



# The Exploration students` attitude on Artificial Intelligence in the World of Educations: A Systematic Literature Review

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## Abstract

This systematic literature review provided several journal articles that contain about students` Attitude on artificial intelligence. /1This article used three databases, namely ERIC, Google Scholar and Taylor & Francis. A total of 25.093 articles were appeared, and only 4 of them were chosen after considering the criteria for exclusion and inclusion. The articles under consideration were published between 2022 and 2023. In general, this review is beneficial for practitioners because it allows them to learn which journal articles are prepared to be used in determining the gaps of Students` Attitude on artificial intelligence. This study found that the students who have a positive attitude in using artificial intelligence can improved their English skills.

**Keywords:** *Artificial Intelligence, Attitudes, Sytematic Literature Review*

## Introduction

In less than a decade, Indonesia has updated its curriculum three times, one of them is Merdeka Belajar, which was initiated by the Ministry of Education and Culture at Nadiem Makarim's request (Sugiri & Priatmoko, 2020). Minister Nadiem listed a number of benefits of putting the Merdeka Curriculum into practice. Because this curriculum will concentrate on fundamental content and the continuous development of student competencies, one of them is more detailed

and straightforward. The instructor will adapt their instruction to the developmental and attainment levels of each student. Teaching at the Right Level is a term used in the Merdeka Curriculum to describe a method of instruction that takes student ability or achievement into account (TaRL). According to Kemendikbud (2022b), teaching at the correct level (TaRL) refers to the ability level of the learner rather than the class level.

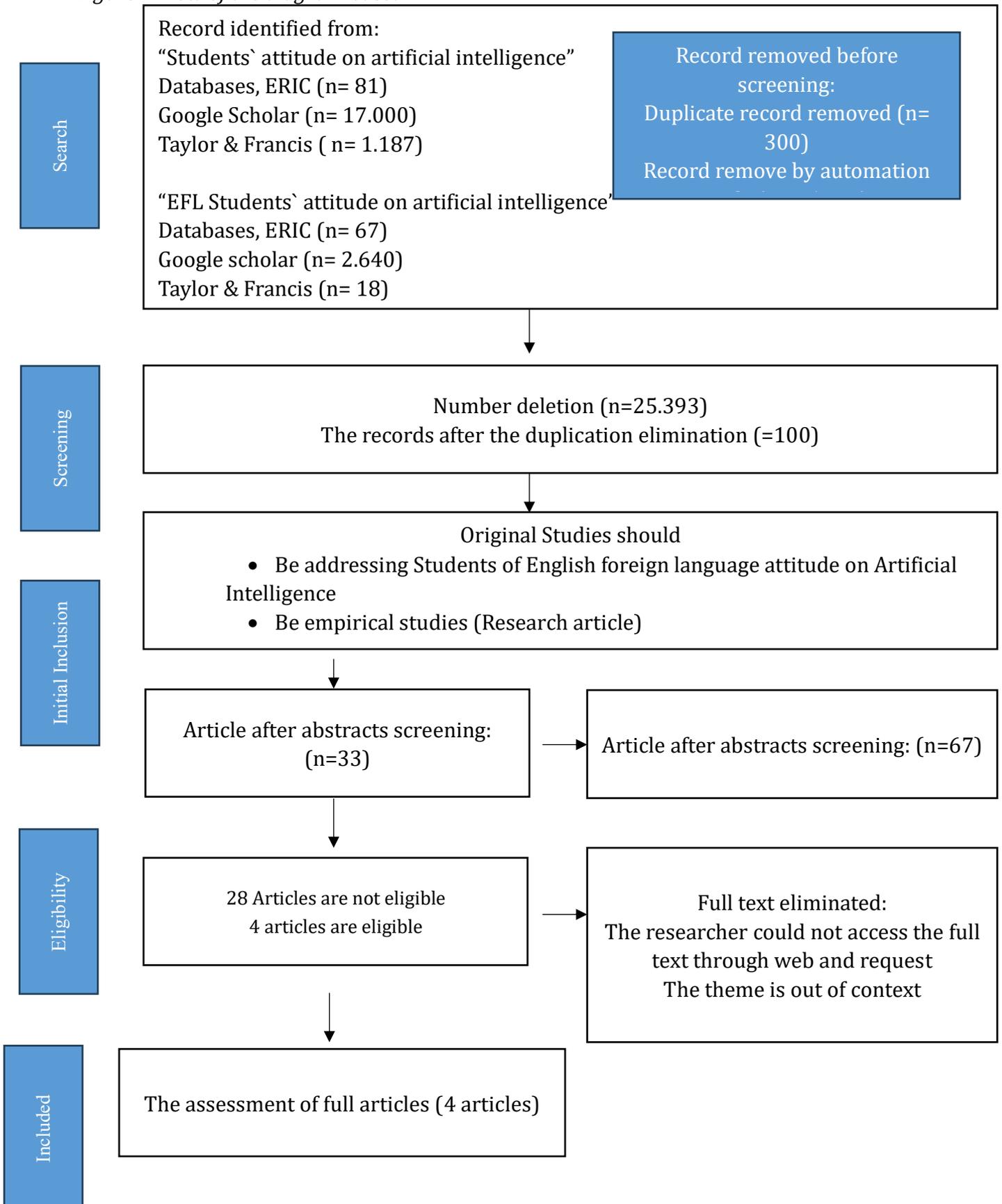
In order to design individualized learning routes that are specific to each student's needs and learning preferences, AI-powered adaptive learning systems can assess students' strengths and shortcomings. With this method, students can advance at their own rate and achieve better results (Velayutham, 2019). AI can also help automate the scoring of objective examinations, freeing up teachers' time for deeper connections with their pupils. Additionally, by utilizing techniques for natural language processing, artificial intelligence (AI) can assess difficult projects like essays (Gikas and Grant 2013). It is a great significance to improve the quality of education to use AI technology better in the complex language environment. (Radwan 2017)

In order to use technology correctly, one must have the necessary qualifications. More than that, users of AI must have an intelligent mindset, particularly in terms of education. Students need to be capable of making sensible interpretations of the idea using artificial intelligence. Hence, this systematic literature review would explain some researches of the attitude of the students in using artificial intelligence in the world of education.

## **Method**

The flow diagram, also known as PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analyses), was utilized in this article. The flow diagram, often called a flowchart, is the first visual in a systematic review's results section. The process of locating available data on the topic and selecting whether or not to include it in the review is represented by a PRISMA flow diagram.

Figure 1 Flow of the diagram based



There are five steps of PRISMA namely: 1) search the articles related to the topic, 2) screening the article, 3) arranged according to inclusion and exclusion standards, 4) examined the articles to determine their eligibility, and 5) composed the review.

The first step is searched the articles related to the topic. researchers used 3 databases such as Eric, Google Scholar, And Taylor & Francis with a range of 2023. When researchers typed "students` attitude on artificial intelligence" into search column in that website, it found that 81 articles from ERIC, 17.000 articles from google scholar, and 1.187 articles from Taylor & Francis. Researcher also searched "EFL Students` Attitude on Artificial Intelligence" it appeared 2.725 articles total.

The screening process comes next. This stage involves the researcher reading the article titles and abstracts before selecting data from the original studies, such as references to empirical studies published between January 1, 2022, and December 31, 2023, and students' attitudes about artificial intelligence. Consequently, automatic technologies discovered that 300 entries articles were already in another database (duplicated) and that 25.093 did not qualify.

Then, initial conclusion and eligibility stage was made in order to select articles using the "include and exclude criteria.". the researcher performed the full-text screening. After reading every article in its entirety, the researcher decided which one to "include/exclude" and which one not to. However, the criteria were: 1). Be addressing attitude on artificial intelligence. 2) be empirical studies (Research articles) 3). Be published from January 1<sup>st</sup> 2022 to December 31<sup>st</sup> 2023. There were several obstacles were found while reading the articles such as the article could not access the full text through web.

For the last stage, after excluding the irrelevant articles in flow diagram, it can be concluded that there are five articles that can be included in a quantitative synthesis. 28 articles were categorized as ineligible article because of some reasons.

Table 1. List of Article

Keywords	Year	Title	Journals
EFL Students` Attitude on Artificial Intelligence	2022	Artificial intelligence (AI)-based mobile learning in ELT for EFL learners: The implementation and learners' attitudes	International Journal of Educational Studies in Social Sciences
	2022	The Effect of Artificial Intelligence Application hon Jordanian EFL Sixth-Grade Students' Listening Comprehension and Their Attitudes Towards It.	Journal of Positive School Psychology
	2022	The Roles of Personality Traits, AI Anxiety, and Demographic Factors in Attitudes toward Artificial Intelligence	International Journal of Human-Computer Interaction
	2023	Analyzing Students' Attitudes and Behavior Toward Artificial Intelligence Technologies in Higher Education	International Journal of Recent Technology and Engineering (IJRTE)

Table. 2 Themes

Title	Focus	Sources
Artificial intelligence (AI)-based mobile learning in ELT for EFL learners: The implementation	The research focused on the implementation and effectiveness of artificial intelligence (AI) based mobile learning, specifically using the Novo Learning platform, in improving English competence	International Journal Of Educational Studies In Social Sciences 2022, Vol. 2, No. 2, 88 – 95 Doi: <a href="https://doi.org/10.53402/Ijess.V2i2.40">10.53402/Ijess.V2i2.40</a>

<p>and learners' attitudes</p>	<p>among non-English speaking students at a university in Indonesia. The study aimed to assess the impact of AI-based mobile learning on language skills and to explore students' attitudes towards this approach.</p>	
<p>The Effect Of Artificial Intelligence Application On Jordanian EFL Sixth-Grade Students' Listening Comprehension And Their Attitudes Towards It.</p>	<p>The focus of the research was to investigate the impact of Artificial Intelligence (AI) on Jordanian EFL sixth-grade students' listening comprehension levels and their attitudes towards it. The study used a quasi-experimental approach with an experimental and control group to compare the effects of an AI teaching technique on students' listening comprehension.</p>	<p>Journal of Positive School Psychology</p>
<p>The Roles of Personality Traits, AI Anxiety, and Demographic Factors in Attitudes toward Artificial Intelligence</p>	<p>The focus of the research is on investigating the relationship between personality traits, AI anxiety, and attitudes toward artificial intelligence (AI). The study aims to understand the factors that influence attitudes toward AI, including demographic characteristics, personality traits, and AI anxiety. It also seeks to validate the General Attitudes Toward</p>	<p>International Journal Of Human-Computer Interaction <a href="https://doi.org/10.1080/10447318.2022.2151730">https://doi.org/10.1080/10447318.2022.2151730</a></p>

	Artificial Intelligence Scale (GAAIS) and provide insights into the predictors of attitudes toward AI.	
Analyzing Students' Attitudes and Behavior Toward Artificial Intelligence Technologies in Higher Education	The focus of the research is on understanding students' attitudes and behavior towards the use of artificial intelligence (AI) in higher education, particularly in the context of Saudi Arabia. The study utilizes the Unified Theory of Acceptance and Use of Technology (UTAUT) model to analyze the factors influencing students' attitudes and behavioral intention to use AI in education. It also explores the potential benefits of AI in education and the need for its effective implementation	International Journal of Recent Technology and Engineering (IJRTE) <i>DOI:</i> <a href="https://doi.org/10.35940/ijrte.F7475.0311623">10.35940/ijrte.F7475.0311623</a>

*Table 3 Result of the Review*

No	Author	Aim	Method	Findings	Recommendation
1	Dini Noor Arini, Fahmi Hidayat, Atiek Winarti, and Elsa Rosalina	The aim of the research was to investigate the implementation and effectiveness of artificial intelligence (AI) based mobile learning, specifically using	Quasi experimental study	The research findings indicated that the use of AI-based mobile learning, specifically the NovoLearning platform, had a significant impact on the English competence of non-	The research findings suggest that the implementation of artificial intelligence-based mobile learning, particularly using the NovoLearning platform, can significantly improve English competence

		<p>the Novo Learning platform, in improving English competence among non-English speaking students at a university in Indonesia. The study sought to assess the impact of AI-based mobile learning on language skills and to explore students' attitudes towards this approach.</p>		<p>English speaking students. The experimental group, which received the AI-based mobile learning treatment, showed a higher mean score (81.2) compared to the control group (74.7) in terms of English competence. Additionally, the study revealed that students had positive attitudes towards using the NovoLearning platform, with many expressing that it provided more learning opportunities and was helpful in improving their English skills.</p>	<p>among non-English speaking students. The positive attitudes of students towards this approach further support its potential effectiveness. Therefore, it is recommended that educational institutions consider integrating AI-based mobile learning tools like NovoLearning into language education programs to enhance language skills and provide a supportive learning environment for students</p>
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2	Hadeel Mahmou d Al-mawaly, Dina A. H. AL-Jamal	The aim of the research was to investigate the impact of an AI teaching technique on Jordanian EFL sixth-grade students' listening comprehension levels and their attitudes towards it. The study aimed to compare the performance of students in the experimental group, using AI, with those in the control group, and to determine the effectiveness of AI in improving students' listening comprehension across different sub-levels.	Quasi experimental approach	The research findings indicated that the AI teaching technique had a significant impact on the listening comprehension levels of the sixth-grade EFL students. The instructional method explained a substantial percentage of the variance in various aspects of phonological awareness, including literal comprehension, critical literacy, and inferential understanding levels [2]. The AI teaching strategy was found to improve students' performance across all six sub-levels of listening comprehension, with a large impact factor	The research suggest that the AI teaching technique had a positive impact on students' listening comprehension levels and their attitudes towards learning, indicating the potential of AI in enhancing language learning outcomes
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3	<p>Feridun Kaya, Fatih Aydin, Astrid Schepman, Paul Rodway, Okan Yetişensoy, and Meva Demir Kaya</p>	<p>The aim of the research is to investigate the relationship between personality traits, AI anxiety, and attitudes toward artificial intelligence (AI). The study aims to understand the factors that influence attitudes toward AI, including demographic characteristics, personality traits, and AI anxiety. It also seeks to validate the General Attitudes Toward Artificial Intelligence Scale (GAAIS) and provide insights into the predictors of</p>	<p>mixed-method approach</p>	<p>The findings of the research indicated that AI learning anxiety and AI configuration anxiety were significant predictors of negative attitudes toward AI. Additionally, agreeableness was found to be a significant predictor of negative attitudes toward AI, while emotional stability became non-significant in the model. The study also validated the Turkish General Attitudes Toward Artificial Intelligence Scale (GAAIS) and demonstrated its reliability and validity in the Turkish adult sample</p>	<p>The study's findings suggest that personality traits, level of computer usage, knowledge of AI, and AI anxiety are significant predictors of attitudes toward AI. Additionally, the study validated the Turkish version of the General Attitudes Toward Artificial Intelligence Scale (GAAIS), demonstrating its reliability and validity in the Turkish adult sample. The study's recommendations include the need for policymakers to reassure the public about the safety of AI, integrate AI education into school curriculums, and provide government support for AI research. These</p>
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		attitudes toward AI.			recommendations align with the study's findings and highlight the importance of addressing public perceptions and concerns about AI through education and policy initiatives.
4	Latifa Alzahran	The aim of the research is to understand students' attitudes and behavior towards the use of artificial intelligence (AI) in higher education, particularly in the context of Saudi Arabia. The study utilizes the Unified Theory of Acceptance and Use of Technology (UTAUT) model to	Quantitative Survey	The study reported that AI was a valuable tool that could lend strong support to innovative education policies, and AI chatbots could facilitate the provision of personalized assistance to students who require solutions to specific problems . However, it is important to note	The findings suggest that addressing factors such as perceived risk, performance expectancy, effort expectancy, facilitating conditions, awareness, and attitude can positively influence students' attitudes and behavior towards AI in higher education. The study also highlights the potential benefits of AI in education and the

		<p>analyze the factors influencing students' attitudes and behavioral intention to use AI in education. It also explores the potential benefits of AI in education and the need for its effective implementation.</p>		<p>that most of the studies reviewed were position studies in which researchers expressed personal views on issues related to AI in education, and the number of studies that conducted a bibliographic analysis of AI in education was limited</p>	<p>need for its effective implementation. Furthermore, the addition of new constructs to the UTAUT model, such as AWR and PR, and the emphasis on addressing technological challenges and ensuring the usability of AI systems in higher education provide valuable recommendations for future research and practical implementation. Overall, the research offers valuable insights into the acceptance and adoption of AI technology in educational settings and provides a foundation for further exploration of this important topic</p>
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### **Discussion**

The research findings suggest that the use of AI-based mobile learning significantly improved the English competence of non-English speaking students. Additionally, students had positive attitudes towards using the platform and found it helpful in improving their English skills.

### **Conclusion**

The researcher successfully found that students` attitude in using artificial intelligence are positive and also the proficiency of non-English speaking pupils in English was considerably enhanced with the implementation of Artificial Intelligence.

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