knowledge, innovation, and the development of competitive human resources at the national and international levels (Ali & Jalal, n.d.).

CHAPTER II

REVIEW OF RELATED LITERATUR

2.1 Theoretical Review

This chapter presents a review of related studies, covering several points including Artificial Intelligent, lecturers' readiness, AI literacy, generative AI, and higher education.

2.1.1 Lecturers' Readiness

a. Definition of Lecturers' Readiness

The term lecturers' readiness

lecturers' readiness to adopt and implement effective teaching and learning methods, particularly regarding the use of technology, artificial intelligence (AI), and digital learning approaches in higher education (Luo & Day, 2026). (Junus et al., 2021). Readiness is described as a person's state or condition that allows them to effectively respond to or handle a specific event. Knowledge, pedagogical abilities, technical preparedness, professional dedication, and the drive and attitude to fulfil the tasks of teaching, learning, and innovation are all included in the concept of lecturer preparation (Monica et al., 2025).

The ability of instructors to perform their professional responsibilities in higher education institutions, encompassing cognitive (knowledge), affective (motivation and attitude), and psychomotor (skills) aspects in reaction to changes or new demands in teaching, is sometimes referred to as lecturer ready (Chinwe Onyemaechi et al., 2025). According to a different definition found in the literature, faculty readiness is a condition that shows how confident, technically and psychologically equipped, and driven a faculty member is to adopt innovations or modifications in their teaching methods. In a study evaluating faculty readiness to incorporate artificial intelligence (AI) into academic teaching, for instance, readiness is defined as the degree to which faculty feel comfortable incorporating this technology in the classroom, including their perspectives, difficulties, and training requirements in order to use the technology appropriately

in the context of higher education (Reuben & Kabilan, 2024).

The ability of lecturers to adopt new teaching approaches is influenced by a variety of factors, including organizational preparedness, pedagogical readiness, technical readiness, and individual readiness for change. According to research on readiness for change, faculty members who feel capable of handling novel challenges, such as modifications to the workload reporting system or shifts in their functional roles, are said to be prepared for change (Ahmar Ahmad, 2019). The psychological state of lecturers that indicates how open they are to accepting and supporting changes taking place in higher education institutions is referred to as lecturers' willingness to change. This article defines lecturers' preparedness as having a positive outlook on organizational change, which includes the conviction that change is required, advantageous, and feasible (Meria et al., 2023).

b. The Purpose of Lecturers' Readiness for Teaching

The degree of preparedness of lecturers to carry out teaching activities effectively, including pedagogical, technical, emotional, and professional competencies, so that the teaching and learning process can go smoothly and in accordance with learning objectives, is commonly referred to as lecturers' readiness for teaching (Lo & Othman, 2023). The primary goal of lecturers' preparedness for teaching is to guarantee efficient, meticulous, and superior learning processes in higher education.

The pedagogical abilities, subject-matter expertise, psychological preparedness, and professional competencies that allow lecturers to plan, carry out, and assess learning effectively are all components of their readiness (Junus et al., 2021). When lecturers are prepared to teach, they can modify their teaching methods to meet the needs of their students and maximize the achievement of learning objectives.

Enhancing lecturers' capacity to adjust to changes in the educational system and technological advancements is

another objective of lecturer preparedness (Leoste et al., 2021). Lecturer preparedness is crucial to the successful implementation of Learning Management Systems (LMS), digital learning materials, and cutting-edge teaching techniques in the context of online education and the usage of digital technology. This preparedness encompasses not just technological aspects but also effective classroom administration, lesson planning, and high-quality academic interaction in a virtual setting (Verboom et al., 2025).

In general, according to (Micallef, 2025) the objectives of the study on lecturers' readiness for teaching are to assess lecturers' ability to respond to current educational needs, evaluate their readiness for changes in the learning context, including methods and technology, and identify obstacles and training needs to improve teaching effectiveness.

a) Assessing lecturers' ability to respond to current educational needs
   The ability of lecturers to identify, comprehend, and effectively address changing educational needs such as curriculum modifications, industry trends, diverse student needs, educational technology, and 21st-century competency requirements must be evaluated.
b) Evaluating readiness for changes in the learning context, including methods and technology
   a systematic process of assessing the extent to which individuals (lecturers/teachers), groups, or educational institutions are prepared to face significant changes in the context of learning especially changes in teaching methods and the use of educational technology. The importance of this kind of readiness evaluation stems from the fact that changes in education frequently bring with them issues like resistance to new technology, a lack of professional training, and the requirement for sufficient institutional support.
c) Identify barriers and training needs to improve teaching effectiveness.

Educational institutions and researchers must first identify the obstacles faced by lecturers and teachers to increase teaching efficiency Next, they must ascertain the training requirements that must be fulfilled in order to overcome these obstacles. Time constraints, a lack of access to pertinent training, a lack of technological infrastructure, a lack of professional motivation, and a lack of structural support in educational institutions (such as management or educational policies) that support the enhancement of teacher competence are some of the common barriers identified in the literature.

2.1.2 Artificial Intelligence

a. Definition of Artificial Intelligence

A subfield of computer science that investigates and creates machines or systems that are intended to replicate human intelligence in a variety of tasks, including learning, reasoning, making decisions, and solving problems (Gil De Zúñiga et al., 2024). The ability of computer systems or artificial entities to carry out a variety of tasks that normally require human intelligence, such as learning, reasoning, making decisions, solving problems, and understanding external data, is known as artificial intelligence (AI) (Wang, 2019).

In addition to being a data processing machine, artificial intelligence (AI) is a technology with a number of fundamental features and capabilities that make it advanced in comparison to standard computer systems (Xu et al., 2021). AI can carry out activities like learning, reasoning, decision-making, natural language processing, and adapting to new facts that normally need human intelligence. These traits result from methods like deep learning and machine learning, which are the foundation of contemporary AI systems (Goertzel, 2014).

In conclusion the term "artificial intelligence" (AI) is a synthetic statement that encapsulates the ideas, traits, and consequences of AI as a technology that uses computational systems to duplicate and enhance human

cognitive capacities (Gignac & Szodorai, 2024). AI is a branch of science and technology that enables machines to learn from data, reason, make decisions, and adapt on their own in a variety of application scenarios, according to a survey of the literature. This finding demonstrates that AI serves as an adaptable system that facilitates effective, data-driven decision-making and problem-solving in addition to being an automated tool (Ofosu-Ampong, 2024).

b. The Purpose of Artificial Intelligence in Higher Education

The application of artificial intelligence (AI) in higher education has a number of strategic goals pertaining to raising university education standards (Pacheco-Mendoza et al., 2023). Artificial Intelligence (AI) applications such as ChatGPT, Grammarly, and Gamma serve as key tools in students' academic activities, particularly in academic writing. AI has proven effective in improving work efficiency and the quality of writing, as well as helping students develop ideas, refine their language, and find references (Purnomo & Andriani, 2025). AI is first used to improve personalized learning by customizing teaching strategies and resources to each student's needs and skill level. In accordance with their learning preferences, this enables pupils to receive a more effective and pertinent educational experience. According to research, AI technology can quickly provide feedback and modify information to make learning more tailored to each student's needs (García-Martínez et al., 2023).

According to Archana et al. (2025), the use of artificial intelligence in higher education aims to support student understanding and learning, improve the quality and efficiency of academic writing, support research activities, and prepare students for an artificial intelligence-based work environment (Archana et al., 2025).

a) To support student understanding and learning

AI is used to help students understand concepts, topics, and code, as well as provide a more personalized and interactive learning environment.

b) To improve the quality and efficiency of academic writing

AI is used for academic writing, grammar checking, paraphrasing, and plagiarism detection, enabling students and researchers to produce higher quality scientific work more efficiently.

c) To support research activities

AI is used throughout the research cycle, from literature searching, PDF summarizing, literature reviewing, to research report writing.

d) To prepare students for an artificial intelligence-based work environment

The integration of AI in lectures aims to equip students with the AI skills and literacy needed in technology-based work and research.

Demonstrates that AI has become an essential component of the contemporary academic ecosystem as most researchers and students have incorporated it into their learning and research endeavours. To ensure that AI use is appropriate and does not jeopardize academic integrity, it must be tempered with greater AI literacy, knowledge of academic ethics, and explicit institutional policies.

AI can serve as both an assistive technology and a strategic instrument to enhance the calibre, relevance, and inclusivity of higher education in the digital era with a prudent and targeted strategy.

2.1.3 Generative AI

a. Definition of Generative AI for Material Development

Generative artificial intelligence is being used more and more in educational settings as a technique for developing instructional materials that go beyond just delivering content (Ruiz-Rojas et al., 2023). Teachers can lessen their burden and concentrate more on pedagogical design and student engagement by using generative AI models, such as big language models, to produce text, learning activities, interactive exercises, and problem sets that match curriculum objectives. This type of AI-assisted content

production makes it possible to create learning materials that are context-sensitive and adaptive to the various demands and learning styles of students (Mikroyannidis et al., 2024).

Additionally, by including learner context, such as past knowledge and interests, into the production process, generative AI for material development facilitates dynamic personalization of educational content (Jauhiainen & Garagorry Guerra, 2024). Artificial intelligence (AI) systems such as ChatGPT can generate personalized explanations, examples, and learning paths that improve learning materials' accessibility and relevance, potentially boosting learning outcomes and motivation. Teachers can produce adaptive materials that suit a variety of learners while preserving academic quality and coherence by fusing generative capabilities with instructional design concepts (Ng et al., 2025).

b. The Purpose of Generative AI for Material Development

With its capacity to automate and customize the production of educational materials, Generative Artificial Intelligence (GenAI) has started to transform higher education methods in the current digital era (Qian, 2025). GenAI presents lecturers with a strategic chance to enhance the effectiveness and calibre of instructional material development, rather than merely a new instrument. By using this technology, instructors can create course materials that are pertinent to the various needs of their students while overcoming traditional obstacles like time and resource limitations (McGrath et al., 2025).

The objective for professionalizing instructors in higher education also includes enhancing lecturers' proficiency in using GenAI to create educational materials (Y. Liu et al., 2023). In addition to promoting creativity in instructional design based on data and student needs, mastering the usage of GenAI technologies helps lecturers stay relevant in the face of rapid advancements in learning technology. Therefore, the goals of implementing GenAI encompass broader dimensions, such as enhancing the efficacy of the learning process, adjusting to digital problems, and

creating resources that can satisfy future expectations of higher education(Tang & Cooper, 2025).

According To (Batista et al., 2024) Generative Artificial Intelligence (GenAI) has become an innovative tool in education that enables lecturers to accelerate and simplify the process of material development or teaching material development. One of the main objectives of using GenAI in the creation of learning materials is to produce instructional materials that are faster, more varied, and of higher quality, to be more responsive to diverse learning needs and to encourage the improvement of lecturers' digital competence and teaching effectiveness.

a) To produce instructional materials that are faster more varied, and of higher quality
   The creation of educational materials including lecture notes, modules, practice questions, and adaptive learning exercises that are suited to the requirements of students with different skill levels is made possible by the use of GenAI. According to a thorough analysis of the literature, GenAI greatly enhances instructional design capabilities by making it possible to automate content and customize learning materials for various learner types.
b) To be more responsive to diverse learning needs
   The capacity of GenAI to produce content that can be customized to certain pedagogical situations enables instructors to create instructional materials that are both educational and didactically relevant, enhancing students' learning experiences. Additionally, this gives lecturers the chance to incorporate adaptive learning components that can dynamically modify students' learning styles and difficulty levels. The study's conclusions show that GenAI is crucial in helping to create customized, excellent learning materials that were previously challenging to produce quickly by hand.

c) To encourage the improvement of lecturers' digital competence and teaching effectiveness

The use of GenAI technologies by lecturers to facilitate the production of instructional materials not only boosts productivity but also encourages them to develop their technological expertise and use novel teaching strategies. AI literacy skills are essential for optimizing GenAI's advantages while maintaining pedagogical integrity and critical thinking as technology develops. As a result, GenAI not only offers useful solutions for content generation but also propels higher education instructors' professional development.

2.1.4 Higher Education

a. Definition of Higher Education in highly qualified personnel

After finishing secondary education (high school or vocational school), higher education is pursued at establishments like universities, colleges, or polytechnics (Dempere et al., 2023). It typically results in an academic degree, diploma, or certificate of advanced study. It encompasses post-secondary academic and professional education.

Higher education, which is conducted by organizations like universities, institutes, colleges, and polytechnics, is the level of education undertaken following secondary education (Burke et al., n.d.). Through instruction, research, and community service projects, higher education seeks to acquire advanced knowledge, professional skills, and critical thinking abilities. Students are assisted in obtaining professional credentials and academic degrees in certain fields of study at this level (Sturm, n.d.).

Higher education is crucial to achieving fair access to and raising the standard of national education in the framework of education policy (Mello et al., 2023). Higher education must be inclusive, equitable, and pertinent to societal requirements, according to UNESCO (2020). Higher education should therefore focus on developing moral, responsible citizens who

can support sustainable development in addition to academic success.

b. The Purpose of Higher Education in highly qualified personnel

In the age of globalization, higher education is strategically important for producing competitive and high-quality human capital. In addition to being locations for the transfer of knowledge, higher education institutions also act as hubs for the development of the abilities, creativity, and critical thinking needed in today's workforce (Hunjet, n.d.). Qualified college graduates are a valuable asset to the nation in an economic and social context because they are better equipped to use technology, carry out research, and adapt to the demands of a workplace that is becoming more and more dynamic (Shukhratovna, 2025). According to research, a robust higher education system directly boosts labour productivity and economic stability by producing a workforce that is knowledgeable and skilled.

Higher education's primary goal within the framework of national development is to generate people with excellent scientific quality, technical skills, and professional competence so they may enter the workforce and support innovation and progress in the country (Trinh, 2023).

This paradigm reflects the notion that the ability of graduates to apply their knowledge in an industrial or professional setting is just as important as theoretical understanding in determining the quality of education (Khodzhaevich et al., n.d.). In order to produce graduates who are highly competitive and productive, effective higher education will provide students with professional practices and theoretical knowledge pertinent to the demands of the workplace (Sohail, n.d.).

Higher education aims to produce highly qualified workers by equipping students with knowledge, professional skills, and competencies that are in line with the needs of the job market. According to Hunjet, A. (2025) higher education functions to knowledge and skills relevant to the needs of the labour market, developing critical thinking skills for problem solving and supporting

economic and social development through the provision of competent and ethical human resources.

a) To knowledge and skills relevant to the needs of the labour market

   By imparting professional competencies, technical skills, and analytical abilities, higher education aims to close the gap between academia and the workplace, enabling graduates to adjust to shifting industry and professional demands.

b) To develop critical thinking skills for problem solving

   Highlighting the fact that graduates of higher education are expected to be not just job seekers but also creative thinkers, knowledge managers, and contributors to the advancement of professional practices and technology. In the context of a knowledge-based economy, these abilities increase graduates' value and competitiveness.

c) To supporting economic and social development through the provision of competent and ethical human resources

   Indicates that the development of a professional attitude, practical experience, and academic learning are all integrated to generate highly qualified personnel. Higher education is therefore crucial in generating graduates who are not only highly qualified academically but also socially conscious and capable of making long-term contributions to the nation and society.

2.2 Previous Study

No	Name, Year, Research Title	Article Link, OJS, Journal/ Thesis/D	Research Objectives	Research Methods	Results/ Conclusions	Similarities	Differences

		issertation Name, University Name					
1.	Malik, A. R., Pratiwi, Y., Andajani, K., Numertayasa, I. W., Suharti, S., Darwis, A., & Marzuki. (2023). Exploring Artificial Intelligence in Academic Essay: Higher Education Student's Perspective.	*International Journal of Educational Research Open*, *5*, 100296. https://doi.org/10.1016/j.ijedro.2023.100296	aimed at examining the role of higher education in producing highly qualified workers who are relevant to the needs of the labor market	This study uses a descriptive qualitative method with a literature review approach and conceptual analysis of higher education policies and practices.	The results of the study conclude that higher education plays a strategic role in producing high-quality workers through the integration of theoretical learning and practical experience.	This study is similar to other studies in emphasizing the role of higher education as a developer of human resources and an enhancer of labor competitiveness.	The distinction is seen in Hunjet's research, which focuses on how labor market demands and higher education curricula align to produce highly skilled workers.
2.	Pacheco-Mendoza, S., Guevara, C., Mayorga-Albán, A., & Fernández-Escobar, J. (2023). Artificial Intelligence in Higher Education: A Predictive	*Education Sciences*, *13*(10), 990. https://doi.org/10.3390/educsci13100990	By focusing on the alignment between academic learning, professional skill development, and the demands of the workplace,	The research uses a descriptive qualitative approach through literature study and conceptual analysis of scientific articles,	The results of the study conclude that higher education plays a strategic role in producing highly qualified workers	This study is similar to previous studies in emphasizing the importance of higher	The difference lies in this study's particular emphasis on the direct link between higher educatio

	Model for Academic Performance.		this study seeks to investigate how higher education contributes to the production of highly skilled workers.	educational policies, and relevant supporting documents.	through the integration of theoretical knowledge, practical skills, and the development of soft skills.	education as a means of developing human resources and improving the competitiveness of the workforce.	n curricula and labor market needs as key factors in producing highly qualified workers.
3.	Mah, D.-K., & Groß, N. (2024). Artificial intelligence in higher education: Exploring faculty use, self-efficacy, distinct profiles, and professional development needs.	International Journal of Educational Technology in Higher Education, 21(1), 58. https://doi.org/10.1186/s41239-024-00490-1	The study aims to examine the role of higher education in producing highly qualified human resources by strengthening academic competence, professional skills, and twenty-first-century competencies	This study adopts a qualitative approach using a literature review and conceptual analysis of relevant academic articles, policy documents, and prior research	The findings indicate that higher education plays a strategic role in producing highly qualified personnel by integrating theoretical knowledge, practical skills, and soft skills such as critical thinking, innovation, and	This study shares similarities with previous research in emphasizing the importance of higher education as a key driver of human capital development and workforce compet	The difference by placing stronger emphasis on graduate readiness and the alignment between higher education systems and contemporary labour market demands as critical factors in producing

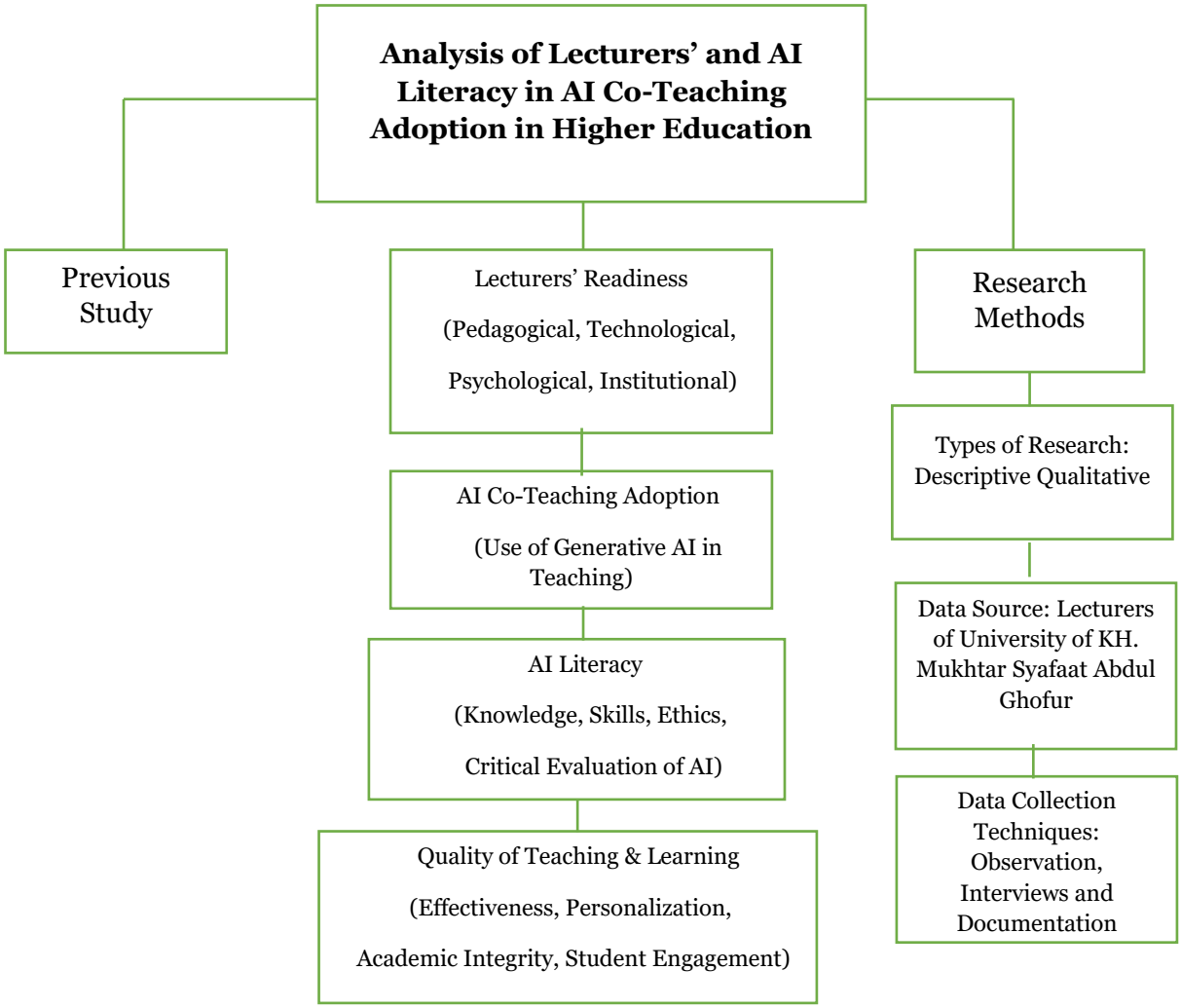
					adaptability	itiveness	highly qualified personnel
4.	Qian, Y. (2025). Pedagogical Applications of Generative AI in Higher Education: A Systematic Review of the Field.	*TechTrends*, *69*(5), 1105–1120. https://doi.org/10.1007/s11528-025-01100-1	The study aims to investigate the role of higher education in developing highly qualified personnel by examining how academic learning, professional skill development, and institutional support contribute to graduate competence	This study employs a qualitative research approach using a literature review and conceptual analysis of relevant scholarly articles, policy documents, and previous empirical studies	The study concludes that higher education plays a crucial role in producing highly qualified personnel through the integration of theoretical knowledge, practical skills, and soft skills such as critical thinking, adaptability, and innovation	This study shares similarities with previous research in emphasizing higher education as a central mechanism for human capital development and workforce competitiveness	The difference by placing greater emphasis on graduate readiness and the alignment between higher education systems and contemporary labor market requirements as key determinants in producing highly qualified personnel
5.	McGrath, C., Farazouli, A., & Cerratto-Pargman, T. (2025). Generative	*Higher Education*, *89*(6), 1533–1549. https://doi.org/10.1007/s1	The study aims to explore how higher education contributes to the	This research adopts a qualitative approach based on a systematic review of	The study concludes that higher education plays a vital role	This study aligns with previous research in	The difference by placing stronger emphasis on systemic

	AI chatbots in higher education: A review of an emerging research area	0734-024-01288-w	development of highly qualified personnel by examining the relationship between educational processes, skill formation, and workforce readiness	relevant academic literature and policy documents	in producing highly qualified personnel through the integration of disciplinary knowledge, practical experience, and transferable skills such as critical thinking and adaptability	recognizing higher education as a key driver of human capital development and economic competitiveness	alignment and institutional strategies within higher education that directly influence graduate quality and long-term workforce relevance
6.	Verboom, A. D. P. R., Pais, L., Zijlstra, F. R. H., Oswald, F. L., & Santos, N. R. D. (2025). Perceptions of artificial intelligence in academic teaching and research: A qualitative study from AI experts and	*International Journal of Educational Technology in Higher Education*, *22*(1), 46. https://doi.org/10.1186/s41239-025-00546-w	The purpose of this study is to explore how artificial intelligence (AI) is currently used and may be used in the future within academic teaching and research, as well as to identify	This study employed a qualitative research design using semi-structured interviews with 28 participants, including AI experts, AI-expert professors, and non-AI-expert professors from	The study concludes that AI has significant potential to enhance efficiency, creativity, and productivity in academic teaching and research, but its	The Across participant groups, there was a shared recognition that AI can improve efficiency and reduce repetitive tasks in academ	The differences emerged in attitudes and focus: AI experts tended to emphasize technical capabilities and innovation, while non-expert

	professors' perspectives		the opportunities and risks associated with its integration	Portugal, the Netherlands, and the United States	successful integration depends on aligning technological development with human and ethical considerations	ia, particularly in teaching preparation and research support	professors expressed greater concern about ethics, data privacy, and job security
7.	Mahadewi, M. P., Aysya, A. A. A., Sofiyani, Z., & Fahmi, F. (2025). The Importance of Literacy on Artificial Intelligence for the Higher Education Students: A Systematic Literature Review	*International Journal of Advances in Data and Information Systems*, *6*(1), 1–14. https://doi.org/10.59395/ijadis.v6i1.1350	The main objective of this study is to examine the importance of artificial intelligence (AI) literacy for higher education students in response to the rapid development of AI technologies	This study employed a scoping literature review approach to map and synthesize existing research on AI literacy in higher education. Literature was collected from four major databases Scopus, Web of Science, ScienceDirect, and Sage Journals	The study concludes that AI literacy is an essential competency for higher education students across all disciplines, not limited to technical or STEM fields	The Similarities include agreement on the need to integrate AI literacy into curricula and the importance of ethical awareness	The differences arise in focus and approach, with some studies emphasizing curriculum design and graduate employability, while others concentrate on ethical evaluation, self-regulated learning,

				using keywords related to AI literacy and higher education			or institutional challenges such as dense curricula and lack of academic incentives

2.3 Research Thought Flow



This research is entitled Analysis of "Lecturers' and AI Literacy in AI Co-Teaching Adoption in Higher Education". This Research use several previous studies, namely: (Malik, A. R., Pratiwi, Y., Andajani, K., Numertayasa, I. W., Suharti, S., Darwis, A., & Marzuki, 2023), (Pacheco-Mendoza, S., Guevara, C., Mayorga-Albán, A., & Fernández-Escobar, J, 2023), (Mah, D.-K., & Groß, N, 2024), (Qian, Y , 2025), (McGrath, C., Farazouli, A., & Cerratto-Pargman, T, 2025), (Verboom, A. D. P. R., Pais, L., Zijlstra, F. R. H., Oswald, F. L., & Santos, N. R. D,

2025), (Mahadewi, M. P., Aysya, A. A. A., Sofiyani, Z., & Fahmi, F, 2025).

Higher education has been profoundly altered by the quick development of Generative Artificial Intelligence (Generative AI), which has made it possible to create new methods for creating instructional materials, giving feedback, and conducting assessments. A new paradigm for teaching with AI has emerged as a result of this shift, in which teachers maintain their pedagogical authority and ethical duty while AI acts as a pedagogical partner to assist them in organizing, customizing, and assessing learning.

Faculty AI literacy, including their comprehension of how AI functions, their capacity to utilize generative AI tools critically, and their knowledge of ethical concerns and constraints, is crucial to this paradigm's efficacy. Faculty preparedness, including pedagogical, technological, psychological, and ethical readiness to incorporate AI into teaching methods, is strengthened by adequate AI literacy. Faculty members are more likely to accept AI co teaching in a meaningful and long-lasting way when they are adequately educated. In the end, effective use of AI co-teaching enhances student engagement and learning outcomes in higher education by enabling more individualized, effective, and reflective learning experiences.

The detailed information about lecturers' preparedness and AI literacy for implementing AI co-teaching in higher education, data for this study was gathered through observation, interviews, and documentation. The researcher was able to record real-time instructional behaviours and classroom interactions through observation of lecturers' teaching methods and their usage of generative AI tools during the teaching and learning process. To gain a greater understanding of pedagogical, technological, and ethical issues, lecturers' perspectives, experiences, and preparedness for incorporating AI into their teaching methods were investigated using interviews, especially semi-structured interviews. To triangulate and corroborate the results from observation and interviews, documentation was used to gather supporting data from course syllabi, instructional materials, institutional records, and pertinent policy papers.

CHAPTER III

RESEARCH METHOD

The method used in this study is a qualitative descriptive method, which aims to obtain an in-depth understanding of the phenomenon being investigated. The term method originates from the Greek word methods, meaning a way or procedure used to achieve a particular goal or to solve a problem, while *research* refers to a systematic and careful process conducted to achieve accurate, orderly, and well-planned results using specific methods.

3.1 Research Design

This study's research design is based on a qualitative descriptive approach, which attempts to characterize and explain the phenomenon of lecturers' AI literacy and preparedness for implementing AI co-teaching without changing the relevant factors (Doyle et al., 2020). In order to ensure that the evidence acquired can offer significant solutions to the research problems, a research design acts as the general framework or strategy utilized to address the research questions and direct all phases of the project, from data collecting to data analysis (Atmowardoyo, 2018).

To provide trustworthy and pertinent results, research design aids researchers in organizing their investigation logically and methodically. Studies that aim to correctly depict participants' experiences, perceptions, and behaviours in a natural setting are best suited for a qualitative descriptive design (Fossey et al., n.d.). This method focuses on getting rich, in-depth descriptions of the events as they happen. This allows the researcher to provide the data in plain language and interpret the results according to the viewpoints of the participants. This methodology offers a thorough overview of the thoughts and feelings conveyed by the participants rather than attempting to test hypotheses or measure variables quantitatively (Grossoehme, 2014).

This study uses qualitative descriptive research because it allows for an in-depth exploration of how lecturers perceive their own readiness and AI literacy in relation to the adoption of AI co teaching in higher education (Colorafi & Evans, 2016). Through this design, the researcher can gather nuanced information about

how lecturers understand, engage with, and make sense of AI co-teaching, capturing the complexity of human experience without imposing numerical or experimental constraints. By describing phenomena as they naturally unfold, the study offers insights that are grounded in real educational practice (Villamin et al., 2025).

3.2 Location and Time of Research

This Study Takes place at University of KH. Mukhtar Syafaat. Which is location In the Blokagung Village, Tegalsari District, Banyuwangi Regency, East Java Province.

3.3 Research Subjects

The study's participants were university lectures who were either directly or indirectly involved in the use of artificial intelligence (AI) in higher education, particularly in the context of AI co-teaching. Faculty members play a strategic role in guiding, mentoring, and overseeing the use of technology to ensure it remains consistent with academic principles and ethics. Therefore, it is important to assess the extent to which faculty members are prepared to address these changes, particularly in integrating AI into the learning process and academic writing, The selection of seven English Language Education (TBIG) faculty members at Mukhtar Syafaat University (UIMSYA) as research subjects was based on the consideration that these faculty members are directly involved in teaching academic writing skills and have experience in guiding students who use AI technology. Additionally, the number of 7 lecturers was chosen to allow for a more in-depth study using a qualitative approach, thereby enabling a more comprehensive exploration of the lecturers' perspectives, experiences, and readiness.

Use of digital technology or artificial intelligence in the classroom, and different degrees of AI literacy and preparedness. Because lecturers play a significant role in pedagogical decision making, their perspectives, experiences, and knowledge of AI readiness and literacy are the main sources of data used to analyse the adoption of AI co-teaching in higher education. For this reason, this study was considered relevant.

3.4 Informant

The subjects involved are often known as informants. They are important sources of information for addressing research problems. Faculty members play a crucial role in guiding the use

of technology. Such use must remain consistent with ethical standards and academic principles. Advances in AI are transforming the learning process. This requires faculty members to be able to adapt to technology. Therefore, it is important to assess faculty members' readiness to integrate AI. In this study, the informants were purposively selected university lecturers with teaching experience and direct or indirect involvement in the use of Artificial Intelligence (AI) in higher education. The informants were selected as sources of information or research subjects.

Each of the seven instructors from the English Language Education Study Program (TBIG) served as a research subject in this study faculty of tarbiya and teachers training the selection of seven English Language Education (TBIG) faculty members at Mukhtar Syafaat University (UIMSYA) as research subjects was based on the consideration that these faculty members are directly involved in teaching academic writing skills and have experience in guiding students who use AI technology. All the TBIG lecturers were chosen based on academic criteria, specifically the fact that the researcher was from the English Department and so had sufficient access to and contextual knowledge of the study program's learning process.

3.5 Data and Source Data

The method used by the researcher was interview and discussion. The research subjects were selected as sources of information or research subjects, each of the seven instructors from the English Language Education Study Program (TBIG) served as a research subject in this study faculty of tabiya and teachers training. Purposively chosen university lecturers provided the primary data sources. In depth interviews were used to gather information about lecturers' perception of adopting generative AI in higher education. Lecturers who had already incorporated AI into their teaching as well as those who were still in the exploratory phase were among the informants, offering a comprehensive viewpoint.

3.6 Data Collection Procedure

In conducting research, researchers follow a series of steps to collect data. These steps are outlined below:

a. Interview

Interview is one of the primary techniques in qualitative research used to collect in depth information through direct interaction between researchers and informants. According to John W. Creswell, qualitative interviews are conducted to explore participants' experiences, perspectives, and meanings related to a particular phenomenon. Through interviews, researchers can obtain detailed and contextual data that cannot be gathered through quantitative methods.

Methods researchers use to conduct interviews in qualitative research, including unstructured interviews. To gather consistent and easily comparable data, researchers conduct structured interviews using a systematic and standardized set of questions, asking each informant the same questions in a consistent order. They are typically employed when data is needed and the research objective is defined.

Unstructured interviews, on the other hand, are more flexible as they don't follow a predetermined set of questions; instead, they grow organically as the conversation progresses. To obtain a comprehensive knowledge based on the subjective experiences of informants, this approach is utilized to investigate phenomena that are yet open and have not been extensively explored.

NO	NAME	GENDER	TEACHING EXPERIENCE	MASTER OR DOCTORAL
1.	Lecture 1	Female	Lecture of UIMSYA	Master
2.	Lecture 2	Male	Lecture of UIMSYA	Master
3.	Lecture 3	Male	Lecture of UIMSYA	Master
4.	Lecture 4	Female	Lecture of UIMSYA	Master
5.	Lecture 5	Female	Lecture of UIMSYA	Master
6.	Lecture 6	Female	Lecture of UIMSYA	Doctoral
7.	Lecture 7	Male	Lecture of UIMSYA	Master

b. Data Transcription

The process of converting recordings of interviews, discussions, or conversations audio into a complete and systematic written text. This process aims to make data that was originally in audio form easier to read, understand, and

analyse in research, particularly qualitative research. In practice, transcription involves not only writing down the spoken words but may also include other elements such as pauses, emphasis, or specific expressions deemed important.

3.7 Data Validity

In this qualitative research, data validity was maintained through the concept of trustworthiness to ensure that the data truly reflected real conditions in the field. The data validity in this study was ensured through trustworthiness criteria, particularly credibility and confirmability. These aspects were used to ensure that the findings related to lecturers' AI literacy and readiness in implementing AI co-teaching were reliable and scientifically accountable (Ahmed, 2024).

Credibility was achieved by conducting direct interviews with lecturers as the research informants. During the interview process, the researcher recorded the informants' voices using a recording device to ensure that all information was stored completely and accurately. In addition, the researcher collected documentation in the form of photographs during the interviews as evidence that the data collection process was conducted directly in the field. These methods helped strengthen the accuracy and trustworthiness of the collected data.

Confirmability was maintained by ensuring that all findings were based on data obtained directly from the informants rather than the researcher's personal opinions. To support this process, the researcher kept research evidence such as interview recordings, interview transcripts, and photographic documentation. Therefore, the research findings could be verified and supported by empirical data gathered throughout the research process (Ahmed, 2024).

3.8 Data Analysis

The data were analysed by using Unstructured interviews, the data analysis technique used is thematic analysis. This analysis aims to identify, analyse, and interpret patterns of meaning (themes) that emerge from the interview data in a systematic and in-depth manner (Lomholt, 2025) .

1. Open Coding

   To fully comprehend the data content, researchers read interview transcripts several times. The goal of this approach is to find essential words, phrases, and statements that reflect the experiences, opinions, and interpretations of the informants about the application of AI in education. The identification process focused on several key areas, including lecturers' perceptions of the advantages and difficulties of utilizing AI in higher education, their experiences implementing AI co-teaching, their comprehension of the concepts and functions of AI, and their capacity to use AI as a learning support tool. Before the data was organized into more general categories and themes in the following stage of analysis, this step served as the foundation for the open coding procedure.

2. Selective Coding and Interpretation

   The main themes are integrated to answer the Research Questions (RQ) and construct a narrative of the research findings.

   To address all the research questions in this study, the primary themes that emerged from the data analysis process Technical AI Literacy, Pedagogical AI Literacy, Ethical Awareness, and Readiness for AI Co Teaching were combined. The findings demonstrated that instructors' comprehension, application, and integration of AI into teaching methods were significantly influenced by their degree of AI literacy (Du et al., 2024). In addition to using AI as a technical instrument, lecturers with sufficient AI literacy are typically able to use AI as a pedagogical partner that helps learning planning, execution, and assessment.

CHAPTER IV

FINDING AND DISCUSSION

4.1 Research Finding

4.1.1 Lecturers' Technical AI Literacy in higher education.

Technical AI Literacy refers to lecturers' ability to understand and use Artificial Intelligence (AI) technology effectively in teaching activities. Based on the interview results, several lecturers explained that AI is used as a supporting tool in education, not as a replacement for teachers. One lecturer stated, *"AI is a tool to help teaching"* (Lecturer 1, interview, 2026). This statement shows that AI helps lecturers' complete academic tasks more easily and efficiently. Another lecturer also said, *"AI is a helper, a friend, and helps correct writing"* (Lecturer 1, interview, 2026). This means that AI can support lecturers in checking students' writing, improving grammar, and preparing learning materials. Therefore, the ability to use AI technology has become an important skill for lecturers in modern education.

In addition, the lecturers emphasized that using AI also requires critical thinking skills. One lecturer explained that users should *"have the ability to think critically and filter AI so they are not easily fooled"* (Lecturer 1, interview, 2026). This statement shows that lecturers should not fully trust all information produced by AI because sometimes AI can provide incorrect or misleading answers. Lecturers need to check, evaluate, and verify the information before using it in academic activities. Therefore, Technical AI Literacy is not only about operating AI tools, but also about having critical awareness and good judgment when using AI in higher education.

Technical AI Literacy refers to lecturers' ability to understand and use Artificial Intelligence (AI) technology in teaching activities. Based on the interview results, several lecturers explained that AI is used only as a supporting tool, not as a replacement for lecturers in the classroom. One lecturer stated, *"AI is only an assistant, not a replacement for lecturers, helping teachers in teaching"* (Lecturer 2, interview, 2026). This statement shows that lecturers use AI to help complete academic tasks more easily and efficiently. AI can support lecturers in preparing teaching materials, organizing classroom activities, and making the learning process more

effective. This also shows that the ability to use AI technology has become an important skill for lecturers in the digital education era.

Several lecturers explained that AI skills are very important, especially in certain subjects related to technology and digital learning. One lecturer stated, *"It is very important for lecturers, especially when teaching certain subjects related to AI"* (Lecturer 3, interview, 2026). This statement shows that lecturers realize the importance of mastering AI technology to support teaching and learning activities. AI can help lecturers find information, prepare teaching materials, and make the learning process more effective and relevant to modern education. In addition, some lecturers explained that they have recently started using AI platforms in their academic activities. One lecturer said, *"I just used AI, such as ChatGPT and Gemini"* (Lecturer 3, interview, 2026). This statement indicates that although AI technology is still new for some lecturers, they are beginning to adapt to technological developments in education. ChatGPT and Gemini are used to help find references, generate teaching ideas, and complete academic tasks more quickly and practically.

Technical AI Literacy refers to lecturers' ability to understand, use, and guide the use of Artificial Intelligence (AI) technology in academic activities. Based on the interview results, several lecturers explained that students are allowed to use AI if it is used properly and responsibly. One lecturer stated, *"It is okay for students to use AI properly, it is allowed but, if possible, use the premium one"* (Lecturer 4, interview, 2026). This statement shows that lecturers understand the benefits of AI in supporting learning activities, especially when using more complete and higher-quality AI services. In addition, some lecturers started to become familiar with AI technology in recent years. One lecturer said, *"I heard about AI in 2023, creating AI"* (Lecturer 4, interview, 2026). This indicates that AI technology has recently become more widely known and used in higher education to support academic activities.

Furthermore, the lecturers explained that there are different AI applications for different academic needs and fields. One lecturer stated, *"There are specific AI tools for each field, such as ChatGPT, Grammarly, QuillBot, and Speechify"* (Lecturer 4, interview, 2026). This statement shows that lecturers already have basic knowledge about several AI platforms that can support teaching and

academic work. ChatGPT is used to generate ideas and prepare materials, Grammarly helps check grammar, QuillBot is used for paraphrasing, and Speechify helps convert text into speech. Therefore, Technical AI Literacy is not only about operating AI technology, but also about lecturers' ability to recognize, choose, and use suitable AI applications based on their academic and teaching needs.

Based on the interview results, several lecturers explained that they still rarely use AI in their daily activities because they are more familiar with traditional learning sources such as books. Lecturer 4 stated, *"I rarely use AI, only to deepen my understanding, I prefer to search in books"* (Interview, 2026). This statement shows that although lecturers already know about AI technology, its use is still limited and has not become the main source in the learning process. Lecturers still rely more on books and traditional academic references to gain deeper understanding of teaching materials. This shows that the Technical AI Literacy of some lecturers is still at the early stage of introduction and adaptation to AI technology. Lecturers' technical skills in using AI still need to be improved so that technology can be used more effectively in higher education learning activities.

In addition, lecturers' ability to understand and use Artificial Intelligence (AI) technology has become an important part of supporting the learning process in the digital era. Lecturers 6 explained that at first they rejected the use of AI in education, but over time they started to accept and learn about AI because technology continues to develop. She said, *"At first, we still rejected it, but now we accept it and include ICT subjects to study AI because we must follow technological development"* (Interview, 2026). This statement shows that lecturers realize the importance of adapting to digital technology so that teaching and learning activities remain relevant in modern education. The lecturer 6 also felt that AI has been very useful in their academic activities. And said, *"This past year, AI has been very helpful"* (Lecturer 6, interview, 2026). This statement indicates that AI supports lecturers in finding references, preparing teaching materials, and completing academic tasks more quickly and efficiently.

lecturers' ability to understand and use Artificial Intelligence (AI) technology has become an important part of supporting the

learning process in the digital era. Based on the interview results, several lecturers explained that their AI skills are still at a basic level, mainly limited to applying AI in academic activities. One lecturer stated, *"Only limited to the ability to apply AI"* (Lecturer 7, interview, 2026). This statement shows that lecturers already have basic knowledge in using AI technology to support academic tasks, such as finding information, preparing teaching materials, and helping classroom activities. However, some lecturers still use AI only for simple functions and have not used it deeply in teaching and learning activities. The lecturers are still in the adaptation stage to rapidly developing digital technology. Even so, their willingness to learn and try AI technology shows that they realize the importance of technological skills in education.

4.1.2 Lecturers' Pedagogical AI Literacy.

Besides technical skills in using AI, lecturers also need the ability to integrate Artificial Intelligence (AI) technology into teaching strategies and learning processes effectively. This ability relates to how lecturers use AI to support teaching and learning activities without ignoring academic rules and educational goals. Based on the interview results, lecturer 1 stated, *"There is no violation of integrity in using AI unless there are rules in the classroom"* (Lecturer 1, interview, 2026). This statement shows that the use of AI in education is considered acceptable if it follows academic regulations.

The use of Artificial Intelligence (AI) in the learning process shows that lecturers are developing pedagogical AI literacy in integrating technology into academic activities. Based on the interview results, one lecturer stated, *"I use AI such as ChatGPT to find theoretical frameworks and summarize materials, Canva AI for presentations and design, and Gen AI for research"* (Lecturer 2, interview, 2026). This statement shows that lecturers can use different AI applications based on learning and research needs. ChatGPT is used to help organize ideas and summarize materials, Canva AI is used to create more interesting presentation media, and Gen AI supports academic research activities.

Based on the interview results, one lecturer stated, *"It depends on the user himself, AI is a helper, not a creator of oneself"* (Lecturer 3, interview, 2026). This statement shows that the use of AI in education depends on how people use the technology.

Lecturers see AI as a supporting tool that can help teaching and learning activities, not as a replacement for human thinking and creativity. In addition, lecturers understand that the use of AI should be balanced with critical thinking and responsibility. AI should help the learning process, not make users fully dependent on technology. Therefore, lecturers have an important role in guiding students to remain active, creative, and independent even when using AI tools.

The lecturer explained that each AI application is used to support specific learning skills. One lecturer stated, *"I combine Rosepast for reading and speaking, Turnitin to check plagiarism, QuillBot to paraphrase, and Grammarly to check grammar"* (Lecturer 4, interview, 2026). This statement shows that lecturers can adjust the use of AI based on students' academic needs and the function of each application. AI is used to help improve reading, speaking, and writing skills, as well as maintain academic quality through plagiarism and grammar checking.

Amid the growing use of Artificial Intelligence (AI) in education, some lecturers still place books and reading sources as the main references in the learning process. Based on the interview results, one lecturer stated, *"I do not use AI to find lecture materials and learning references because I prefer the books that I read. Maybe I use AI when the material I need cannot be found in books"* (Lecturer 5, interview, 2026). The statement shows that the lecturer does not fully depend on Artificial Intelligence (AI) in the learning process. The lecturer prefers to use books as the main source because they are considered more reliable and provide deeper explanations. AI is only used in certain situations, especially when the needed information cannot be found in reading sources. This shows that the lecturer still maintains the use of traditional academic sources and is more careful in using AI technology in teaching and learning activities.

In the learning process, the use of AI not only gives benefits but also creates integrity that lecturers and students need to consider. Based on the interview results, one lecturer stated, "In my course, there is a subject called ICT, and I collaborate with AI in the teaching process" (Lecturer 6, interview, 2026). lecturers understand that AI should be used as a supporting tool in learning, not as a replacement for students' independent thinking and

learning abilities. AI can help students get ideas, improve writing, and understand learning materials more easily.

One lecturer also explained that the use of AI in learning is not a problem if users know how to use it properly. The lecturer stated, *"No, the important thing is to know how to correct it and know the limitations"* (Lecturer 7, interview, 2026). This statement shows that using AI also requires the ability to evaluate and correct AI-generated results. Users should not directly accept all information from AI because sometimes AI can produce inaccurate or unsuitable answers for academic purposes. the ability to integrate AI into teaching strategies is not only about using technology, but also about guiding students to use AI critically, wisely, and responsibly. Lecturers need to teach students about the limitations of AI and the importance of continuing to develop their own thinking, writing, and understanding skills.

4.1.3 Lecturers' Ethical Awareness.

lecturers' awareness of ethics, rules, and limitations in using Artificial Intelligence (AI) in the learning process. Based on the interview results, several lecturers realized that AI has both positive and negative impacts on academic activities. One lecturer stated, *"It can make people lazy to do many things, addicted to AI, and lose their character"* (Lecturer 1, interview, 2026). One lecturer also stated, *"Students become lazy and do not prepare seriously enough"* (Lecturer 3, interview, 2026). This statement shows that excessive use of AI can make students too dependent on technology and reduce their independent thinking, creativity, and learning character. One lecturer also said, *"AI does not hinder, but it really helps"* (Lecturer 1, interview, 2026). This statement shows that AI can become an effective supporting tool for finding information, understanding materials, and completing academic tasks more quickly and efficiently. Even so, lecturers still emphasize that the use of AI must be accompanied by ethical awareness, responsibility, and understanding of its limitations in educational environments.

Based on the interview results, one lecturer stated, *"For lecturers, as long as they follow the limitations, it is not a problem, but students still need limitations"* (Lecturer 2, interview, 2026). This statement shows that the use of AI is considered acceptable when it is used according to clear rules and limitations. one lecturer also stated, *"There must be limitations in using it"* (Lecturer 7,

interview, 2026). Lecturers are considered more able to use AI wisely and responsibly, while students still need supervision and guidance, so they do not become too dependent on technology. Lecturer 2 stated, *"It is fine, there are no obstacles because of the facilities, and on campus we must have internet access"* (Lecturer 2, interview, 2026). This statement shows that internet access and digital facilities are important factors in supporting the use of AI in educational environments.

One lecturer stated, *"Students' financial situation in using AI needs limitations, they should not be too free in using media"* (Lecturer 3, interview, 2026). This statement shows that lecturers are aware of financial and technological access factors that influence students in using AI. At the same time, lecturers emphasize that AI media should be controlled so students do not become too dependent on technology.

Based on the interview results, one lecturer stated, *"Reading literacy is still low, AI helps when students lose direction"* (Lecturer 4, interview, 2026). This statement shows that AI can become a supporting tool for students when they have difficulties finding ideas, understanding materials, or deciding what to do in the learning process. AI is considered helpful in providing information and supporting students in completing academic tasks more easily. lecturers explained that AI does not create many problems for lecturers because they can control its use properly. However, students are still often too dependent on AI. One lecturer stated, *"For lecturers there are no obstacles, but students become dependent and do not have the right balance"* (Lecturer 4, interview, 2026). This statement shows that students sometimes cannot balance their use of AI in academic activities.

In today's digital learning environment, lecturers are required not only to understand how to use Artificial Intelligence (AI), but also to be aware of the ethical aspects and limitations of its use in education. Based on the interview results, one lecturer stated, *"Being able to control oneself, understand the material when searching from AI, and having limitations"* (Lecturer 5, interview, 2026). This statement indicates that the use of AI in learning activities should be balanced with self-control and a clear understanding of the information generated by AI.

Although AI can support lecturers and students in finding information and understanding materials more easily, users should not immediately accept all AI-generated answers without checking and understanding the content first. Furthermore, lecturers explained that the successful use of AI in education depends greatly on the users themselves. One lecturer stated, *"There are no obstacles in using it, people just need to control themselves"* (Lecturer 5, interview, 2026). This statement shows that the main issue in AI use is not the technology itself, but how responsibly and wisely people use it.

As the use of Artificial Intelligence (AI) continues to grow in education, lecturers have become more aware of the importance of having clear guidelines and rules in using this technology so that it can positively support students' learning quality. Based on the interview results, one lecturer stated, *"There should be guidelines for using AI in order to maintain students' quality"* (Lecturer 5, interview, 2026). This statement shows that the use of AI in learning activities needs proper guidance so that the technology is used appropriately and continues to support students' academic quality. lecturers also emphasized the importance of balancing AI use with students' competencies in the learning process. One lecturer explained, *"The feedback should be balanced with their competencies"* (Lecturer 2, interview, 2026).

4.1.4 Lecturers' Readiness for AI Co Teaching.

The development of Artificial Intelligence (AI) in education shows that lecturers are becoming more ready to work together with technology in supporting the learning process. Based on the interview results, one lecturer stated, *"Having the ability to think critically and filter AI so as not to be fooled"* (Lecturer 1, interview, 2026). This statement shows that lecturers' readiness to use AI is not only related to technical skills, but also to critical thinking in evaluating AI-generated information.

In addition, lecturers have also used various AI applications to support academic and learning activities. One lecturer stated, *"Many AI tools are used, and the most helpful are ChatGPT and Gemini for correcting writing"* (Lecturer 1, interview, 2026). One lecturer also explained, *"The materials are already available, ChatGPT helps correct them, Canva is used for presentations, and premium AI is used for research and creating research outlines"*

(Lecturer 2, interview, 2026). This statement shows that lecturers have started using AI as a supporting tool in teaching, especially for improving writing and grammar. Lecturer also explained, *"Not only one, but there are also three that are used: Copilot, ChatGPT, and Gemini"* (Lecturer 6, interview, 2026). The use of AI tools such as ChatGPT and Gemini helps lecturers' complete academic tasks more quickly and effectively.

As digital technology continues to influence education, lecturers are beginning to show readiness to collaborate with Artificial Intelligence (AI) in supporting learning and academic activities. Based on the interview results, one lecturer stated, *"Learning from lecturers is based on results and students' competencies"* (Lecturer 2, interview, 2026). This statement shows that lecturers still focus on students' real abilities and competencies even when using AI support in the learning process. Lecturers understand that AI can help teaching and learning activities, but the learning outcomes should still reflect students' actual skills and understanding.

Changes in digital education have made the use of Artificial Intelligence (AI) more common in different fields of learning in higher education. Based on the interview results, one lecturer stated, *"Everyone is already using AI and adjusting it to their field, such as ICT, and it is very helpful for lecturers and students"* (Lecturer 3, interview, 2026). This statement shows that AI has started to be used in many academic fields according to the needs of each discipline. In ICT and digital learning, AI is considered very helpful because it supports teaching activities, information searching, and academic tasks more effectively and efficiently.

The advancement of digital technology in education encourages lecturers to improve their competencies in using Artificial Intelligence (AI) as part of the learning process. Based on the interview results, one lecturer stated, *"There are competencies for lecturers, seminars on digital technology use, and AI training"* (Lecturer 4, interview, 2026). This statement shows that lecturers are preparing themselves to face technological developments through seminars and training related to AI and digital technology. These activities help lecturers understand how to use AI more effectively in academic and teaching activities.

lecturers have also started using different AI applications to support teaching and research activities. One lecturer explained, *"Usually for making questions, creating outlines when confused, and using Humata AI for reviewing articles"* (Lecturer 4, interview, 2026). This statement shows that AI is used as a supporting tool for creating questions, preparing learning or research outlines, and reviewing academic articles. AI helps lecturers complete their work more quickly and provides ideas when they face difficulties in academic activities.

The use of Artificial Intelligence (AI) in education has made lecturers realize the importance of readiness and self-control when using this technology in the learning process. Based on the interview results, one lecturer stated, *"Yes, there must be control over the desire to use AI"* (Lecturer 5, interview, 2026). This statement shows that the use of AI should be accompanied by self-control so that the technology is not used excessively. In addition, some lecturers explained that they still use AI in simple ways according to their needs. One lecturer stated, *"I only use it as needed"* (Lecturer 5, interview, 2026). This statement shows that lecturers use AI only when necessary to support certain teaching and research activities.

The development of Artificial Intelligence (AI) in education has made lecturers increasingly required to have the ability to use this technology as part of the learning process. Based on the interview results, one lecturer stated, *"Yes, lecturers must have it and must master it"* (Lecturer 6, interview, 2026). This statement shows that mastering AI is considered important for lecturers so they can follow technological developments in modern education. Lecturers understand that the ability to use AI can improve learning effectiveness, support academic activities, and make teaching and research tasks easier.

The use of Artificial Intelligence (AI) in education has made lecturers realize the importance of balance in using technology during the learning process. Based on the interview results, one lecturer stated, *"There should be limits, not total dependence on AI"* (Lecturer 7, interview, 2026). This statement shows that AI should not be used completely without human thinking and abilities. Lecturers understand that AI is only a supporting tool in learning and not a replacement for lecturers' roles or students' abilities. lecturers explained that AI can become a partner that helps with

academic activities, especially in writing articles and research. One lecturer stated, *"Collaborating with AI really helps in writing articles"* (Lecturer 7, interview, 2026). This statement shows that lecturers are becoming more ready to work together with AI to support academic work more effectively and efficiently.

4.2 Discussion

The findings of this study are similar to several previous studies discussing AI literacy among lecturers in higher education. This study found that lecturers see AI as a supporting tool in teaching, not as a replacement for lecturers. AI is used to help prepare teaching materials, check grammar, search for references, and complete academic tasks more efficiently. These findings are in line with the study (Laupichler et al., 2022). which explains that AI literacy in higher education includes the ability to understand and use AI effectively in academic and learning activities.

The study also emphasizes that AI literacy is still developing and needs to be strengthened in higher education practice. Furthermore, this study also found that the use of AI must be accompanied by critical thinking skills because AI can sometimes provide inaccurate or misleading information. This finding is similar to the study (Caspari-Sadeghi, 2026a). which explains that AI literacy is not only related to technical skills in using AI, but also to the ability to evaluate information, understand risks, and use AI responsibly in education.

The results of this study support previous research related to pedagogical AI literacy in higher education. The findings show that lecturers are able to integrate Artificial Intelligence (AI) into teaching and learning activities by using various AI applications to support classroom instruction, academic writing, research, and presentation design. Lecturers use AI tools such as ChatGPT, Canva, Turnitin, QuillBot, and Grammarly according to specific academic needs. These findings are similar to the study (Hamidah & Dja'far, 2026).

Which explains that lecturers increasingly integrate AI into teaching practices to improve learning effectiveness and support digital pedagogy in higher education. Moreover, this study is also in line with the research (Mulaudzi & Hamilton, 2025). which found that lecturers consider AI as a useful educational tool that can

support personalized learning and improve academic efficiency, although ethical concerns and challenges still remain.

The findings of this study show that lecturers realize that the use of Artificial Intelligence (AI) in education has both benefits and risks. AI helps students and lecturers find information, understand materials, and complete academic tasks more quickly and efficiently. However, lecturers are also concerned that excessive use of AI can make students too dependent on technology and reduce their critical thinking skills, creativity, and independent learning. These findings are in line with the study (Madleňák et al., 2026). which explains that AI can support learning but also creates ethical challenges such as technology dependence and academic integrity issues.

In addition, this study also found that lecturers emphasize the importance of rules, limitations, and responsible AI use in the learning process. Lecturers play an important role in guiding students to use AI wisely, think critically, and understand the limitations of AI. These findings are consistent with the study (Susanto, 2026). which states that AI literacy is related to ethical learning behaviour and responsible use of technology. Another study (Zhu et al., 2025), also explains that lecturers have an important role in guiding students to use AI critically and ethically in academic activities.

The findings of this study show that lecturers are becoming more ready to collaborate with Artificial Intelligence (AI) in teaching and academic activities. Lecturers use AI to help improve writing, create presentations, prepare outlines, search for references, and support research so that academic work can be completed more quickly and efficiently (Homan, 2025). which explains that lecturers and teachers are becoming more prepared to use AI to support learning activities and academic work.

Lecturers understand that AI is only a supporting tool and should not replace human abilities, lecturers' roles, or students' learning competencies. These findings are consistent with the study (Vendrell & Johnston, 2026). which explains that AI should be used to support critical thinking skills rather than replace human thinking processes. Another study (Caspari-Sadeghi, 2026), also explains that lecturers need the ability to use AI critically, responsibly, and without becoming fully dependent on technology.

CHAPTER V

CONCLUSION AND SUGESSTION

5.1 Conclusion

This study found that most lecturers have a good level of readiness to adopt *Generative Artificial Intelligence* (Generative AI) as a co-teaching partner in higher education. The findings show that lecturers view AI as a supporting tool that can assist with various academic activities, such as preparing learning materials, improving writing, finding references, creating presentations, and supporting research activities. In terms of *Technical AI Literacy*, lecturers are familiar with and use various AI applications, including ChatGPT, Gemini, Grammarly, QuillBot, Canva AI, and Humata AI. In terms of *Pedagogical AI Literacy*, lecturers are able to integrate AI into the teaching and learning process while maintaining the role of humans as the main decision-makers and encouraging students to think critically and learn independently.

In addition, this study found that *Ethical Awareness* is an important factor in the use of AI in higher education. Lecturers recognize that AI offers many benefits in improving the efficiency of teaching and learning activities, but it can also create dependency, reduce critical thinking skills, and affect academic integrity if it is not used wisely. Therefore, lecturers emphasize the importance of clear limitations, supervision, and guidelines for AI use in educational settings. Overall, the findings indicate that lecturers have a positive readiness to collaborate with AI in the learning process. However, continuous training, improved AI-related competencies, and stronger institutional support are still needed to ensure that AI can be used effectively, responsibly, and in line with educational goals.

5.2 Limited Research

This study has several limitations that should be considered when interpreting the findings. The study was conducted only at the University of KH. Mukhtar Syafaat (UIMSYA) and involved seven lecturers from the English Language Education Study Program (TBIG). Therefore, the findings reflect the experiences and conditions of lecturers in this specific context and cannot be generalized to all lecturers or higher education institutions.

This study focused only on lecturers' perspectives regarding AI literacy and AI readiness in the context of AI co-teaching. It did not include students, university administrators, or other stakeholders who may also play important roles in the implementation of AI in higher education. As a result, the findings represent only the lecturers' viewpoints. The data were collected through semi-structured interviews and observations, which relied on the participants' experiences and perceptions. This may have led to subjective bias in some responses. In addition, because AI technology is developing rapidly, lecturers' AI literacy and readiness may change over time. Therefore, the findings of this study represent the situation at the time the research was conducted.

5.3 Suggestion

Based on the findings and limitations of this study, lecturers are encouraged to continuously improve their AI literacy and AI readiness through training, workshops, and professional development programs related to the effective and ethical use of Artificial Intelligence (AI) in education. In addition, higher education institutions are expected to provide adequate support, policies, and facilities to promote the integration of AI into teaching and learning activities.

Future researchers are encouraged to conduct similar studies with a larger number of participants from different study programs and higher education institutions. Expanding the research setting and participant pool may provide more comprehensive and representative findings regarding lecturers' AI literacy and AI readiness in various educational contexts. Furthermore, future researchers are encouraged to broaden the scope of the study by involving participants from different academic disciplines and institutions. This may provide a deeper understanding of AI literacy and AI readiness in higher education. Future studies may also use a wider variety of data collection methods to obtain richer data and strengthen the research findings.

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APPENDICES

APPENDIX 1: Guidance Card

6/6/26, 11:37 AM SISTEM INFORMASI MANAJEMEN AKADEMIK UIMSYA BLOKAGUNG ::

NIM	2211221025
NAMA	NAZA ILIL MUBAROKAH
FAKULTAS	TARBIYAH DAN KEGURUAN
PROGRAM STUDI	S1 TADRIS BAHASA INGGRIS
PERIODE	20252
JUDUL	CO-TEACHING WITH AI: LECTURERS READINESS AND AI LITERACY IN ADOPTING GENERATIVE AI IN HIGHER EDUCATION



No	Periode	Tanggal Mulai	Tanggal Selesai	Uraian Masalah	Bimbingan
1	20252	02 Juni 2026	06 Juni 2026	menyiapkan draft artikel	submit jurnal
2	20251	01 Juni 2026	02 Juni 2026	bab 5	suggestion disesuikan dengan limitation research
3	20251	30 Mei 2026	31 Mei 2026	acc bab 4	acc bab 4
4	20251	25 Mei 2026	27 Juni 2026	finding	menguraikan finding sesuai temuan data dan analisa data
5	20251	25 Mei 2026	30 Mei 2026	discussion	discussion menyesuaikan dengan finding dan dielaborasi dengan penelitian terdahulu
6	20251	20 Mei 2026	24 Mei 2026	finding	finding disesuaikan dengan research question
7	20251	10 April 2026	14 Juni 2026	persiapan pengambilan data	mematangkan metodologi penelitian
8	20251	06 April 2026	10 Juni 2026	acc bab 1 -3	acc bab 1-3
9	20252	17 Februari 2026	19 Februari 2026	research questions	fokus research question yang harus diperjelas, defintion of key terms ambil satu definisi dan berkaitan dengan penelitian
10	20251	05 Januari 2026	09 Januari 2026	acc proposal	acc proposal
11	20251	29 Desember 2025	02 Desember 2025	proposal bagian introduction	introduction diperjelas referensi dan alasan pengambilan objek penelitian
12	20251	24 Desember 2025	25 Desember 2025	skripsi bab 1	disesuaikan dengan buku panduan, referensi dimasukkan,
13	20251	02 Desember 2025	03 Desember 2025	proposal bagian method	diperjelas methodnya untuk data collection, data analysis
14	20251	22 November 2025	29 November 2025	pengajuan draft proposal	pengajuan draft proposal
15	20251	08 November 2025	15 November 2025	pengajuan judul yang kedua	pengajuan judul yang kedua
16	20251	01 November 2025	07 November 2025	pengajuan judul tugas akhir	pengajuan judul tugas akhir

APPENDIX 2: Certificate of Having Conducted Research

UNIVERSITAS KH. MUKHTAR SYAFAAT
FAKULTAS TARBIYAH DAN KEGURUAN
Blokagung - Banyuwangi
Alamat : PP. Darussalam Blokagung Banyuwangi, No Hp : 08113129333
E-Mail: official@uimsya.ac.id, Website: uimsya.ac.id, Kode Pos : 68491

UIMSYA

SURAT KETERANGAN

Nomor : 51.2.12/141/UIMSYA/FTK/C.3/VI/2026

Yang bertanda tangan dibawah ini Dekan Fakultas Tarbiyah dan Keguruan Universitas KH. Mukhtar Syafaat (UIMSYA) Blokagung Karangdoro Tegalsari Banyuwangi.

Menerangkan saudara yang namanya tercantum dibawah ini :

Nama	: **Naza Ilil Mubarokah**
NIM	: 2211221025
Prodi	: Tadris Bahasa Inggris (TBIG)
Fakultas	: Tarbiyah dan Keguruan (FTK)
Semester	: VIII (Delapan)
Alamat	: Sempu, Setail, Banyuwangi

Telah melaksanakan penelitian di Fakultas Tarbiyah dan Keguruan (FTK) Universitas KH. Mukhtar Syafaat (UIMSYA) Banyuwangi,untuk keperluan penyusunan Skripsi dengan judul : "Co Teaching With AI: Lecturers' Readiness And AI Literacy In Adopting Generative AI In Higher Education"

Demikian surat keterangan ini dibuat sebenar-benarnya untuk dipergunakan sebagaimana semestinya.

Blokagung, 03 Juni 2026
Dekan

Dr. Zulfi Zumala Dwi Andriani, S.S., M.A.
NIPY : 3150722128401

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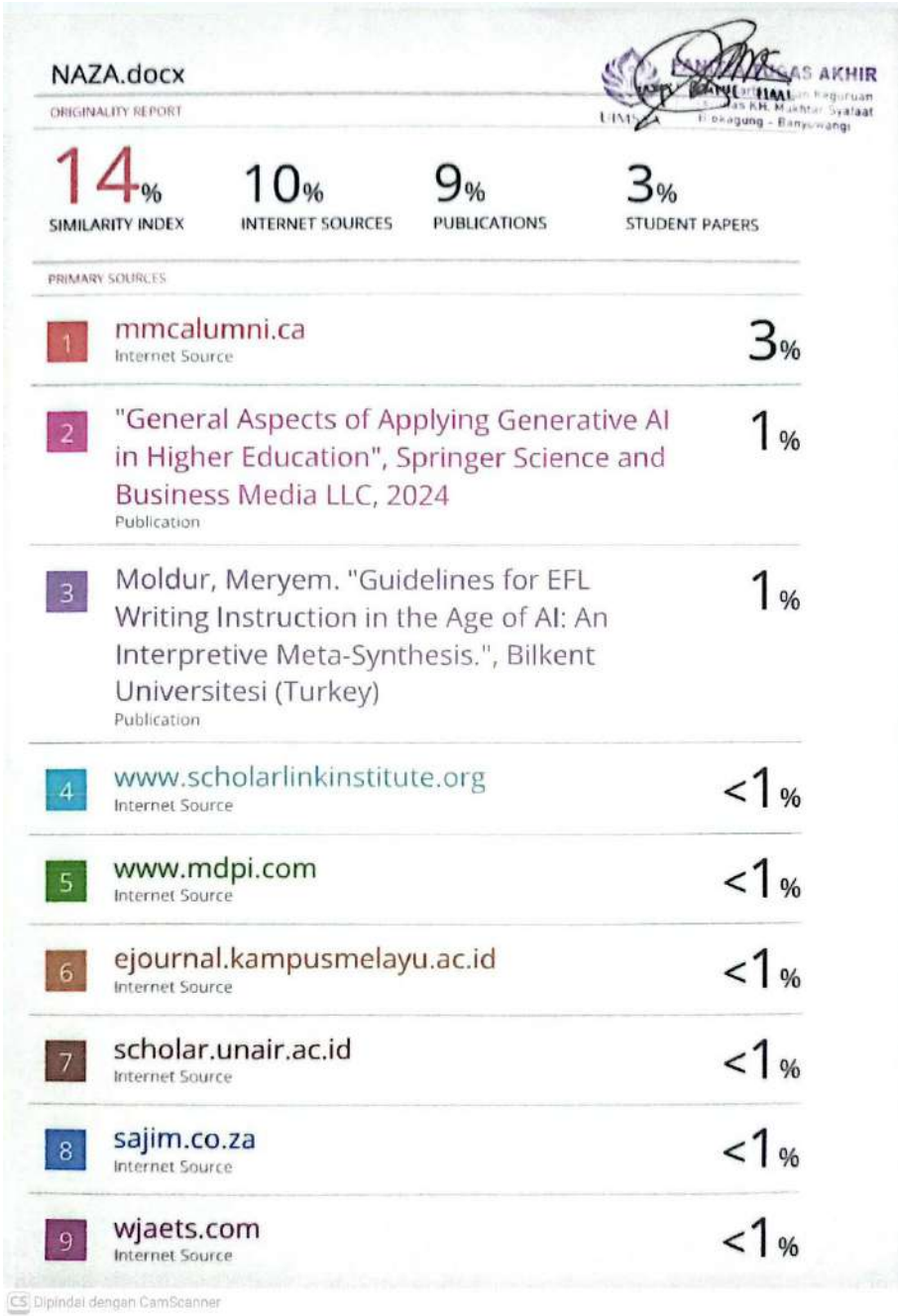
APPENDIX 3: Certificate of Plagiarism



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3	Moldur, Meryem. "Guidelines for EFL Writing Instruction in the Age of AI: An Interpretive Meta-Synthesis.", Bilkent Universitesi (Turkey) Publication	1%
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APPENDIX 4: Research Documentation



Picture 1. Interview with Lecture of UIMSYA English Department



Picture 2. Interview with Lecture of UIMSYA English Department



Picture 3. Interview with Lecture of UIMSYA English Department



Picture 4. Interview with Lecture of UIMSYA English Department



Picture 5. Interview with Lecture of UIMSYA English Department



Picture 6. Interview with Lecture of UIMSYA English Department



Picture 7. Interview with Lecture of UIMSYA English Department

APPENDIX 5: Interview Guidelines

Research Title: Co Teaching with Ai: Lecturers' Readiness and Ai Literacy in Adopting Generative Ai in Higher Education

Purpose of Interview: The objective of this study is to explore and describe lecturers' readiness and AI literacy in adopting Generative AI as a co-teaching partner in higher education. Specifically, this study aims to identify lecturers' readiness to integrate Generative AI into teaching practices, examine their level of AI literacy, explore their perceptions of AI-assisted co-teaching.

Type of Interview: Unstructured Interview

Place: Universitas KH. Mukhtar Syafaat (UIMSYA)

Interviewer: Naza Ilil Mubarokah

A. Interview Guidelines for Lecturers'

1. What is your understanding of Artificial Intelligence (AI) in the context of teaching and learning in higher education?
2. What extent are you familiar with and have used AI tools, such as ChatGPT, Gemini, Microsoft Copilot, or others, in your teaching activities?
3. What competencies do you think lecturers need to be ready to use AI in teaching and learning?
4. Do you collaborate with AI in your teaching process? If yes, how do you use it?
5. Which areas do AI help you the most, such as lesson planning, creating learning materials, developing assessments, grading, or other teaching tasks?
6. What concerns do you have about using AI in higher education?
7. What are the biggest challenges you face when using AI in teaching and learning?
8. What your opinion, can the use of AI by lecturers and students lead to violations of academic integrity?
9. Do you think the use of AI can improve the quality of teaching and learning in higher education?
10. What kind of support do you think is needed to successfully implement AI in teaching and learning?

APPENDIX 6: Interview Transcript

A. Interview Transcript with Lecturers'

Participant: Lecturer 1 (L1)

Researcher: "What is your understanding of Artificial Intelligence (AI) in the context of teaching and learning in higher education?"

Lecture 1: "In my opinion, AI is one of the tools used for teaching and as a support tool in the learning process."

Researcher: "What extent are you familiar with and have used AI tools, such as ChatGPT, Gemini, Microsoft Copilot, or others, in your teaching activities?"

Lecture 1: "I use AI from the preparation stage before teaching until the evaluation stage. I also use AI for writing tasks and use it quite often."

Researcher: "What competencies do you think lecturers need to be ready to use AI in teaching and learning?"

Lecture 1: "I think AI is a tool that helps us, but people still need to think critically when using it. We should not rely too much on AI, so that we can avoid being misled or receiving incorrect information."

Researcher: "Do you collaborate with AI in your teaching process? If yes, how do you use it?"

Lecture 1: "I use AI very often. I also teach my students how to use different AI tools. For example, when they want to create learning materials with animations, I recommend a suitable AI tool. If they want to add voice narration, I suggest another AI tool. Finally, I show them how to use AI for editing their work."

Researcher: "Which areas do AI help you the most, such as lesson planning, creating learning materials, developing assessments, grading, or other teaching tasks?"

Lecture 1: "I usually use two AI platforms, ChatGPT and Gemini, to support my teaching and academic activities."

Researcher: "What concerns do you have about using AI in higher education?"

Lecture 1: "In my opinion, using AI, too much can make us lazy. We may become less motivated to think and rely less on our own cognitive abilities."

Researcher: “What are the biggest challenges you face when using AI in teaching and learning?”

Lecture 1: "I believe that AI is a helpful tool and supports our work rather than creating obstacles."

Researcher: “What your opinion, can the use of AI by lecturers and students lead to violations of academic integrity?”

Lecture 1: "As long as there are no rules regarding the use of AI, I think it is acceptable to use it. In our institution, there are currently no specific regulations about AI use. However, if rules are introduced in the future, certain uses of AI might be considered violations."

Researcher: “Do you think the use of AI can improve the quality of teaching and learning in higher education?”

Lecture 1: "It is possible, because it depends on how people use AI. If it is used properly, it can have positive effects. However, if it is not used responsibly, it may lead to negative outcomes."

Researcher: “What kind of support do you think is needed to successfully implement AI in teaching and learning?”

Lecture 1: "When talking about AI, we definitely need gadgets or devices to access it. We also need clear guidelines so that AI is used as a supporting tool rather than becoming the main source for everything."

HISTORY LIST LIFE



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Sekertaris HMPS TBIG UIMSYA (2023 – 2024)

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THESIS

CO TEACHING WITH AI:

LECTURERS' READINESS AND AI LITERACY IN ADOPTING GENERATIVE AI IN HIGHER EDUCATION

